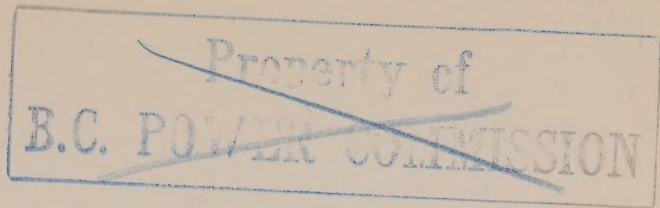




CANADA YEAR BOOK

1957-58



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Canada year book

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The opening of the Twenty-Third Parliament of Canada on October 14, 1957, was an occasion of unprecedented significance for Canadians. Her Majesty Queen Elizabeth II, accompanied by His Royal Highness the Prince Philip, read the Speech from the Throne and thus became the first Sovereign to inaugurate in person a session of Parliament as Head of State of Canada.



CANADA YEAR BOOK

1957-58


THE OFFICIAL STATISTICAL ANNUAL OF THE RESOURCES,
HISTORY, INSTITUTIONS, AND SOCIAL AND ECONOMIC
CONDITIONS OF CANADA

Published by Authority of
The Honourable Gordon Churchill, Minister of Trade and Commerce

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PREFACE

The 1957-58 edition of the Canada Year Book continues a series of annual publications giving official statistical and other information on almost every measurable phase of Canada's development. As the economy of the country has expanded, the Dominion Bureau of Statistics has extended its program of statistical compilation and analysis and the Canada Year Book has endeavoured to present the story of this development, summarizing a great mass of detailed statistical information concisely within the covers of one volume and supplementing it with data from other Departments of the Federal Government and from the provinces.

Special feature articles are presented in each edition of the Year Book. Those in the current issue include: "The International Geophysical Year" (pp. 35-38); "Developments in Canadian Immigration" (pp. 154-176); "Health in Canada" (pp. 232-235); "The Philosophy of the Royal Canadian Mounted Police" (pp. 332-334); "Postwar Agriculture" (pp. 392-396); "The Pulp and Paper Research Institute of Canada" (pp. 489-491); "Canada's Mineral Industry 1956-57" (pp. 495-518); "Groundfish Species in the Canadian Fisheries" (pp. 591-595); "The Changing Pattern of Canada's Housing" (pp. 732-734); "History of the Labour Movement in Canada" (pp. 795-802); "The Telecommunications Branch of the Department of Transport" (pp. 894-896); and "A History of Canadian Journalism 1752 (circa)-1900" (pp. 920-934).

In addition, other features have been introduced and extensive revisions made in the textual and statistical material of the various chapters. Among these are analyses of the Population and Agriculture Census of 1956; an expanded treatment of the executive and legislative branches of the Federal Government and a revised summary and chart on the administrative functions of its various departments and agencies; a brief outline of Canada's international activities during 1955-57; a new survey of formal education and an initial account of the Canada Council in support of the arts, letters and social sciences; a further instalment on the construction of the St. Lawrence Seaway and Power Project and of oil and gas pipelines, as well as the up-dating of basic material dealing with such subjects as immigration, vital statistics, public health and welfare, scientific, medical and industrial research, forestry, water power development, mineral production, manufacturing, the labour force, prices, public finance, banking, insurance, transportation and communication by various media, the domestic marketing of commodities, foreign trade, national income and expenditure and Canada's international investment position. Numerous charts graphically portray significant trends in the developing Canadian economy, while the Introduction (pp. xi-xix) describes briefly the state of the economy during 1957.

The concluding chapter, entitled "Sources of Official Information and Miscellaneous Data", presents handy reference material listing Government information services, special material published in earlier Year Books, federal legislation of recent sessions of Parliament, a Canadian chronology of events, a register of official appointments, and a statistical summary of the progress of Canada since 1871.

In the Appendix certain material on Government (Chapter II) is brought up to the date of going to press, including a listing of the personnel of the Eighteenth Ministry of Canada and the names and addresses of the Members of the House of Commons elected on Mar. 31, 1958, together with the Fifteenth Ministry of Manitoba.

Enclosed in the pocket on the inside back cover of the volume are two maps: a detailed map depicting the principal mineral areas and a map showing the distribution of population based on the 1956 Census, specially printed on transparent paper to facilitate its use as an overlay on the mineral map.

The present volume has been produced in the Canada Year Book Section of the Information Services Division by Miss M. Pink, Assistant Editor of the Year Book and Chief of the Section, with the assistance of Mr. H. Crombie, Miss C. Freeth and the Year Book staff, under the editorship and direction of Dr. C. C. Lingard, Director of the Division. Charts, graphs and maps (not otherwise credited) have been prepared in the Drafting Unit of the Bureau.

The co-operation of numerous officials of the various Departments of the Canadian and Provincial Governments and of this Bureau in the preparation of material for the Year Book is gratefully acknowledged. Credit by means of footnotes is given where possible either to the persons or to the branches of the public service concerned.

Information bearing on any errors or omissions and suggestions respecting methods of treatment are welcomed by the Director of the Information Services Division.

Walter E. Duffett.

DOMINION STATISTICIAN

DOMINION BUREAU OF STATISTICS,
Ottawa, July 1, 1958.

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WEIGHTS AND MEASURES AND OTHER INTERPRETATIVE DATA

In Canada as a rule the Imperial system of weights and measures is followed. An exception however is the ton where, unless otherwise stated, the short ton of 2,000 lb. is meant. Billion where used represents 1,000 million.

The following table shows the weights and measures used in Canada in connection with the principal field crops and for wheat flour and fruits:—

| | <i>Pounds per Bushel</i> | | <i>Pounds</i> |
|-------------------|------------------------------|---------------------------------------|---------------|
| Grains— | | Fruits (standard conversions)— | |
| Wheat..... | 60 | Apples, per barrel..... | 135 |
| Oats..... | 34 | Apples, per box..... | 43 |
| Barley..... | 48 | Pears, per bushel..... | 50 |
| Rye..... | 56 | Plums “ “..... | 50 |
| Buckwheat..... | 48 | Cherries “ “..... | 50 |
| Flaxseed..... | 56 | Peaches “ “..... | 50 |
| Corn..... | 56 | Grapes “ “..... | 50 |
| Mixed grains..... | 50 | Pears, per box..... | 42 |
| All others..... | 60 | Strawberries, per quart..... | 1.25 |
| | | Raspberries “ “..... | 1.25 |
| | | Loganberries “ “..... | 1.25 |

Wheat Flour—

1 barrel equals 196 pounds; approximately 4.5 bushels of wheat are used in the production of a barrel of flour.

Relative Weights and Measures, Imperial and United States

The following list of coefficients may be used to translate amounts expressed in one unit to the other. It must be borne in mind that where the list below refers to Imperial pint, quart and gallon, their equivalent in ounces is also in Imperial measure; likewise United States designations for these quantities are shown in the U.S. equivalent in ounces. The Imperial (or British) fluid ounce and the U.S. fluid ounce are different measures, 1 Imperial fluid ounce equalling 0.96 United States fluid ounce. Similarly 1 Imperial gallon equals 1.2 United States gallon.

| | |
|--|--|
| 1 Imperial pint=20 fluid ounces. | 1 Imperial proof gallon=1.36 United States proof gallon. |
| 1 United States pint=16 fluid ounces. | 1 Short ton=2,000 pounds. |
| 1 Imperial quart=40 fluid ounces. | 1 Long ton=2,240 pounds. |
| 1 United States quart=32 fluid ounces. | 1 Barrel crude petroleum=35 Imperial gallons. |
| 1 Imperial gallon=160 fluid ounces. | |
| 1 United States gallon=128 fluid ounces. | |

Fiscal Years of Federal and Provincial Governments

The fiscal year of the Federal Government and of each of the ten Provincial Governments ends on March 31.

Throughout the Year Book, fiscal year figures are indicated in the text and headings of tables; otherwise figures are for calendar years.

ERRATUM

Page 308: Cross references in the first paragraph to Chapter II should read "pp. 58-59 and 59-60" instead of "pp. 42-43 and 43-44".

INTRODUCTION

THE CANADIAN ECONOMY DURING 1957*

The year 1957 was characterized by a marked levelling off in the rate of economic activity. This change in the upward trend in the major economic indicators in 1957 followed a period of sharp advances during the preceding two years. It will be recalled that in 1955 and 1956 demand was expanding very rapidly and large quarter-to-quarter increases were occurring in the value of the nation's total production, the gross national product. By 1957, however, this quarter-to-quarter advance in final expenditures had slackened appreciably and in the fourth quarter of the year a moderate decline in output was recorded. Gross national product, seasonally adjusted at annual rates, amounted to \$31,460,000,000 in the fourth quarter of the year compared with \$31,748,000,000 in the third quarter, and \$31,443,000,000 for the year 1957 as a whole.

The rapid expansion of investment outlays which was a notable feature of 1955 and 1956 moderated in 1957; investment in machinery and equipment declined in the last three-quarters of the year, and the rate of growth in outlays for non-residential construction slackened. On the other hand, residential construction began to move upward during the year, following a period of successive declines. Accompanying these developments, exports of goods and services, which had earlier provided one of the main stimulants to investment in resource industries, moved irregularly at a level barely in excess of the year 1956. At the same time, the upsurge in imports that occurred in 1956 subsided in 1957, and declines were recorded in the seasonally adjusted value of imports of goods and services throughout the course of the year. Business inventory accumulation, which reached its peak in the middle of 1956, declined steadily throughout 1957 and in the fourth quarter of the year shifted to a position of moderate net liquidation.

It may be noted that while neither final purchases nor inventories were creating new demands on production in the fourth quarter of 1957, a good deal of the effect of the curtailment on the flow of expenditures was mitigated by the decrease in the imports of goods and services which amounted to 4.5 p.c. between the third and fourth quarters of the year.

Associated with these developments on the expenditure side in 1957, national income rose by almost 3 p.c. above the level of the previous year, though it was moving downward in the fourth quarter. Corporation profits declined steadily throughout the year from the peak reached in 1956, and registered a drop of about 7 p.c. on the year-to-year comparison. Labour income continued to rise in 1957 until the fourth quarter of the year, when it moved downward slightly in association with declines in employment; however, on the full year's comparison, labour income was more than 7 p.c. above the level of the year 1956, this being the major factor behind the 5-p.c. rise in personal income. As has been noted, crop production fell sharply in 1957, and this was reflected in a decline of \$400,000,000 in accrued net income of farm operators from farm production. There was a very small gain in net income of unincorporated non-farm enterprises in 1957, in contrast with the fairly substantial gains that had occurred in the preceding two years.

These changes in the main statistical aggregates resulted in a gross national product in 1957 of about \$31,443,000,000, a gain of 4 p.c. over the level of the year 1956 in value terms, but basically unchanged from the preceding year in terms of the physical volume of output; thus, price factors were the major element in the higher value of production in 1957. The unchanged volume of output in 1957 compares with the unusually large gains of about 7 p.c. in 1956 over 1955 and 9 p.c. in 1955 over 1954. It should be noted in this connection that the production figures in 1957 include a sharp drop in crop output. The decline in grain production is estimated to have amounted to about 1 p.c. of the gross national product, so that the non-farm gross national product in 1957 was higher than in 1956 by about 1 p.c. in volume terms.

* Prepared in the Research and Development Division, Dominion Bureau of Statistics.

PRODUCTION BY INDUSTRIES

The physical volume of output of all industries producing goods and services was at about the same level in 1957 as in 1956. When agriculture is removed from the comparison the remaining industries show an increase of about 1 p.c.; this increase was apparent in both the total for services-producing industries and that for goods-producing industries, exclusive of agriculture. These aggregates, however, hide important and divergent movements at the industry level.

During the course of 1957 there was a decrease in the rate of productive activity in certain industries. On a seasonally adjusted basis, goods output (less agriculture) declined throughout the year. Total services output was irregular during 1957 but a general decline was not apparent. The volume of production for manufacturing declined about 8 p.c. between January and December and most of the fall-off was concentrated in the durable manufactures group. Mining production rates kept increasing until April but were unsettled for the remainder of the year. Primary forest output fell off substantially during the year owing to deteriorating export and domestic markets. Transportation industries reflected the rather unsettled industrial production picture in 1957 and tended to move with manufacturing, forestry and mining.

In comparing annual output levels, agriculture was down about 17 p.c. in 1957. The volume of farmers' marketings fell almost 7 p.c. while the volume change in farm grain stocks reflected the substantially smaller crop in 1957. From a production standpoint, grain output in 1957 fell by about one-half as compared with 1956 but production of animal products remained practically unchanged. In the other primary resource industries movements were varied. Forestry output, affected by deteriorating domestic and foreign markets for pulpwood and lumber, was down by more than 11 p.c. Both pulpwood cut and output of other forest products were down by about the same percentage. Fishing and trapping output declined moderately in 1957. Electricity and gas utilities continued to expand; the output of electric power showed a 4-p.c. increase while gas distribution, reflecting the sharply increasing use of natural gas, advanced 14 p.c. The total output of Canadian mines showed one of the smallest increases in the postwar period with a gain of 6 p.c. Metals and fuels were up 12 and 5 p.c. respectively but non-metal mining was down 2 p.c. Uranium production rose sharply and accounted for most of the increment in metals. Small production gains were recorded for gold and nickel, while small decreases showed up in copper, silver, iron ore, lead and zinc. In contrast with recent years when iron ore exports showed substantial gains, only a minor advance was recorded in 1957. During the later months of the year export volume was down from corresponding months of 1956 mainly because of cut-backs in United States' steel-using industries. Within fuels, crude petroleum output rose 6 p.c. and more than offset a 12-p.c. decline in coal production. However, the small increase in petroleum mining represented a substantial change from the very large production gains in recent years.

The physical volume of output of manufacturing industries was off nearly 2 p.c. in 1957 with non-durables up slightly and durables down 5 p.c. Within the non-durable group of manufacturing industries, gains in output were recorded by chemicals, foods and beverages, leather, tobacco and tobacco products and products of petroleum and coal. Almost offsetting these increases, however, were declines in rubber products, textiles, clothing and paper. Printing and publishing showed little change. Within the durable group, every major industry group except non-metallic mineral products, which rose moderately, suffered production set-backs ranging from 2 p.c. in transportation equipment to 9 p.c. in wood products. Iron and steel, non-ferrous metal products and electrical apparatus and supplies declined 5, 6 and 8 p.c. respectively.

Within the services-producing division of industries, only the transportation, storage and communications group reflected reduced volume of activity and this was largely concentrated in railway freight. In the later part of 1957 there was a very noticeable slowdown in activity in civil aviation and oil pipelines—industries which had shown substantial gains in recent years. The communications component continued to expand, reflecting the substantial expansion of radio and television broadcasting and telephone

services. Retail and wholesale trade volume showed little change in 1957 compared with 1956. Two important changes occurred within retail trade—grocery chains increased their volume of sales by more than 8 p.c. and motor vehicle dealers suffered a decline of about 10 p.c. Within the other services-producing industries—including finance, insurance and real estate, and government and other services—available related data suggest increased volume of activity ranging from 3 to 5 p.c.

EMPLOYMENT

Turning now to employment, the number of persons with jobs in 1957 averaged 5,661,000, a gain of 135,000 or 2.4 p.c. over 1956. The number of persons with jobs in the non-agricultural sector rose by about 3.4 p.c. It may be noted that this increase in non-farm employment was considerably higher than the year-to-year gain in non-farm production, which was estimated to have risen by only about 1 p.c. The divergence between the employment and output indicators implies a decline in output per person employed in 1957. This development may be partly explained by a decline in average hours worked per week in 1957 since such a decline occurred in manufacturing and mining. Another factor may be the reluctance of employers to dismiss workers in the initial stages of production cut-backs pending clarification of the outlook for new orders. Also, there is some evidence to suggest that in both Canada and the United States the very large additions to plant capacity in recent years have increased the need for administrative and over-head staff relative to the requirements for production workers.

The increment to the labour force in 1957 was 210,000, almost twice the average rate of growth in the preceding five years. This unusually large increase is associated with higher participation rates as well as with the extraordinarily high level of immigration in 1957. The number of persons without jobs and seeking work averaged 254,000 persons for the full year, that is, 4.3 p.c. of the labour force compared with 3.1 p.c. in 1956. In addition, the number of persons on short time or temporarily laid off averaged about 50 p.c. higher than in the preceding year. In the fourth quarter of 1957, persons without jobs and seeking work accounted for 5.0 p.c. of the labour force.

PRICES

Final product prices continued to advance throughout 1957, though the rate of increase slackened appreciably during the course of the year. It is estimated that the price element in the gross national product rose by only about one-quarter of 1 p.c. from the third to the fourth quarter, constituting the smallest quarter-to-quarter increase in a two-year period. For the year as a whole, end product prices in 1957 averaged about 4 p.c. above those of the year 1956.

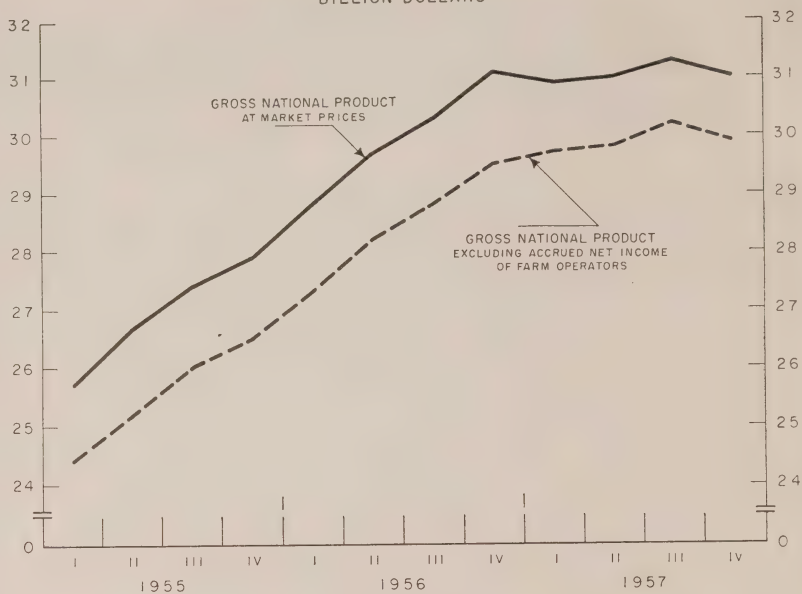
The 3.7-p.c. advance in the consumer sector in 1957 was substantially greater than the price rise in this sector in the preceding year, when it amounted to only 1.7 p.c. The 4.1-p.c. rise in the price of investment goods in 1957, however, was slightly less than the previous year's rise of 5.6 p.c.

After the end of 1956, the advance in final product prices was not accompanied by price increases as measured by the general wholesale price index; from the fourth quarter of 1956 through to the fourth quarter of 1957, the wholesale price index declined by about 1 p.c. compared with an advance of 3 p.c. for the corresponding period of 1956. The prices of raw and partly manufactured goods and of industrial materials declined by 5 and 7 p.c. respectively in this period, compared with gains of 2 and 3 p.c. in the same period a year previously. Fully and chiefly manufactured goods advanced by 1 p.c. from the end of 1956 to the fourth quarter of 1957, compared with an advance of 4 p.c. for the same period of the preceding year. From the third to fourth quarters of 1957, the wholesale price index declined by about 1 p.c. The impact of these changes in wholesale prices is, to some extent, reflected in the valuation of inventories by business. It is estimated that the inventory valuation adjustment required for national accounts purposes amounted to only about \$60,000,000 for the year 1957, compared with the \$260,000,000 adjustment made in 1956.

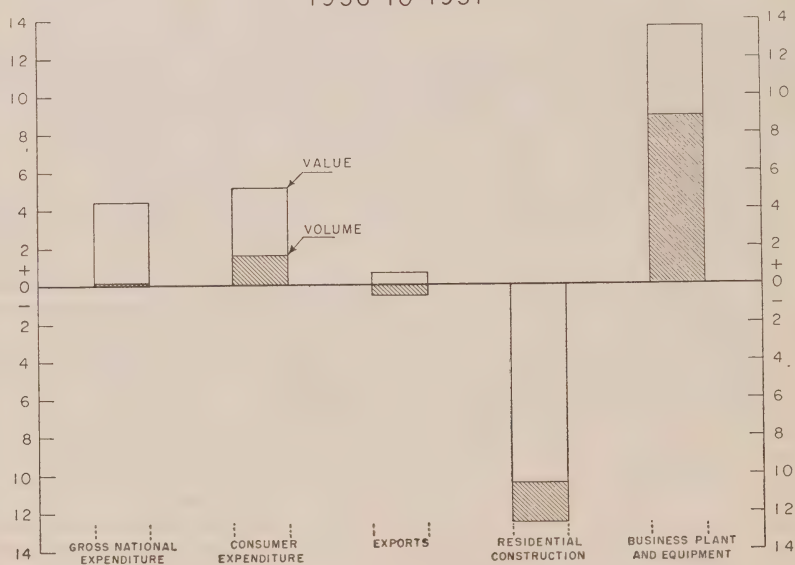
GROSS NATIONAL PRODUCT, 1955-1957

(SEASONALLY ADJUSTED ANNUAL RATES)

BILLION DOLLARS



PERCENTAGE CHANGES IN VALUE AND VOLUME OF GROSS NATIONAL EXPENDITURE AND SELECTED COMPONENTS 1956 TO 1957



THE COMPONENTS OF GROSS NATIONAL EXPENDITURE

Personal consumption expenditures rose to \$19,768,000,000 in 1957, close to 6 p.c. higher than in 1956. All the increased spending was on services and non-durables; purchases of durables remained stable. The major part of the rise in total spending represents the higher prices prevailing in the consumer sector. The modest increase in the real volume of consumption in 1957 is in contrast to the decided gains recorded in the two preceding years; on a per capita basis, real consumption fell slightly, the first such decline since 1950-51.

Purchases of non-durable goods were up about 5 p.c., with the largest gains in food, alcoholic beverages, tobacco and gasoline. Purchases of clothing were moderately higher. Prices of non-durable goods averaged nearly 3 p.c. higher in 1957, mainly as a result of the rise in prices of food, so that real consumption was to that extent lower than the value figures indicate.

Outlays for durable goods were stable in 1957. House furnishings was the only category of durable goods that showed any increase. Purchases of appliances and radios were about the same as in 1956. In real terms, purchases of durables in 1957 were about 3 p.c. below the level of the preceding year.

In this connection, it is interesting to note that consumer credit outstanding on the books of instalment finance companies increased only 3 p.c. in 1957, in contrast to increases of 26 p.c. in 1956 and 22 p.c. in 1955, both years in which purchases of durables were high and rising.

Consumer expenditure on services rose 9 p.c., with increases recorded in all the groups. One of the largest gains was in expenditure on shelter, reflecting the addition to the stock of housing and the rise in rents. Spending on personal service and medical care rose substantially. The rise in prices, some 4.5 p.c., was very pronounced in the services sector.

GOVERNMENT EXPENDITURE ON GOODS AND SERVICES

Government expenditure on goods and services amounted to \$5,612,000,000 in 1957, 7 p.c. higher than in 1956, with the major increases at the provincial and municipal levels. Most of the increase at all levels of government was accounted for by larger expenditures for wages and salaries and for construction.

BUSINESS GROSS FIXED CAPITAL FORMATION

In 1955 and 1956 the high and rising demand in world markets for the products of Canada's resource-based industries encouraged a vigorous expansion of productive capacity. This expansion centred on those industries producing raw materials and radiated to the fuel, power and transportation industries. Accordingly, an unusually large number of such projects were initiated in those years. In 1957, business expenditures for plant and equipment rose to \$5,965,000,000, an increase of nearly 14 p.c. over the preceding year. This increase reflected the large number of projects undertaken in earlier years and at various stages of completion in 1957, as well as those launched during 1957. The 1957 gain compares with an increase of 37 p.c. in 1956 and thus represents a distinct slowing down in the extraordinarily high rate of growth characteristic of the latter year.

Within business expenditures for plant and equipment, the emphasis in 1957 shifted strongly toward new construction which, at \$3,233,000,000, was about 25 p.c. higher than in 1956. This shift was partly attributable to the fact that expenditures on such major projects as the St. Lawrence Seaway and Power Project and the Trans-Canada Pipeline were moving towards their peak in 1957. Expenditures for new machinery and equipment were \$2,732,000,000, only about 3 p.c. higher than in 1956, in contrast to an increase of 34 p.c. in the preceding year. Purchases of machinery and equipment appear to have reached their peak in the first quarter of the year. Both domestic shipments and imports of the main categories of machinery and equipment declined in the second half of 1957.

Considering the business investment program in 1957, major increases occurred in transportation and storage where a gain of 50 p.c. followed one of 87 p.c. in the previous year, and in public utility operation where a gain of 24 p.c. followed one of 49 p.c. in 1956. These two groups, which had absorbed about 29 p.c. of total business investment in 1956, accounted for 54 p.c. of the total in 1957. The two major projects mentioned earlier, the Seaway and the Trans-Canada Pipeline, were in part responsible for the importance of these two groups. The increases in capital expenditures in service industries, trade and communications were also fairly large, ranging from 16 to 19 p.c. On the other hand, capital expenditures in manufacturing were only slightly higher than in the previous year, with substantial increases in some manufacturing industries nearly counterbalanced by declines in others. In mining, quarrying and oil wells, there was a further advance over 1956 but in the other primary industries, and in the construction industry, capital expenditures were lower than in the preceding year, much the most marked rate of decline being in forestry where new investment fell by more than 40 p.c.

Expenditures on new residential construction in 1957 amounted to \$1,424,000,000, 7 p.c. lower than in 1956. In response to easier conditions in mortgage markets and an improved supply of labour and materials, housing starts, which on a seasonally adjusted basis had been falling during 1956, made a strong recovery during 1957, and by the last quarter of the year were running at a rate of nearly 150,000 units compared with about 86,000 in the first quarter. For the year as a whole, about 122,000 housing units were started and about 117,000 completed, compared with 127,000 starts and 136,000 completions in 1956.

Of the 9-p.c. increase in total business gross fixed capital formation, about half represented higher prices. The largest element of price increase, about 5 p.c., was in the machinery and equipment sector, with the result that the volume of such purchases was lower by 2 p.c. In residential construction the price factor amounted to about 3 p.c., leaving this component lower in real terms by about 9 p.c.; in non-residential construction, the element of price increase was somewhat larger, leaving the volume of such expenditures higher by more than 20 p.c.

INVESTMENT IN INVENTORIES

The addition to inventories is estimated to have been \$142,000,000 in 1957 compared with \$815,000,000 in 1956. This sharp decline in the rate of accumulation reflects some liquidation of farm stocks and a marked slackening in the rate of build-up of business inventories, which amounted to \$243,000,000 in 1957 compared with about \$545,000,000 in 1956. The peak rate of accumulation reached in the second quarter of 1956 gave way to a falling rate of investment in stocks which continued until the last quarter of 1957 when some liquidation took place.

The lower rate of investment in business inventories in 1957 was common to almost all industry groups but was especially pronounced in manufacturing. Among manufacturing industries, the most marked decline occurred in iron and steel and in pulp and paper products; two other industries, electrical apparatus and supplies and wood and wood products, shifted from accumulation in 1956 to liquidation in 1957. Only a few manufacturing industries showed a higher rate of accumulation in 1957 than in 1956, foods and beverages being among them. There was some build-up in the clothing industry in 1957, as opposed to a drawing-down of stocks in 1956.

Additions to stocks of retailers and wholesalers were also much lower in 1957 than in the preceding year. In the durable groups there was either a smaller rate of accumulation or actual liquidation; in the non-durables group, however, accumulation in some instances was higher than in the preceding year.

EXPORTS AND IMPORTS OF GOODS AND SERVICES

Exports of goods and services amounted to \$6,375,000,000 in 1957, a fractional increase over 1956 which compares with increases of about 10 p.c. in the two preceding years. A small gain in commodity exports in 1957 was partially offset by a decline in receipts from invisible items.

Canada's exports of goods and services rose sharply in 1955 and 1956, against a background of continued expansion of industrial production in Western Europe, of recovery from recession in the United States, and a greatly enhanced capacity to supply many of the basic commodities demanded on world markets. In 1957, markets for some primary products weakened, with the result that commodity exports at \$4,909,000,000 were very little higher than in 1956. Further advances in exports of the products of some newly developed resource industries helped to offset losses elsewhere—for example, the gains in uranium and oil. However, of the nine commodity groups, only two were lower than in 1956: exports of agricultural and vegetable products were off more than \$140,000,000 or about 15 p.c., reflecting the sharp reduction in sales of wheat and other grains; in the wood, wood products and paper group, a drop of 4 p.c. was associated with weaker markets for lumber and wood pulp. A gain of 5 p.c. in exports of non-ferrous metals and their products was the outcome of a large increase in sales of uranium, from \$46,000,000 to \$128,000,000, a substantial increase in exports of nickel, and declines in all other major metals; the decline in exports of copper, lead and zinc products (the prices of which were down considerably) amounted to about \$50,000,000 or 16 p.c. Exports in the non-metallic group were up 19 p.c. Crude petroleum exports were \$141,000,000, a 36-p.c. gain despite the marketing problems that developed during the course of the year, and significant gains were reported in the exports of asbestos and asbestos products. Exports of iron and its products were higher by about 13 p.c., reflecting increases in farm and other machinery as well as in sales of iron ore. Additional gains were made in animal and animal products where exports were up about \$42,000,000 or 16 p.c., almost all of which was attributable to a more than four-fold increase in sales of cattle.

Receipts from invisibles were \$1,466,000,000 in 1957, nearly 3 p.c. lower than in 1956. Receipts from tourists and on interest and dividend account were higher but receipts from freight, miscellaneous items and sales of gold declined.

Imports of goods and services, at \$7,758,000,000, showed very little change in 1957 from the level of the previous year, a relative stability contrasting with gains of 19 and 16 p.c. in 1956 and 1955. The value of commodity imports in 1957 was, in fact, somewhat lower than in 1956, but payments for services rose.

Imports of commodities amounted to \$5,487,000,000 in 1957, a drop of about 1.5 p.c. from the preceding year. The earlier strong upward trend was reversed during the course of the year and was associated with the turn-around in machinery and equipment outlays, the falling rate of inventory accumulation, and the lower level of consumer outlays for durables. Imports of passenger cars and trucks were down 21 p.c., farm implements and machinery by 13 p.c., mining and metallurgical machinery by 9 p.c., and rolling-mill products by 6 p.c. Imports of iron and its products in total were lower by 4 p.c. in contrast to the impressive increases in this category in the two preceding years (nearly 40 p.c. in 1956). Imports of non-ferrous metals and products were also somewhat lower. The changes in the main commodity groups, positive and negative, were all fairly small.

Payments for services rose to \$2,271,000,000 in 1957, about 4 p.c. higher than in 1956. The most important element in this increase was the 16-p.c. increase in interest and dividends paid abroad but there were also increases in the other invisible items, the single exception being freight and shipping for which payments were slightly lower.

The deficit on international current account was \$1,383,000,000 in 1957, only slightly above the previous peak reached in 1956. However, the imbalance on services was sharply higher, rising from \$624,000,000 to \$805,000,000 and displacing merchandise trade as the principal source of the deficit. By the fourth quarter of 1957, the deficit had fallen to an annual rate of \$1,100,000,000, from the peak in the second quarter of \$1,600,000,000.

The rise in price in the external sector was comparatively small in 1957. While export prices receded a little during the course of the year, they averaged slightly higher for the year as a whole than in 1956. The margin of increase was somewhat greater for import prices. Thus, in terms of volume, exports of goods and services were stable while imports of goods and services showed a slight reduction.

THE COMPONENTS OF GROSS NATIONAL PRODUCT

LABOUR INCOME

Labour income rose to \$15,825,000,000 in 1957, more than 7 p.c. above the year 1956. With the number of paid workers up about 3 p.c. and hours of work somewhat reduced in some major industries, a large part of this increase was attributable to higher wage rates.

Almost all industrial groups shared in the advance. The service industries continued to absorb more workers, in keeping with the postwar trend in the growth of these industries. Thus, the largest income gains were recorded in the services-producing industries, with increases of between 10 and 14 p.c. in trade, finance, insurance and real estate, services proper (personal, business, community, recreational and government), public utilities and communications. The increase in labour income in the mining industry was of the same general order, reflecting an advance in employment and in wage rates. In manufacturing, where somewhat increased employment and higher wage rates were offset by shorter hours, the rise in labour income was 5 p.c. The 8-p.c. advance in labour income in the construction industry contrasted with the very much larger gains recorded in this industry in the previous year. Forestry was the only major industry in which labour income declined, reflecting the sharply reduced employment and income in this industry in the latter part of the year.

INVESTMENT INCOME

Investment income in 1957 was \$4,684,000,000, an amount 2 p.c. lower than in the preceding year. A drop in corporate profits of about 7 p.c., coupled with a further substantial advance in dividends paid abroad, reduced corporate profits entering national income by 11 p.c. Government investment income was little changed in total, since the fall in government trading profits (mainly the result of reduced earnings of the Canadian National Railways) was approximately offset by increases in other components of government investment income. Interest, dividends and net rental income of persons rose by 11 p.c.

Among the major divisions, the only industries showing higher profits in 1957 were finance and retail trade, where increases were both 8 p.c.; within manufacturing, only the food and petroleum industries earned larger profits in 1957, with gains of 7 and 5 p.c. respectively. Profits fell most sharply in the wood products and non-ferrous metal groups of manufacturing. In the mining industry the rate of decline was 27 p.c. to 30 p.c. The deterioration in foreign and domestic markets reduced prices and curtailed output for some of the products of these industries, with consequent adverse effects on earnings. Profits in transportation, communications, storage and public utilities as a group were down about 6 p.c.

NET INCOME OF UNINCORPORATED BUSINESS

Accrued net income of farm operators from farm production is estimated to be \$968,000,000, \$400,000,000 less than in 1956, a decrease reflecting mainly the much smaller crop of major grains in the Prairie Provinces. According to preliminary estimates, however, farm cash income is estimated to have declined by only 5 p.c.; smaller participation payments by the Canadian Wheat Board and lower returns from sales of grains and poultry products accounted for this decline.

Net income of non-farm unincorporated business amounted to \$1,941,000,000 in 1957, slightly higher than in the preceding year. Incomes in trade and services continued to rise, reflecting the growth of consumer demand in these sectors, but the lower level of housing adversely affected net income in the construction industry.

INDIRECT TAXES LESS SUBSIDIES

Indirect taxes less subsidies amounted to \$3,802,000,000 in 1957, about 6 p.c. higher than in 1956. The easing in the demand for imports was reflected in lower yields from customs import duties but this loss in revenue was more than offset by higher yields from excise duties and taxes, leaving federal indirect taxes about 1 p.c. above the level of 1956. Provincial and municipal revenues from indirect taxes increased by roughly similar proportions, 9 or 10 p.c., with the bulk of the increase attributable to gasoline taxes at the

provincial level and to real and personal property taxes at the municipal level. Subsidies were lower by \$13,000,000, mainly because of smaller payments by the Federal Government on the cost of storing grain.

PERSONAL INCOME AND SAVING

Personal income amounted to \$23,142,000,000 in 1957, an increase of about 5 p.c. over the preceding year; this was a significantly larger increase than occurred in national income, which rose by only 3 p.c. Transfer payments advanced by 18 p.c. and showed the largest gain of any component of personal income. Rates of payment under the family allowance and old age security schemes were raised during the course of the year and a new transfer payment out of oil royalties was introduced in the Province of Alberta. The larger volume of unemployment, together with some extension of benefits, raised payments in the form of unemployment benefits by 45 p.c. Maintenance of dividend payments despite a fall in corporate profits was another factor in the divergence between national and personal income.

With a progressive tax structure, the rise in taxable incomes made for a fairly sharp increase in personal direct taxes, which were up 11 p.c. Income at the disposal of consumers for spending amounted to \$21,235,000,000, 5 p.c. above the level of 1956. Since consumer prices were over 3 p.c. higher, personal disposable income in real terms advanced only moderately, in contrast to the substantial advance that occurred in 1956; on a per capita basis, real disposable income declined slightly in 1957.

The advance in consumer spending matched fairly closely the rise in disposable income, leaving the rate of personal saving only slightly lower than in the preceding year. Personal saving dropped to \$1,467,000,000 in 1957 from \$1,541,000,000 in 1956.

NATIONAL SAVING AND INVESTMENT

Gross national saving fell from \$6,219,000,000 in 1956 to \$6,063,000,000 in 1957. The sources of saving were considerably altered. The surplus on consolidated government account, which at \$379,000,000 represented a significant part of total saving in 1956, was reduced to \$52,000,000 in 1957. Savings in the form of undistributed profits were also lower. An increase in depreciation allowances acted as a partial offset to the reduction in the other forms of saving.

The sharply reduced rate of accumulation of inventories (which shifted downward by \$673,000,000) brought the level of total gross capital formation slightly below the 1956 level. However, in 1957 as in 1956, total national saving fell short of investment requirements and this deficiency was met from foreign sources. In both years the deficit on international current account amounted to about \$1,400,000,000, and this imbalance was chiefly financed by net inflows of capital for long-term investment.

GROSS NATIONAL SAVING AND INVESTMENT, 1957 COMPARED WITH 1956
(Billions of dollars)

| Item | 1956 | 1957 | Change 1956 to 1957 |
|--|------------------|------------------|---------------------------|
| Gross Private Saving— | | | |
| Personal saving..... | 1.5 | 1.5 | — |
| Undistributed corporation profits..... | 1.0 | 0.8 | —0.2 |
| Depreciation allowances..... | 3.5 | 3.7 | +0.2 ¹ |
| Other..... | —0.1 | —0.1 | —0.2 |
| Government surplus..... | 0.4 | 0.1 | —0.3 |
| Residual error..... | — | 0.1 | — |
| Gross National Saving..... | 6.2 ¹ | 6.1 | —0.1 |
| Gross Capital Formation— | | | |
| Gross fixed capital formation..... | 6.8 | 7.4 | +0.6 |
| Change in inventories..... | 0.8 | 0.1 | —0.7 |
| Net foreign investment..... | —1.4 | —1.4 | — |
| Residual error..... | — | —0.1 | 0.1 |
| Gross National Investment..... | 6.2 | 6.1 ¹ | —0.1 ¹ |

¹ Not exact, because of rounding of figures.

SYMBOLS

The interpretation of the symbols used in the tables throughout this publication is as follows:—

. . figures not available.

... figures not appropriate or not applicable.

— nil or zero.

- - amount too small to be expressed or where "a trace" is meant.

^p preliminary figures.

^r revised figures.

CHAPTER I.—PHYSIOGRAPHY AND RELATED SCIENCES

CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found on the facing page.

PART I.—GEOGRAPHY*

Canada comprises the greater part of the northern half of North America and lies between the United States, Alaska and Greenland. In longitude Canada extends from Cape Spear, Newfoundland, at 52°37'W, to Mount St. Elias, Yukon Territory, at 141°W, a distance of 88°23'. In latitude it stretches from Middle Island, Lake Erie, at 41°41'N, to the North Pole. The northernmost point of land is Cape Columbia on Ellesmere Island, at 83°07'N. Thus Canada is essentially a western and a northern country, a fact of increasing strategic significance. Moreover the climatic, vegetal and soil belts are drawn out into broad east-west zones, thereby supporting the east-west orientation of the main frontier of the country and aiding Canada's historic east-west development.

The shape of Canada is like a distorted parallelogram with its four corners making important salients. In the north the salient formed by the Arctic Archipelago, which penetrates deep into the Arctic basin, guards the northern approaches to the continent from Europe and Asia and makes Canada neighbour to the Union of Soviet Socialist Republics. In the south the salient of peninsular Ontario thrusts far into the heart of the United States. In the east the salient of Labrador and the Island of Newfoundland commands the shortest crossings of the North Atlantic Ocean and links Canada geographically with the United Kingdom and France. In the west the broad arc of land between

* Prepared by the Geographical Branch, Department of Mines and Technical Surveys, Ottawa.

Vancouver in southern British Columbia and Whitehorse in Yukon Territory provides the shortest crossings of the North Pacific Ocean between continental North America and the Far East. Canada thus stands at the crossroads of contacts with the principal powers and some of the most populous areas of the world.

In size, Canada is the largest country in the Western Hemisphere and the second largest country in the world. Its area of 3,851,113 sq. miles may be compared with that of the Union of Soviet Socialist Republics, 8,649,821 sq. miles,* the United States of America (including Alaska), 3,608,790 sq. miles,* and Brazil, 3,287,204 sq. miles.* It is more than forty times the size of the United Kingdom and eighteen times that of France. The immense size of the country, while encompassing many resources and seeming to afford much scope for settlement, imposes its own burdens and limitations, particularly because much of the land is mountainous and rocky or is under an arctic climate. The developed portion is probably not more than one-third of the total; the occupied farm land is only 7.7 p.c. and the currently accessible productive forested land 18.1 p.c. of the total. The population of Canada, estimated at 16,589,000 on June 1, 1957, may be compared with 165,271,000† for the United States (1955) and with 58,456,000† for Brazil (1955).

1.—Approximate Land and Freshwater Areas by Province and Territory

NOTE.—A classification of land area as agricultural, forested, etc., is given at p. 18.

| Province or Territory | Land | Freshwater | Total | Percentage of Total Area |
|------------------------------------|------------------|----------------|------------------|--------------------------|
| | sq. miles | sq. miles | sq. miles | |
| Newfoundland (incl. Labrador)..... | 143,045 | 13,140 | 156,185 | 4.1 |
| Prince Edward Island..... | 2,184 | -- | 2,184 | 0.1 |
| Nova Scotia..... | 20,743 | 325 | 21,068 | 0.6 |
| New Brunswick..... | 27,473 | 512 | 27,985 | 0.7 |
| Quebec..... | 523,860 | 71,000 | 594,860 | 15.4 |
| Ontario..... | 333,835 | 78,747 | 412,582 | 10.7 |
| Manitoba..... | 211,775 | 39,255 | 251,030 | 6.5 |
| Saskatchewan..... | 220,182 | 31,518 | 251,700 | 6.5 |
| Alberta..... | 248,800 | 6,485 | 255,285 | 6.6 |
| British Columbia..... | 359,279 | 6,976 | 366,255 | 9.5 |
| Yukon Territory..... | 205,346 | 1,730 | 207,076 | 5.4 |
| Northwest Territories..... | 1,253,438 | 51,465 | 1,304,903 | 33.9 |
| Franklin..... | 541,753 | 7,500 | 549,253 | 14.3 |
| Keewatin..... | 218,460 | 9,700 | 228,160 | 5.9 |
| Mackenzie..... | 493,225 | 34,265 | 527,490 | 13.7 |
| Canada..... | 3,549,960 | 301,153 | 3,851,113 | 100.0 |

Section 1.—Physical Geography

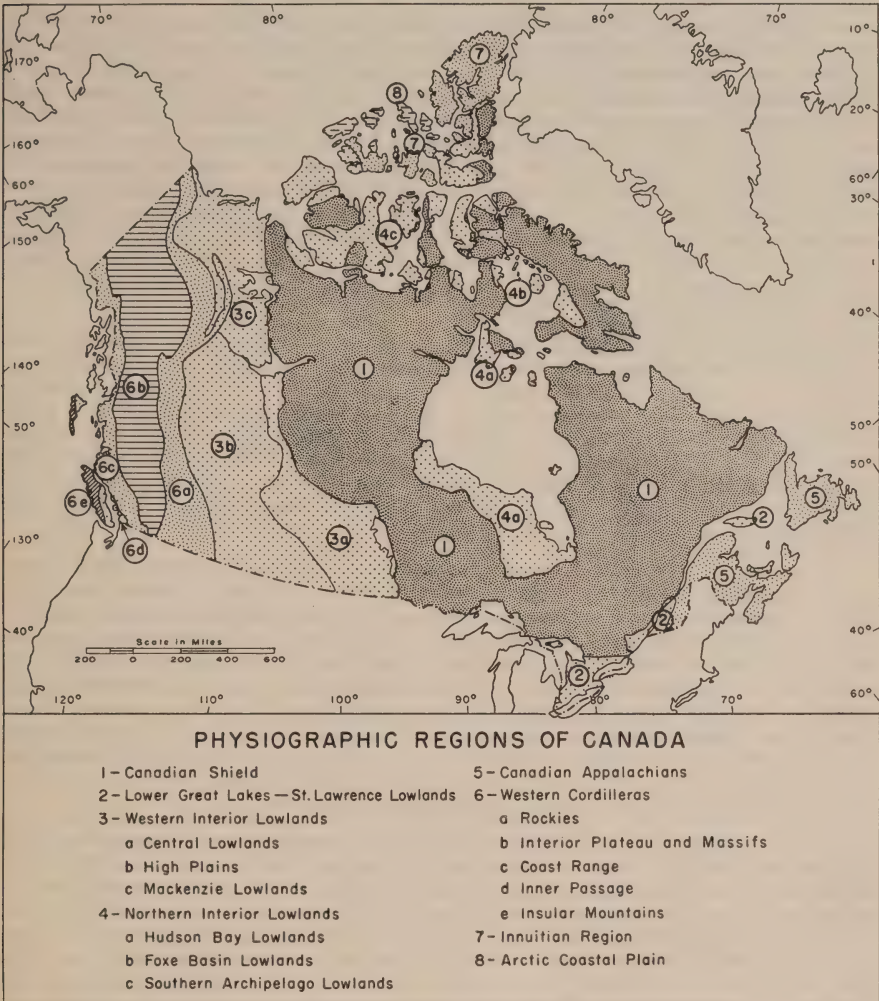
Subsection 1.—Physiographic Regions

Canada includes each of the major characteristic structures of the North American continent with the exception of the Atlantic coastal plain. Structure tends to dominate relief to a remarkable degree even though its effects have been modified by glacial and river erosion or deposition. Consequently, structural regions have become main physiographic divisions. Basically Canada consists of a central rocky upland, or shield, sloping down to flanking basins filled with sedimentary strata and rising again at the margins to mountains of folded rocks, interspersed with igneous intrusions.

* United Nations Statistical Yearbook 1956.

† United Nations Population and Vital Statistics Reports, January 1957.

Eight physiographic regions dominate the country: (1) The Canadian Shield; (2) the Lower Great Lakes-St. Lawrence Lowlands; (3) the Western Interior Lowlands of the Prairies and the Mackenzie basin; (4) the Northern Interior Lowlands of Hudson Bay and the southern Arctic Archipelago; (5) the Canadian Appalachians; (6) the Western Cordilleras; (7) the Arctic ranges, or Innuition; and (8) the Arctic Coastal Plain.



The Canadian Shield.—The Canadian Shield, covering an area of about 1,850,000 sq. miles, or nearly one-half the country, is the core of the continent. Broad in the north, between Davis Strait and the Mackenzie basin, it tapers towards its southern extremity in Minnesota. Its eastern edge is tilted up to present the Torngat Mountains of Labrador and the mountains of Baffin Island, with heights of over 5,000 feet. The southern and western sides form much lower uplands, of from 600 to 1,200 feet. They are broken by faults and

end in a zone of lake-filled basins including the Great Lakes, Winnipeg, Athabasca, Great Slave and Great Bear Lakes. The north consists of a series of low prongs, like the Melville and Boothia peninsulas, flanked by channels and islands. The centre of the Shield has been depressed and is occupied by Hudson Bay and its arms and outlets. The whole makes up a knobby, rocky plateau with old worn-down mountains above and enclosed plains beneath its general level.

The rocks of the Shield comprise two series, the Archæan and Proterozoic, including very ancient sedimentaries, together with igneous intrusions and metamorphic belts. The Archæan rocks are dominantly crystalline in the form of massive domes of from 1,200 to 1,400 feet high; they also embrace small sedimentary depressions. The Proterozoic rocks are mainly sedimentary and often lie in wide, shallow basins, 600 feet or more below the surrounding uplands. The more important of these are the Coppermine, Thelon, Athabasca and Dubawnt plains in the northwest, the Port Arthur lowland in the southwest, and the Mistassini plain and Ungava trough in the east. The Proterozoics were frequently squeezed up into ranges of fold mountains such as the Bear and Snare Mountains south of Great Bear Lake, the Slave and Nonacho Mountains south of Great Slave Lake, the Athabasca and Tazin Mountains east of Lake Athabasca, the Cuyuna and Penokean Mountains to the north and south of Lake Superior, the La Cloche Mountains north of Lake Huron and the Ungava Mountains in central Labrador.

The Shield may be subdivided on the basis of changes in the trend of rocks from place to place. In the south there lies the Grenville province with an over-all trend from southwest to northeast. North of a line through Lake Nipissing and Lake Mistassini occurs the Superior province with a west-east trend. It extends north from Lake Superior to about the Nelson River west of Hudson Bay and Great Whale River east of the Bay. The Ungava province occupies the northeast, with a west-southwest to east-northeast trend. Its counterpart is the Churchill province between Lake Winnipeg and the Dubawnt plain, having a southwest to northeast trend. In the far northwest is the Slave province where the rocks trend from south-southwest to north-northeast.

The whole of the Shield has been glaciated. Current opinion favours Baffin Island and the high eastern rim of the Shield as the main source of ice; the ice sheets spread out, however, far to the west and south, pushing across to the Rockies practically to the confluence of the Mississippi and Ohio Rivers and to Long Island. The ice deepened pre-existing valleys, scooped out some of the softer plains, wore down ridges and spread quantities of debris. As it melted away it created huge frontal lakes such as the predecessors of the Great Lakes, of the western lakes, and of the various 'clay belts' that now occupy hollows in the Shield. These lakes left behind extremely valuable lacustrine clays and beach gravels that have given the Shield the few agricultural areas it possesses. Post-glacial rivers, too, have benefited from the ice-cut or ice-ponded lakes, obtaining a large volume and a steady flow that make them ideal for hydro-electric development.

Shield structures the world over are peculiarly favourable to metal formation. Thus the Canadian Shield is Canada's principal source of iron, gold, nickel and radioactive metals and has also important supplies of copper, lead and zinc. Recent strides made in the exploitation of these mineral deposits as well as in the development of the vast forest and water power resources of the area have attracted settlement as never before. The new communities afford important markets for the agricultural produce of the western provinces and the manufactured goods of Ontario and Quebec, and thus the resources of the Shield constitute a factor in cementing together the eastern and western portions of the country. In the north, however, climatic conditions and inaccessibility have prevented extensive colonization.

The Lower Great Lakes-St. Lawrence Lowlands.—Flanking the Shield to the south and southeast the Lowlands consist of gently dipping or almost flat strata of Palæozoic sediments. Laid down in epi-continental seas in beds of mud (shale), sand and limestone, these strata produced a belted lowland with distinctive though subdued relief. The belts

of shale form low vales and the belts of limestone stand up as prominent scarps, the most famous of which is the Niagara Escarpment. The whole region was greatly modified by ice and, as the ice melted, depressions became lakes. The glacial lakes were much larger than those of today. Glacial Lake Algonquin covered the three upper Great Lakes together with Lakes Nipigon and Nipissing and flowed out to sea by the Mattawa-Ottawa and the Trent river valleys. When it receded it left behind important plains at Port Arthur, Nipigon and North Bay. Lake Erie developed from a succession of glacial lakes at different levels and consequently is surrounded by a number of sandy deltaic deposits, beach ridges and lacustrine flats, each of which has its own role in diversifying agriculture. Lake Ontario is the successor to Lake Iroquois and is surrounded by the old Iroquois beach which stands out everywhere and provides sites for roads and settlements. Farther east, the lower Ottawa and St. Lawrence valleys were invaded first by glacial Lake Champlain and then by the Champlain Sea. Here also, deltaic sands, beach gravels and lake-bottom clays play a pronounced part in agriculture and in the distribution of settlement. The ice left large terminal or inter-lobate moraines, the most significant of which are the Horseshoe moraine in southwest Ontario and the Oak Ridge moraine in central Ontario. These provide catchment basins for many small rivers.

The Lowlands may be divided into four sub-regions: Southwest Ontario, west of the Niagara Escarpment; Central Ontario, between the Escarpment and the Rideau Hills [these are a spur of the Shield (the Frontenac axis) between the Algonquins and the Adirondacks]; Eastern Ontario and the Montreal Plain; and the estuarine plains of Quebec and Anticosti Island.

The Lowlands are poorly endowed with fuel and other mineral resources, except for the natural gas fields and the salt deposits of southwest Ontario. However, the area is the most southerly part of Canada, has a very favourable climate and good grey-brown soils, and is therefore very productive. The immense water power potential of the Niagara and St. Lawrence Rivers and of the rivers plunging down from the Shield and the Appalachians is a major asset. Although the Lowlands comprise Canada's smallest region, they support nearly two-thirds of the country's population.

The Western Interior (Prairies and Mackenzie) Lowlands.—The largest plains in Canada, the Western Interior Lowlands occupy a truly continental depression between the Shield and the Rocky Mountains, long the site of shallow seas that expanded and contracted from Palaeozoic to Cenozoic times. Sedimentary rocks laid down by rivers and by these seas in almost horizontal strata dominate the scene. They have since been attacked by differential erosion, the softer beds being worked down into basins and the harder beds standing up as intervening scarps.

The prairies have thus come to occupy three levels or steps. The lowest consists of the Manitoba plain, of Palaeozoic rocks, dipping gently away from the Shield. This step is at an elevation of from 600 to 900 feet. Much of it is floored by fertile glacial clays and beach ridges left by glacial Lake Agassiz that once filled the Red and Assiniboine Rivers and the flats around Lakes Winnipeg, Manitoba and Winnepegosis. It gives way, westward, to the great Cretaceous escarpment known as the Manitoba Scarp. This scarp has been cut into deeply by the Assiniboine, Swan and Saskatchewan Rivers and really exists as a series of uplands of from 1,600 to 2,600 feet high called the Turtle, Riding, Duck, Porcupine and Pasquia Mountains.

The second prairie step stretches westward from this scarp at a mean altitude of 2,000 feet. It too was glaciated. When the ice retreated large glacial lakes were left, known as Lakes Souris, Regina and Saskatoon. Lake-bed deposits today form some of the flattest and most fertile areas. Elsewhere the ground is rather hummocky with innumerable sloughs. Another great scarp occurs west of Weyburn and Moose Jaw; it is a continuation of the Missouri Coteau, a well-marked feature in the United States, and is divided by great re-entrants into individual sectors, the most important of which are Wood and Bear Mountains.

West of the Coteau extends the third and highest prairie step with an altitude of between 3,000 and 4,300 feet. In the south it is quite hilly, where the Cypress Hills rise above it to shed waters into the Saskatchewan or Missouri basins. Covered with till, it has generally a slightly rolling surface suited particularly to ranching. Old glacial lakes along the Bow and Oldman Rivers provide excellent agricultural areas, as do outwash plains in front of the moraines that occur between Calgary and Edmonton.

The three prairie steps are united by the great arms of the Saskatchewan River flowing from the Rockies to Lake Winnipeg, and also by the soil zones which form broad west-east arcs. Railways, roads and crop belts accentuate these natural ties. So do the coal, oil and gas fields. The prairies are underlain by Canada's chief fuel-bearing rocks. From Estevan through Drumheller to Macleod are a succession of coal fields. Southwest Manitoba and south Saskatchewan lie on the edge of the Williston oil basin. Western Alberta is the site of another large oil field. Gas is important in southern Alberta and in the Peace River district of the northwest.

A low divide of moraine-capped hills separates the prairies from the Mackenzie Lowland. This huge area, 1,100 miles long and up to 300 miles wide, consists of an asymmetrical plain, tilted from plateau-like levels in the west, at 4,000 feet, to basin-like stretches in the east, at 500 feet. The main channel follows the eastern depression. Long, rapid, deeply entrenched tributaries, such as the Athabasca, Peace, Liard, Arctic Red and Peel Rivers, come in from the west. Where the Lowland meets the Shield, a few pronounced hollows occur filled with great lakes. These were much larger during glacial times and consequently glacial-lake beds are exposed all around Lesser Slave, Athabasca, Great Slave and Great Bear Lakes; the more southerly of these areas provide reasonably good agricultural or forest lands. The Athabasca and Peace Rivers, emptying into glacial Lake Athabasca, formed extensive sand deltas; an even larger delta of this type is the one formed by the Slave River at Great Slave Lake. The Mackenzie delta is one of the largest on the continent.

Though the southern part of the Lowland, particularly in the Peace River district, forms good agricultural land, the northern part is climatically unsuited to commercial farming. The lead and zinc deposits at Pine Point and the oil field at Norman Wells, together with oil potential in the middle Mackenzie and Peel basins, are valuable northern assets.

The Northern Interior (Hudson Bay and Inner Arctic) Lowlands.—Palæozoic sedimentaries, they dip gently north from the main height of land between the Hudson Bay and Great Lakes drainage basins. They are thus a parallel structure to that of the St. Lawrence Lowlands, but there the likeness ends. In the past, marine transgression buried the northern Palæozoics, masking the effects of the underlying rocks. Much of the land, then, consists of great stretches of old marine beds sloping down from one raised beach to the other. Through these thrust occasional masses of drumlins and periodic outcrops of rock. Moreover, the climate is arctic and therefore vegetation is limited to grass, moss and lichen, and soil development is inhibited. Thus these northern plains are of little economic value except for some hunting and trapping.

The plains may be divided into four sub-regions: the coast plain of Hudson Bay, between Churchill and Moosonee; the southern part of Southampton Island, and Coats and Mansel Islands; most of the islands and parts of the coast of Foxe Basin; and parts of the southern Arctic Archipelago, including northwest Baffin, Somerset, Prince of Wales, eastern Victoria and eastern Banks Islands.

The Canadian Appalachians.—The Canadian Appalachians are a part of the great range of fold mountains extending from Newfoundland through the Maritimes and southeast Quebec to Tennessee and beyond the Mississippi to Arkansas. They were thrown up chiefly in Silurian, Devonian and Carboniferous times, thus involving Palæozoic strata. In those times, two long geosynclines ran through the region—the Laurentian and the Acadian. The former extended from northwest Newfoundland through the Gaspé Peninsula and southeast Quebec, and gave birth to the Long Range of Newfoundland and the Shickshock

and Notre Dame Mountains of Quebec. The Acadian geosyncline reached from southeast Newfoundland through Nova Scotia and eastern New Brunswick and was responsible for the uplands of those regions.

Between the mountain ranges are wide basins floored by sandstone, notably those of Prince Edward Island, Minas basin, and the Annapolis and St. John Valleys. The whole complex mass of mountains was planed down by prolonged erosion so that elevation is moderate, not more than 4,200 feet, and outlines are long and smooth with few sharp crests. The name of the highest area, Tabletop Mountain in the Shickshocks, is indicative of the subdued topography. Subsequently the region was glaciated and small glacial lakes, valley moraines and outwash fans play a significant role in scenery and occupation. Raised beaches to a height of 250 feet line many stretches of coast and are marked by roads and settlements. The rivers have been strongly rejuvenated and are lined with terraces particularly valuable for cultivation. Intrusions of granite and trap are frequent. The trap sill forming North Mountain in Nova Scotia encloses the famous Annapolis Valley.

Many of the igneous intrusions are associated with metals, as at Bathurst in New Brunswick where large deposits of lead and zinc are found. At one time gold was mined about the intrusions in Nova Scotia. A large deposit of iron at Wabana and deposits of lead and zinc at Buchans, Newfoundland, are important. On the edge of the region, in the Eastern Townships of Quebec, is the world's largest supply of asbestos and significant deposits of coal occur in Cape Breton Island, Nova Scotia, and on the coasts of Northumberland Sound in New Brunswick. Thus, though the fertile plains of the sheltered basins included in the fold belts have long made the region predominantly agricultural, the mineral resources are the basis for limited but thriving industries. Lumbering on forested hills and fishing in the bays of a much-indented coast are also important activities of the region.

The Western Cordilleras.—The Western Cordilleras consist of a belt of lofty ranges, deep troughs and broad plateaux extending for 1,400 miles through the Yukon Territory and British Columbia and having a width of up to 500 miles. The Cordilleras are characterized by intensive folding, elevation and faulting, the intrusion of enormous batholiths—igneous masses that warped-up overlying sedimentaries—and by volcanic activity. They are made up, therefore, of folded sedimentaries, igneous masses and metamorphic rocks. Although older rocks are exposed, Mesozoic and Cenozoic rocks predominate. In Precambrian times the geosynclines formed in which the Yukon group of sediments in Yukon Territory and the Shuswap group in British Columbia were laid down. Later vast depressions occurred where sediments gathered that are now folded into the Purcells and southern Rockies. The accumulation of great depths of sediment, 20,000 feet or more thick, continued through Palæozoic into Mesozoic times. Then in Jurassic times violent volcanism, folding and the intrusion of granites occurred in the outer belts, throwing up the Coast and Selkirk Ranges. The Rocky Mountain system came into being during Cretaceous and Tertiary times.

The whole region was partly planed down and there is a frequent accordance of summit levels. However, subsequent uplift led to a renewed attack on the land by river and sea, and deeply entrenched rivers fringed by pronounced terraces are common. Glaciation has further deepened the valleys and eaten into the divides, leading to knife-like ridges and horn-shaped peaks. Eventual drowning of the coastal fringe made islands of outlying ridges and deep fjords of coastal troughs, producing a highly articulated shore line.

The Cordilleras may be divided into five structures—the Rocky Mountain system, the interior basins and plateaux, the Coast Range, the Inner Passage along the coast, and the outer insular arc.

The Rocky Mountain system begins, in Canada, with the Richardson Range of moderate elevation, heavily glaciated and then dissected by rivers on its flanks but with no marked peaks. Southwards is the Peel Plateau of flat sedimentary rocks, eaten into isolated tablelands by river action. Farther south occur the Mackenzie Mountains, with more intensively folded ridges and ice-serrated peaks rising to 9,000 feet. These are separated

from the Rockies proper by the pronounced gap of the Liard River. The Rockies are composed partly of highly folded beds and partly of nearly flat beds that have been uplifted to great heights. They are split by faults and have been attacked by rivers so successfully as to give way to low passes such as Finlay Forks, Pine, Yellowhead, Kicking Horse and Crowsnest. Three clusters of peaks occur, dominated by Churchill Peak (10,500 feet) in the north, Mount Robson (12,972 feet) in the centre and Mount Assiniboine (11,870 feet) in the south.

The interior basins and plateaux are considerably lower than the Rocky or Coast Ranges. On the east they begin at a well-marked break called, in part of its course, the Rocky Mountain Trench. This carries the headwaters of the Liard, Peace, Fraser and Columbia Rivers. The Yukon Plateau in the north, lying between Dawson and Selwyn Ranges, has flat summits separated by deeply cut rivers. Southward it passes to the Cassiar Mountains, strongly intruded with igneous masses. Thence the Stikine Plateau runs as far as the Skeena-Hazelton Ranges, which are again largely of intruded igneous rock. South of these is the Interior Upland of British Columbia, a wide area of flat-topped uplands from 3,000 to 4,000 feet high with deep, many-terraced rivers flowing between. The gorge of the Fraser River is one of the most spectacular in Canada. The river basins afford considerable fertile land for cultivation and the plateau tops provide excellent pasture. Toward the United States border are the Columbia Mountains, a complex system of folded and intruded rocks and fault-line depressions rich in minerals and with productive river and lake terraces.

The Coast Range has the highest peaks in Canada—Mount Logan (19,850 feet) in the Yukon Territory and Mount Waddington (13,260 feet) in British Columbia. The Canadian portion starts in the high, partly volcanic, partly folded mass of peaks known as the St. Elias Range. Here active glaciers have cut deep troughs and sharp ridges. South, the Coast Range has some large batholiths. The crystalline rocks have frequently become exposed by the very active erosion caused by heavy precipitation from oceanic airs. Consequently most of the Coast Range, despite its massive structure, consists of a saw-like series of sharp peaks and ridges.

The Inner Passage along the coast comprises the Georgia, Queen Charlotte and Hecate Straits. It is a continuation northward of the string of great depressions occurring in the United States, such as the Sacramento and Willamette Valleys, but it became drowned by the sea and there is little plain left. The mainland and island coasts rise very steeply to lofty mountains. The Passage has a very large number of arms, most of which are ice-cut fjords or fault depressions giving a highly indented shore. The outer insular arc is made up of outlying ridges that have become partially submerged under the sea, forming a number of hilly or mountainous islands enclosing small fertile basins. The Queen Charlotte group in the north and Vancouver Island in the south are the most important.

The Western Cordilleras are very complex in structure and consequently have a wide range of resources. In some of the narrow plains, sedimentary rocks are underlain by coal fields as at Fernie and Nanaimo in British Columbia and at Carmacks in the Yukon Territory. Oil is purported to lie under plateau sections in the Yukon. Gold made the Cariboo district of British Columbia and the Klondike area of Yukon Territory world-famous in their time but of greater importance are the large mineral masses usually associated with igneous intrusions, of which copper, lead and zinc are the most significant. To this wealth of metals, the Cordilleras add vast hydro-electric potential and dense, extensive coniferous forests. Agriculture is limited except on the Fraser delta and in one or two of the interior trenches.

The Innuitian Region and the Arctic Coastal Plain.—The Innuitian Region is an extensive belt of fold mountains 800 miles long, involving rocks from Silurian to Cretaceous times. Folding started in Appalachian times in Silurian and Devonian beds. It overlapped that of the Cordilleras in Cretaceous and Cenozoic beds. Two sub-regions exist—the Ellesmere Island system and the Parry Islands folded belt. The Ellesmere Island system seems to indicate a double orogeny, in Silurian and then again in Cretaceous times.

The results have been fairly high ranges of from 6,000 to 10,000 feet where folding and thrust faulting are much in evidence. The trends of the folds are from southwest to northeast. The Parry Islands fold belt, trending more nearly west-east, consists of typical Appalachian-like folds in canoe-shaped structures about 2,000 feet high which include large tracts of horizontal strata.

Farther north, in the Sverdrup Islands and in those discovered by Stefansson, the strata form a coastal plain gently sloping towards the Arctic Ocean. The beds are much disturbed locally by piercement domes which are frequently the sites of the accumulation of pools of oil. However, geological discovery has not yet proceeded to the extent of determining the mineral wealth of the area. The climate is so severe that it precludes any possibility of agricultural development and has limited even hunting and fishing activities.

Subsection 2.—Inland Waters

The inland waters of Canada (not including salt water areas that are a part of Canada) are extensive, constituting over 7 p.c. of the total area of the country. They are best studied by segregating the main drainage basins as shown in Table 2.

2.—Drainage Basins

| Drainage Basin | Area Drained ¹ | Drainage Basin | Area Drained ¹ |
|-------------------------------|------------------------------|--------------------------------------|------------------------------|
| | sq. miles | | sq. miles |
| Atlantic Basin | 695,370 | Arctic Basin (mainland) | 944,280 |
| Ontario..... | 116,000 | Saskatchewan..... | 46,650 |
| Quebec..... | 372,780 | Alberta..... | 158,110 |
| Newfoundland..... | 155,360 | British Columbia..... | 105,020 |
| New Brunswick..... | 27,980 | Yukon..... | 53,970 |
| Nova Scotia..... | 21,070 | Northwest Territories..... | 580,530 |
| Prince Edward Island..... | 2,180 | | |
| Hudson Bay Basin | 1,160,420 | Pacific Basin | 387,210 |
| Quebec..... | 199,230 | British Columbia..... | 251,990 |
| Ontario..... | 259,810 | Yukon..... | 135,220 |
| Manitoba..... | 243,780 | | |
| Saskatchewan..... | 189,620 | Gulf of Mexico Basin | 8,600 |
| Alberta..... | 86,530 | Alberta..... | 2,540 |
| Northwest Territories..... | 181,450 | Saskatchewan..... | 6,060 |

¹ Areas are approximate and are exclusive of those portions of the basins of all rivers that lie in United States territory, and of areas of interior drainage.

During the early period of exploration and development the waterways of Canada were the sole means of access to and travel in the interior. This function is still of importance to much of the country, particularly in the north where most traffic moves by water or by air. In the settled areas, however, the construction of roads and railways has reduced the role of the waterways as transportation routes but they have assumed other functions. Some, particularly in the Canadian Shield area and the Cordilleran region, have been harnessed for the production of electric power. Others, mainly in southern Alberta and Saskatchewan, have been dammed to provide water for irrigation purposes. In Eastern Canada many of the rivers have been controlled in an over-all program of flood prevention and conservation of renewable resources or to provide dependable supplies of water for industrial and domestic purposes.

In Eastern Canada, the Great Lakes and St. Lawrence drainage basin dominates all others and forms an unequalled system of navigable inland waterways through a region rich in natural and industrial resources. From Duluth, Minn., at the head of Lake Superior

to Belle Isle at the entrance to the Gulf of St. Lawrence the distance is 2,280 miles. The St. Lawrence waterway and its tributaries, most of which have lakes available for reservoiring, have very large developed and potential power resources.

The greater part of Canada drains into Hudson Bay and the Arctic Ocean; the Nelson River drainage is exceptional in running *through* the most arable and the most settled part of Western Canada but otherwise the rivers of the West, east of the Rockies, run *away* from the settled areas towards the cold northern salt waters and this adversely affects their industrial utility. The Mackenzie River, which drains Great Slave Lake, is, with its headwaters, the longest river in Canada (2,635 miles) and its valley constitutes the natural transportation route through the Northwest Territories to the Arctic Ocean. From Fort Smith on the Slave River large river boats run without any obstruction to Aklavik on the delta of the Mackenzie, a distance of 1,292 miles. Table 3 gives the lengths of the principal rivers with their tributaries classified according to the four major drainage basins.

3.—Lengths of Principal Rivers and Their Tributaries.

NOTE.—In this table the tributaries and sub-tributaries are indicated by indention of the names. Thus the Ottawa and other rivers are shown as tributary to the St. Lawrence, and the Gatineau and other rivers as tributary to the Ottawa.

| Drainage Basin and River | Length | Drainage Basin and River | Length |
|--|--------|---|--------|
| | miles | | miles |
| Flowing into the Atlantic Ocean | | Flowing into Hudson Bay | |
| St. Lawrence (to head of St. Louis, Minn.) | 1,900 | Nelson (to head of Bow) | 1,600 |
| Ottawa | 696 | Saskatchewan (to head of Bow) | 1,205 |
| Gatineau | 240 | South Saskatchewan | 865 |
| du Lièvre | 205 | Red Deer | 385 |
| Coulonge | 135 | Bow | 315 |
| Madawaska | 130 | Belly | 180 |
| Rouge | 115 | North Saskatchewan | 760 |
| Mississippi | 105 | Red (to head of Sheyenne) | 545 |
| Petawawa | 95 | Assiniboine | 590 |
| South Nation | 90 | Souris | 450 |
| Dumoine | 80 | Qu'Appelle | 270 |
| North | 70 | Winnipeg (to head of Firesteel) | 475 |
| North Nation | 60 | English | 330 |
| Saguenay (to head of Peribonca) | 475 | Churchill | 1,000 |
| Peribonca | 280 | Beaver | 305 |
| Mistassini | 185 | Koksoak (to head of Kaniapiskau) | 660 |
| Ashuapmucuan | 165 | Kaniapiskau | 575 |
| St. Maurice | 325 | Severn (to head of Black Birch) | 610 |
| Mattawin | 100 | Albany (to head of Cat) | 610 |
| Manicouagan (to head of Racine-de-Bouleau) | 310 | Dubawnt | 580 |
| Outardes | 270 | Eastmain | 510 |
| Bersimis | 240 | Fort George (to Nicheicun Lake) | 480 |
| Richelieu | 210 | Attawapiskat | 465 |
| St. Francis | 165 | Kazan | 455 |
| Chaudière | 120 | Nottaway (to head of Waswanipi) | 400 |
| Via the Great Lakes | | Waswanipi | 190 |
| French (to head of Sturgeon) | 180 | Nelson (to head of Lake Winnipeg) | 400 |
| Sturgeon | 110 | Rupert | 380 |
| Grand | 165 | Red (to head of Lake Traverse) | 355 |
| Thames | 163 | George (to Hubbard Lake) | 345 |
| Spanish | 153 | Moose (to head of Mattagami) | 340 |
| Trent | 150 | Abitibi | 340 |
| Mississagi | 140 | Mattagami | 275 |
| Nipigon (to head of Ombabika) | 130 | Missinabi | 265 |
| Moir | 60 | Hayes | 300 |
| Thessalon | 40 | Winisk | 295 |
| St. John | 418 | Whale | 270 |
| Romaine | 270 | Harrieanaw | 250 |
| Natashquan | 241 | Great Whale | 230 |
| Moisie | 210 | Leaf | 165 |
| Hamilton | 208 | | |
| Exploits | 153 | | |
| Naskaupi | 152 | | |
| Canairiktok | 139 | | |
| Eagle | 138 | | |
| Miramichi | 135 | | |
| Marguerite | 130 | | |
| Gander | 102 | | |
| | | Flowing into the Pacific Ocean | |
| | | Yukon (mouth to head of Nisutlin) | 1,979 |
| | | Yukon (Int. Boundary to head of Nisutlin) | 714 |
| | | Poreupine | 590 |
| | | Lewes | 338 |

3.—Lengths of Principal Rivers and Their Tributaries—concluded

| Drainage Basin and River | Length | Drainage Basin and River | Length |
|---|--------|--------------------------------------|--------|
| | miles | | miles |
| Flowing into the Pacific Ocean—concluded | | Flowing into the Arctic Ocean | |
| Yukon—concluded | | Mackenzie (to head of Finlay)..... | 2,635 |
| Pelly..... | 330 | Peace (to head of Finlay)..... | 1,195 |
| Stewart..... | 320 | Finlay..... | 250 |
| Macmillan..... | 200 | Smoky..... | 245 |
| White..... | 185 | Little Smoky..... | 185 |
| Columbia (total)..... | 1,150 | Parsnip..... | 145 |
| Columbia (in Canada)..... | 459 | Athabasca..... | 765 |
| Kootenay (total)..... | 407 | Pembina..... | 210 |
| Kootenay (in Canada)..... | 276 | Liard..... | 755 |
| Fraser..... | 850 | South Nahanni..... | 350 |
| Thompson (to head of North Thompson).... | 304 | Petitot..... | 295 |
| North Thompson..... | 210 | Fort Nelson..... | 260 |
| South Thompson (to head of Shuswap).... | 206 | Hay..... | 530 |
| Nechako..... | 287 | Peel (to head of Ogilvie)..... | 425 |
| Stuart (to head of Driftwood)..... | 258 | Arctic Red..... | 310 |
| Chileotin..... | 146 | Slave..... | 258 |
| West Road (Blackwater)..... | 141 | Twitya..... | 200 |
| Skeena..... | 360 | Back..... | 605 |
| Bulkley (to head of Maxam Creek)..... | 160 | Coppermine..... | 525 |
| Stikine..... | 335 | Anderson..... | 430 |
| Aisek..... | 260 | Horton..... | 275 |
| Nass..... | 236 | | |

The outstanding lakes of Canada are the Great Lakes, though only parts of these are in Canadian territory. The International Boundary between Canada and the United States passes through Lakes Superior, Huron, St. Clair, Erie and Ontario. Details are given in Table 4.

4.—Elevations, Areas and Depths of the Great Lakes

| Lake | Elevation Above Sea-level | Length | Breadth | Maximum Depth | Total Area | Area on Canadian Side of Boundary |
|------------------------|---------------------------------|--------|---------|------------------|---------------|--|
| | ft. | miles | miles | ft. | sq. miles | sq. miles |
| Superior..... | 602.23 | 383 | 160 | 1,302 | 31,820 | 11,200 |
| Michigan (U.S.A.)..... | 580.77 | 321 | 118 | 923 | 22,400 | — |
| Huron..... | 580.77 | 247 | 101 | 750 | 23,010 | 13,675 |
| St. Clair..... | 575.30 | 26 | 24 | 23 | 460 | 270 |
| Erie..... | 572.40 | 241 | 57 | 210 | 9,940 | 5,094 |
| Ontario..... | 245.88 | 193 | 53 | 774 | 7,540 | 3,727 |

There are no tides in the Great Lakes although considerable variation in water levels is occasioned by strong winds.

Other large lakes of Canada, ranging in area from 9,000 to 12,000 sq. miles, are Lake Winnipeg, Great Slave Lake and Great Bear Lake. Apart from these, notable for size, are innumerable lakes scattered over that major portion of Canada lying within the Canadian Shield. In an area of 6,094 sq. miles, accurately mapped, south and east of Lake Winnipeg, there are 3,000 lakes. In an area of 5,294 sq. miles, accurately mapped, southwest of Reindeer Lake in Saskatchewan, there are 7,500 lakes.

5.—Elevations and Areas of Principal Lakes by Province

NOTE.—Areas given are for mean water levels. For those reservoirs and lakes for which two elevations are given, HW means high water, LW low water, and N normal level.

| Province and Lake | Elevation ft. | Area sq. miles | Province and Lake | Elevation ft. | Area sq. miles |
|---|----------------------|-------------------|---|----------------------|-------------------|
| Newfoundland— | | | Ontario—concluded | | |
| Deer..... | 12 | 24 | Minnitaki..... | 1,177 | 72 |
| Gander..... | 86 | 49 | Nipigon..... | 852 | 1,870 |
| Grand..... | 270 | 140 | Nipissing..... | 643 | 330 |
| Melville..... | sea-level | 1,133 | Ontario (total, 7,540) part..... | 246 | 3,727 |
| Michikamau..... | 1,650 | 566 | Rainy (total, 345) part (reservoir)..... | HW 1,108 LW 1,103 | 275 |
| Red Indian..... | 500 | 65 | Red..... | 1,157 | 69 |
| Victoria..... | 700 | 15 | St. Clair (total, 460) part..... | 575 | 270 |
| Nova Scotia— | | | St. Francis, River St. Lawrence (total, 83) part..... | LW 151 N 153 | 20 |
| Bras d'Or..... | tidal | 360 | St. Joseph..... | 1,219 | 187 |
| New Brunswick— | | | Sandy..... | 1,190 | 270 |
| Grand..... | tidal | 65 | Seul (reservoir)..... | HW 1,172 LW 1,156 | 530 |
| Quebec— | | | Simcoe..... | 718 | 280 |
| Abitibi (total, 350) part..... | 868 | 55 | Stout, Berens River..... | 1,039 | 50 |
| Albanel..... | 1,289 | 145 | Sturgeon, English River..... | 1,342 | 110 |
| Baskatong (reservoir)..... | HW 732 LW 677 | 109 | Superior (total, 31,820) part..... | 602 | 11,200 |
| Bienville..... | 392 | | Timagami..... | 962 | 90 |
| Burnt (Brûlé)..... | 1,203 | 56 | Timiskaming (total, 110) part..... | HW 593 N 584 | 55 |
| Cabonga (reservoir) (Kakabonga)..... | HW 1,185 LW 1,169 | 66 | Trout, English River..... | 1,294 | 156 |
| Champlain (total, 360) part..... | 95 | 18 | Trout, Severn River..... | 215 | |
| Chibougamau..... | 1,253 | 138 | Woods, Lake of the (total, 1,485) part (reservoir)..... | HW 1,062 LW 1,056 | 953 |
| Clearwater..... | 790 | 410 | | | |
| d'Iberville..... | 260 | | Manitoba— | | |
| Evans..... | 612 | 180 | Athapapuskow..... | 951 | 104 |
| Goeland..... | 660 | 125 | Atikameg..... | 855 | 112 |
| Indian House..... | 125 | | Beaverhill..... | 651 | 70 |
| Kaniapiskau..... | 1,850 | 210 | Cedar..... | 829 | 537 |
| Kempt..... | 1,372 | 63 | Cormorant..... | 840 | 134 |
| Kipawa..... | 884 | 95 | Cross Nelson River..... | 679 | 274 |
| Lower Seal..... | 860 | 130 | Dauphin..... | 853 | 200 |
| Manicouagan..... | 110 | | Dog..... | 815 | 64 |
| Manuan..... | 1,340 | 100 | Etawnei..... | 28 | |
| Maricourt..... | 110 | | Gods..... | 585 | 319 |
| Mattagami..... | 615 | 88 | Goose..... | 935 | 53 |
| Minto..... | 485 | | Granville..... | 850 | 181 |
| Mistassini..... | 1,243 | 840 | Island..... | 744 | 550 |
| Nichikun..... | 1,760 | 150 | Kamuchawie (total, 56) part..... | 1,153 | 30 |
| Olga..... | 635 | 50 | Kipahigan (total, 59) part..... | 963 | 29 |
| Payne..... | 230 | | Kiskitto..... | 696 | 65 |
| Pipmakan..... | 90 | | Kiskittogisu..... | 709 | 99 |
| Pletipi..... | 138 | | Kississing..... | 920 | 141 |
| Quinze, des..... | HW 867 N 857 | 55 | Manitoba..... | 813 | 1,817 |
| St. Francis, River St. Lawrence (total, 83) part..... | LW 151 N 153 | 63 | Molson..... | 154 | |
| St. John..... | 321 | 375 | Moose..... | 838 | 525 |
| St. Louis..... | LW 65 N 67 | 57 | Nomeau (total, 79) part..... | 873 | 8 |
| St. Peter..... | LW 11 | 130 | Northern Indian..... | 725 | 150 |
| Simard..... | 856 | 59 | Nuelin (total, 336) part..... | 76 | |
| Timiskaming (total, 110) part..... | HW 593 N 584 | 55 | Oxford..... | 612 | 155 |
| Two Mountains..... | 72 | 63 | Paint..... | 615 | 54 |
| Waswanipi..... | 680 | 75 | Pelican, west of Lake Winnipegosis..... | 837 | 80 |
| Ontario— | | | Playgreen..... | 711 | 257 |
| Abitibi (total, 350) part..... | 868 | 295 | Red Deer, west of Lake Winnipegosis..... | 862 | 86 |
| Dog..... | 1,378 | 61 | Reed..... | 911 | 78 |
| Eagle..... | 1,192 | 137 | Reindeer (total, 2,444) part..... | 1,150 | 386 |
| Erie (total, 9,940) part..... | 572 | 5,094 | St. Martin..... | 798 | 125 |
| Huron, including Georgian Bay (total, 23,010) part..... | 581 | 13,675 | Settling..... | 737 | 49 |
| Kesagami..... | 90 | | Sipiwek..... | 598 | 201 |
| La Croix (total, 55) part..... | 1,181 | 25 | Sisipuk (total, 99) part..... | 915 | 73 |
| Long..... | 1,025 | 75 | Southern Indian..... | 835 | 1,060 |
| Manitou, Kenora..... | 1,215 | 60 | Stevenson..... | 75 | |
| Mille Lacs, Lac des..... | 1,491 | 102 | Swan..... | 849 | 100 |
| | | | Talbot..... | 845 | 72 |
| | | | Todatara (total, 241) part..... | 156 | |
| | | | Walker..... | 1,121 | 62 |
| | | | Waterhen..... | 829 | 90 |

5.—Elevations and Areas of Principal Lakes by Province—concluded

| Province and Lake | Elevation | Area | Province and Lake | Elevation | Area |
|--|----------------------|------------------|---|-----------|-----------|
| | ft. | sq. miles | | ft. | sq. miles |
| Manitoba—concluded | | | British Columbia—concluded | | |
| Wekusko..... | 840 | 64 | Babine..... | 2,330 | 194 |
| Winnipeg..... | 713 | 9,094 | Chilko..... | 3,842 | 75 |
| Winnipegosis..... | 831 | 2,086 | Eutsuk..... | 2,817 | 96 |
| Woods, Lake of the (total, 1,485) part (reservoir). | HW 1,062 LW 1,056 | 69 | François..... | 2,345 | 91 |
| | | | Harrison..... | 2,34 | 87 |
| | | | Kootenay..... | 1,741 | 168 |
| Saskatchewan— | | | Kotcho (unsurveyed and esti- mated)..... | | 90 |
| Amisk..... | 964 | 168 | Lower Arrow..... | 1,379 | 59 |
| Athabasca (total, 3,058) part..... | 899 | 2,165 | Okanagan..... | 1,123 | 136 |
| Beauregard..... | 1,294 | 72 | Ootsa..... | 2,666 | 50 |
| Black Birch..... | 1,517 | 54 | Quesnel..... | 2,375 | 100 |
| Candle..... | 1,620 | 56 | Shuswap..... | 1,137 | 120 |
| Canoe..... | 1,415 | 78 | Stuart..... | 2,225 | 139 |
| Churchill..... | 1,382 | 213 | Tagish (total, 138) part..... | 2,148 | 93 |
| Cold (total, 136) part..... | 1,756 | 36 | Takla..... | 2,270 | 102 |
| Cree..... | 1,541 | 446 ⁺ | Teslin (total, 161) part..... | 2,250 | 65 |
| Cumberland..... | 871 | 93 | Upper Arrow..... | 1,395 | 88 |
| Deschambault..... | 1,072 | 209 | | | |
| Doré..... | 1,506 | 248 | Northwest Territories— | | |
| Ile-à-la-Crosse..... | 1,379 | 165 | Aberdeen..... | 130 | 475 |
| Kamuchawie (total, 56) part..... | 1,153 | 26 | Artillery..... | 1,190 | 207 |
| Kipahigan (total, 59) part..... | 963 | 30 | Aylmer..... | 1,230 | 340 |
| La Plonge..... | 1,476 | 90 | Baker..... | 30 | 975 |
| La Ronce..... | 1,198 | 450 | Clinton-Colden..... | 1,226 | 253 |
| Last Mountain..... | 1,608 | 89 | Dubawnt..... | 500 | 1,600 |
| Loche, la..... | 1,459 | 70 | Faber..... | 753 | 163 |
| Montreal..... | 1,608 | 162 | Franklin..... | | 175 |
| Namew (total, 79) part..... | 873 | 71 | Garry..... | | 980 |
| Nemebien..... | 1,259 | 63 | Gras, de..... | 1,300 | 345 |
| Peter Pond..... | 1,382 | 302 | Great Bear..... | 391 | 12,000 |
| Primrose (total, 181) part..... | 1,964 | 173 | Great Slave..... | 495 | 11,170 |
| Quill..... | 1,704 | 236 | Hardisty..... | 699 | 107 |
| Reindeer (total, 2,444) part..... | 1,150 | 2,058 | Hottah..... | | 377 |
| Riou..... | | 75 | Kaminuriak..... | 320 | 360 |
| Sisipuk (total, 99) part..... | 915 | 26 | Macdougall..... | | 265 |
| Smoothstone..... | 1,572 | 110 | Mackay..... | 1,415 | 250 |
| Snake..... | 1,262 | 159 | Maguse..... | | 540 |
| Tazin..... | 1,130 | 156 | Marian..... | 495 | 90 |
| Wollaston..... | 1,300 | 796 ⁺ | Martre, la..... | | 685 |
| | | | Nueltin (total, 336) part..... | | 260 |
| Alberta— | | | Nutarawit..... | | 350 |
| Athabasca (total, 3,058) part..... | 699 | 893 | Pelly..... | | 331 |
| Beaverhill..... | 2,202 | 80 | Point..... | | 295 |
| Biche, la..... | 1,784 | 94 | Rae..... | 748 | 74 |
| Buffalo..... | 2,566 | 56 | Schultz..... | 115 | 110 |
| Calling..... | 1,947 | 55 | Thaalintoo..... | | 160 |
| Claire..... | 699 | 545 | Todatara (total, 241) part..... | | 85 |
| Cold (total, 136) part..... | 1,756 | 100 | Yathkyed..... | 300 | 860 |
| Lesser Slave..... | 1,893 | 461 | | | |
| Mamawi..... | 699 | 64 | | | |
| Peerless..... | 2,267 | 75 | Yukon Territory— | | |
| Primrose (total, 181) part..... | 1,964 | 8 | Aishihik..... | | 107 |
| Sullivan (variable)..... | 2,652 | 62 | Atlin (total, 308) part..... | 2,200 | 1 |
| Utikuma..... | 2,105 | 85 | Kluane..... | 2,500 | 184 |
| | | | Kusawa..... | 2,565 | 56 |
| British Columbia— | | | Laberge..... | 2,100 | 87 |
| Adams..... | 1,334 | 52 | Tagish (total, 138) part..... | 2,148 | 45 |
| Atlin (total, 308) part..... | 2,200 | 307 | Teslin (total, 161) part..... | 2,250 | 96 |

Subsection 3.—Coastal Waters

The coastline of Canada, one of the longest of any country in the world, comprises the following estimated milages:—

Mainland—

Atlantic, 6,110; Pacific, 1,580; Hudson Strait, 1,245; Hudson Bay, 3,155; Arctic, 5,770; total, 17,860 miles.

Islands—

Atlantic, 8,680; Pacific, 3,980; Hudson Strait, 60; Hudson Bay, 2,305; Arctic, 26,785; total, 41,810 miles.

A comprehensive description of the coastal waters of Canada would require information from sciences such as oceanography, marine biology and meteorology. However, the basic factor in any study of the oceanic-continental margin is the physical relief of the sea floor and the scope of the information presented here is therefore restricted to this and a few salient features of the Atlantic, Arctic and Pacific marginal seas surrounding Canada. Further details are given in the 1947 Year Book, pp. 3-12.

Atlantic.—Along this coastal area, the sea has inundated valleys and lower parts of the Appalachian Mountains as well as those of the Canadian Shield. The submerged Continental Shelf, protruding seaward from the shore, effects the transition from continental to oceanic conditions. This Shelf is distinguished by great width and diversity of relief. From the coast of Nova Scotia its width varies from 60 to 100 miles, from Newfoundland 120 to 50 miles (at the entrance of Hudson Strait), and northward it merges with that of the Arctic Ocean. The outer edge of the Shelf, known as the Continental Shoulder, is of varying depths of from 100 to 200 fathoms before the Shelf suddenly gives way to the steep declivity leading to abyssal depths. The over-all gradient of the Atlantic Continental Shelf is slight but the whole area is studded with shoals, plateaux, banks, ridges and islands and the coasts of Nova Scotia and Newfoundland are rugged and fringed with islets and shoals. Off Nova Scotia the 40-fathom line lies at an average of 12 miles from the shore and constitutes the danger line for coastal shipping. The whole floor of the marginal sea appears to be traversed by channels and gullies cutting well into the Shelf.

The main topographical features of the Atlantic marginal sea floor are attributed to glacial origin but land erosion is an important factor. Eroded materials are carried seaward by rivers, ice and wind, and wave action against cliffs and shore banks washes away enormous masses that are deposited over the surrounding sea floor. The topography of the continental sea floor is therefore constantly changing and navigation charts of Canada's eastern seaboard must be continuously revised.

Arctic.—The submerged plateau protruding from the northern coast of North America is a major part of the Great Continental (or Polar) Shelf surrounding the Arctic Ocean on which lie all the Arctic islands of Canada, Iceland, Greenland and most of those of Europe and Asia. This Shelf develops its maximum width on the 80th meridian of west longitude where it extends from the south of James Bay to the north coast of Ellesmere Island, a distance of over 2,000 miles.

The floor topography of this continental margin is largely unexplored but sufficient has been charted to indicate an abrupt break at the northern oceanward edge. This steep continental terrace borders the whole western side of the Canadian Archipelago and constitutes one of the most striking and significant features of the Polar regions. From this declivity, deep well-developed troughs cut by glaciers enter between the western group of islands. A ridge across Davis Strait on which the depth is about 200 fathoms separates this basin from the open Atlantic.

Hudson Bay and Hudson Strait bite deeply into the continent. Hudson Bay is an inland sea 250,000 sq. miles in area having an average depth of about 70 fathoms; the greatest charted depth in the centre of the Bay is 141 fathoms.

Hudson Strait separates Baffin Island from the continental coast and connects Hudson Bay with the Atlantic Ocean. It is 430 miles long and from 37 to 120 miles wide and its greatest charted depth of 481 fathoms is close inside the Atlantic entrance. Great irregularities of the sea floor are indicated but, except in inshore waters, few navigation hazards have been located.

Pacific.—The marginal sea of the Pacific differs strikingly from the other marine zones of Canada. The hydrography of British Columbia is characterized by bold, abrupt relief—repetition of the mountainous landscape. Numerous inlets penetrate the mountainous coast for distances of 50 to 75 miles. They are usually a mile or two in width and of considerable depth, with steep canyon-like sides. From the islet strewn coast, the Continental Shelf extends from 50 to 100 sea miles to its oceanward limit where depths of

about 200 fathoms are found. There the sea floor drops rapidly to the Pacific Deep, parts of the western slopes of Vancouver Island and the Queen Charlotte Islands lying only four miles and one mile respectively from the edge of the declivity. These great detached land masses are the dominant features of the Pacific marginal sea. As is to be expected in a region so irregular in hydrographic relief, shoals and pinnacle rocks are numerous, necessitating cautious navigation.

Subsection 4.—Islands

The largest islands of Canada are in the north and all experience an Arctic climate. The northern group extends from the islands in James Bay to Ellesmere Island which reaches 83°07'N. Those in the District of Franklin lie north of the mainland of Canada and are generally referred to as the Canadian Arctic Archipelago; those in the extreme north—lying north of the M'Clure Strait—Viscount Melville Sound—Barrow Strait—Lancaster Sound water passage—are known as the Queen Elizabeth Islands.

On the West Coast, Vancouver Island and the Queen Charlotte Islands are the largest and the most important but the coastal waters are studded with many small rocky islands.

The Island of Newfoundland forming part of the Province of Newfoundland, the Province of Prince Edward Island, Cape Breton Island forming part of the Province of Nova Scotia, Grand Manan and Campobello Islands forming part of the Province of New Brunswick and Anticosti Island and the Magdalen group included in the Province of Quebec are the chief islands off the East Coast.

Notable islands of the inland waters include Manitoulin Island (1,068 sq. miles in area) lying in Lake Huron, the so-called Thirty Thousand Islands of Georgian Bay and the Thousand Islands in the outlet from Lake Ontario into the St. Lawrence River.

6.—Islands over 2,000 Square Miles in Area

| Island | Area | Island | Area |
|----------------------|-----------|---------------------------------------|-----------|
| | sq. miles | | sq. miles |
| Arctic Ocean— | | Arctic Ocean—concluded | |
| Baffin..... | 183,810 | Prince Charles..... | 3,500 |
| Ellesmere..... | 82,119 | Cornwallis..... | 2,670 |
| Victoria..... | 81,930 | Amund Ringnes..... | 2,515 |
| Banks..... | 23,230 | | |
| Devon..... | 20,861 | Atlantic Ocean— | |
| Melville..... | 16,141 | Newfoundland..... | 42,734 |
| Axel Heiberg..... | 15,779 | Cape Breton..... | 3,970 |
| Southampton..... | 15,700 | Anticosti (Gulf of St. Lawrence)..... | 3,043 |
| Prince of Wales..... | 12,830 | Prince Edward..... | 2,184 |
| Somerset..... | 9,370 | | |
| Prince Patrick..... | 6,081 | Pacific Ocean— | |
| Bathurst..... | 6,041 | Vancouver..... | 12,408 |
| Ellef Ringnes..... | 5,139 | | |
| King William..... | 4,870 | | |
| Bylot..... | 4,200 | | |

Subsection 5.—Mountains and Other Heights

The predominant orographical feature in Canada is the Great Cordilleran Mountain System which contains many peaks over 10,000 feet in height. The highest peak in Canada is Mount Logan in the St. Elias Mountains of Yukon Territory, which rises 19,850 feet above sea level. The highest elevations in all parts of the country are shown in Table 7 in feet above mean sea level.

7.—Principal Heights in each Province and Territory

| Province and Heights | Elevation | Province and Heights | Elevation |
|---|--------------------|--|-----------|
| | ft. | | ft. |
| Newfoundland | | Manitoba | |
| Long Range— | | Duck Mountain..... | 2,600 |
| Gros Morn..... | 2,666 | Porcupine Mountain..... | 2,500 |
| Mount Blowmedown..... | 2,502 | Riding Mountain..... | 2,000 |
| Mount St. Gregory..... | 2,338 | | |
| Gros Paté..... | 2,115 | Saskatchewan | |
| Blue Mountains..... | 2,085 | Cypress Hills (Summit)..... | 4,243 |
| Table Mountain..... | 1,700 | Wood Mountain (West Summit)..... | 3,371 |
| Blue Hills of Coteau— | | Wood Mountain (East Summit)..... | 3,347 |
| Peter Snout..... | 1,690 | Vermillion Hills..... | 2,255 |
| Butter Pott..... | 950 | | |
| Red Hill..... | 700 | Alberta | |
| Central Highlands— | | Rockies— | |
| Maintopsail..... | 1,800 | Columbia..... | 12,294 |
| Missentopsail..... | 1,761 | The Twins ² | 12,085 |
| Torngats— | | Forbes..... | 11,902 |
| Cirque Mountain..... | 6,500 | Alberta..... | 11,874 |
| Mount Eliot..... | 4,550 | Assiniboine..... | 11,870 |
| Mount Tetragona..... | 4,510 | The Twins ² | 11,675 |
| Mount Razorback..... | 3,660 | Temple..... | 11,636 |
| Mount Sir Donald..... | 1,950 | Kitchener..... | 11,500 |
| Cape Chidley..... | 1,500 | Diadem..... | 11,500 |
| Kaumajets— | | Lyell..... | 11,495 |
| Bishop's Mitre..... | 3,500 ¹ | Athabasca..... | 11,452 |
| | | Hungabee..... | 11,447 |
| Nova Scotia | | King Edward..... | 11,400 |
| Ingonish Mountain..... | 1,392 | Stutfield..... | 11,400 |
| Creignish Hills (at Creignish)..... | 850 | Brazeau..... | 11,386 |
| Cobequid Mountains (at E Mapleton)..... | 840 | Victoria..... | 11,355 |
| North Mountain (4 miles NE of Annapolis)..... | 590 | Snow Dome..... | 11,340 |
| South Mountain (at Annapolis)..... | 515 | Joffre..... | 11,316 |
| | | Murchison..... | 11,300 |
| New Brunswick | | Deltaform..... | 11,225 |
| Mount Carleton..... | 2,690 | Lefroy..... | 11,220 |
| Green River Mountain..... | 1,600 | Alexandra..... | 11,214 |
| Moose Mountain..... | 1,490 | Sir Douglas..... | 11,174 |
| | | Woolley..... | 11,170 |
| Quebec | | Lunette..... | 11,150 |
| Appalachians— | | Hector..... | 11,135 |
| Mount Jacques Cartier (Shickshocks)..... | 4,160 | Clearwater..... | 11,044 |
| Mount Richardson..... | 3,885 | Edith Cavell..... | 11,033 |
| Barn Mountain..... | 3,775 | Fryatt..... | 11,026 |
| Mount Logan..... | 3,700 | Coleman..... | 11,000 |
| Mount Magnetic..... | 3,625 | Wilson..... | 11,000 |
| Mount Albert..... | 3,550 | Eiffel Park..... | 10,691 |
| Mount Bayfield..... | 3,470 | Pinnacle Mountain..... | 10,661 |
| Mount Mattawa..... | 3,370 | Mount Rundle..... | 9,665 |
| Roundtop Mountain (Sutton Mountains)..... | 3,175 | Mount Eisenhower..... | 9,030 |
| Mount Orford..... | 2,860 | Three Sisters..... | 8,840 |
| Mount Hereford..... | 2,760 | Mount Edith..... | 8,370 |
| Pinnacle Mountain..... | 2,150 | | |
| Mount Brome..... | 1,725 | British Columbia | |
| Mount Shefford..... | 1,725 | Coast Range— | |
| Shield— | | Waddington..... | 13,260 |
| Mount Tremblant (Laurentian Mountains)..... | 3,150 | Tiedemann..... | 12,000 |
| Mount Ste. Anne (Laurentian Mountains)..... | 2,625 | Tatlow..... | 10,050 |
| Montereian Hills— | | Skihist..... | 9,660 |
| Mount St. Hilaire..... | 1,350 | Crown..... | 4,708 |
| Mount Yamaska..... | 1,275 | Selkirks— | |
| Rougemont..... | 1,250 | Sir Sandforth..... | 11,342 |
| Mount Johnson..... | 725 | Dawson..... | 11,123 |
| Mount Royal..... | 700 | Hasler..... | 11,113 |
| | | Delphine..... | 11,076 |
| Ontario | | Huber..... | 11,041 |
| Tip Top Hill..... | 2,120 | Wheeler..... | 11,023 |
| Batchawana Mountain..... | 2,100 | Selwyn..... | 11,013 |
| Niagara Escarpment— | | Adamant..... | 10,980 |
| Oster Bluff..... | 1,700 | Grand..... | 10,832 |
| Caledon Mountain..... | 1,400 | Mount Sir Donald (Sir Donald Range)..... | 10,808 |
| Blue Mountains..... | 1,400 | Nelson..... | 10,772 |
| High Hill..... | 1,150 | Inoclast..... | 10,646 |
| Mount Nemo..... | 1,000 | Rogers Park (Hermit Range)..... | 10,536 |
| | | Rockies— | |
| | | Robson..... | 12,972 |
| | | Clemenceau..... | 12,001 |

¹ Approximate.² One of two peaks.

7.—Principal Heights in each Province and Territory—concluded

| Province and Heights | Elevation | Territory and Heights | Elevation |
|-----------------------------------|------------|------------------------------|------------|
| British Columbia—concluded | ft. | Yukon Territory | ft. |
| Rockies—concluded | | St. Elias Mountains— | |
| Goodsir..... | 11,676 | Logan..... | 19,850 |
| Bryce..... | 11,507 | St. Elias..... | 18,008 |
| Chown..... | 11,500 | Lucania..... | 17,150 |
| Resplendent..... | 11,240 | King..... | 17,130 |
| King George..... | 11,226 | Steele..... | 16,439 |
| Consolation..... | 11,200 | Wood..... | 15,880 |
| The Helmet..... | 11,160 | Vancouver..... | 15,700 |
| Whitehorn..... | 11,101 | Hubbard..... | 14,950 |
| Geikie..... | 11,016 | Walsh..... | 14,780 |
| Bush..... | 11,000 | Alverstone..... | 14,500 |
| Sir Alexander..... | 11,000 | McArthur..... | 14,400 |
| Freshfield..... | 10,945 | Augusta..... | 14,070 |
| Mummy..... | 10,918 | Strickland..... | 13,818 |
| Vaux (Vermillion Range)..... | 10,881 | Newton..... | 13,811 |
| Ball..... | 10,865 | Cook..... | 13,760 |
| Churchill..... | 10,500 | Craig..... | 13,250 |
| Stephen..... | 10,485 | Badham..... | 12,625 |
| Cathedral..... | 10,454 | Malaspina..... | 12,150 |
| Storm..... | 10,372 | Jeannette..... | 11,700 |
| Gordon..... | 10,346 | Baird..... | 11,375 |
| President..... | 10,287 | Seattle..... | 10,070 |
| Odaray..... | 10,165 | | |
| Laussedat..... | 10,015 | | |
| Mount Burgess..... | 8,463 | | |
| St. Elias Mountains— | | Northwest Territories | |
| Fairweather..... | 15,287 | Franklin Mountains— | |
| Root..... | 12,860 | Delthore..... | 6,800 |
| Monashee— | | Clark Mountain..... | 3,000 |
| Mount Begbie..... | 8,946 | | to 4,000 |
| Vancouver Island Range— | | Mount Rawlinson..... | 5,000 |
| Mount Albert Edward..... | 6,968 | Nelson Head..... | 1,000 |
| Mount Arrowsmith..... | 5,976 | Mount Pelly..... | 675 |

Section 2.—Main Physical and Economic Features of the Provinces

Politically Canada is divided into ten provinces and two territories. Each of the provinces is sovereign in its own sphere, to the extent set out in the British North America Act 1867 and its amendments, and as new provinces have been organized they have been granted political status equivalent to that of the original provinces. The Yukon and Northwest Territories, with their present boundaries, are administered by the Federal Government. The chief physical and economic features of each of the provinces and of the territories are described in the 1956 Canada Year Book at pp. 12-17. Details of resources and their development are given in later chapters of the present volume.

PART II.—LAND RESOURCES AND PUBLIC LANDS

Section 1.—Land Resources

Information currently available regarding Canada's vast land resources is shown in Table 1, where the land area is classified as occupied agricultural, forested and 'other' land, the latter including urban land, road allowances, grass and brush land and all waste land such as open muskeg, swamp and rock. Soil surveys now under way by the Department of Agriculture will make it possible in the future to estimate the amount of arable land Canada possesses and, as provincial inventories are completed, more information will be available regarding land now non-forested but not productive in an agricultural sense. The Forestry Branch of the Department of Northern Affairs and National Resources estimates that about 46 p.c. of the land area of Canada is forested and, according to the Census of 1956, less than 8 p.c. is classed as occupied farm land. A great part of the 1,687,691 sq. miles of 'other' land is located in the Yukon and Northwest Territories which together have a land area of 1,458,784 sq. miles. The occupied farm land in these Territories is practically nil and the forested area is estimated at 275,800 sq. miles.

1.—Land Area classified as Occupied Agricultural or Forested, by Province

NOTE.—Figures for occupied agricultural land were obtained from the 1956 Census; areas of forested land were compiled by the Forestry Branch, Department of Northern Affairs and National Resources from estimates supplied by the Forest Service in each province and were released Mar. 11, 1957.

| Description | New-found-land | Prince Edward Island | Nova Scotia | New Brunswick | Quebec | Ontario | Manitoba | Saskatchewan | Alberta | British Columbia | Yukon and N.W.T. | Canada |
|--|----------------|----------------------|---------------|---------------|----------------|----------------|----------------|----------------|----------------|------------------|------------------|------------------|
| | sq. miles | sq. miles | sq. miles | sq. miles | sq. miles | sq. miles | sq. miles | sq. miles | sq. miles | sq. miles | sq. miles | sq. miles |
| Occupied Agricultural Land— | | | | | | | | | | | | |
| Improved— | 25 | 659 | 655 | 985 | 8,776 | 13,365 | 16,427 | 60,428 | 34,284 | 1,215 | 1 | 136,819 |
| Crops and summerfallow..... | 9 | 314 | 252 | 395 | 4,129 | 5,423 | 929 | 1,763 | 2,000 | 500 | 1 | 15,715 |
| Pasture..... | 4 | 36 | 77 | 106 | 579 | 856 | 540 | 1,100 | 820 | 108 | 1 | 4,226 |
| Other..... | 42 | 522 | 2,447 | 2,662 | 7,622 | 5,217 | 2,448 | 3,717 | 4,517 | 1,337 | 1 | 30,532 |
| Unimproved— | 32 | 134 | 906 | 510 | 3,754 | 6,201 | 7,674 | 31,108 | 30,208 | 3,932 | 5 | 84,464 |
| Forest (woodland) ² | | | | | | | | | | | | |
| Other..... | | | | | | | | | | | | |
| Totals, Occupied Agricultural Land..... | 112 | 1,665 | 4,337 | 4,658 | 24,860 | 31,062 | 28,018 | 98,116 | 71,829 | 7,092 | 7 | 271,756 |
| Forested Land— | | | | | | | | | | | | |
| Softwood— | 25,735 | 90 | 4,600 | 4,997 | 114,955 | 57,389 | 14,863 | 9,755 | 9,131 | 63,328 | 35,200 | 340,043 |
| Merchantable..... | 3,389 | 216 | 3,180 | 5,962 | 34,547 | 34,331 | 20,778 | 4,573 | 27,036 | 59,849 | 10,000 | 203,861 |
| Young growth..... | 128 | 150 | 825 | 4,175 | 29,465 | 23,242 | 5,553 | 6,376 | 4,583 | — | 19,800 | 94,297 |
| Mixedwood— | 986 | 130 | 480 | 4,983 | 28,991 | 30,750 | 6,566 | 8,281 | 24,142 | — | 3,500 | 108,809 |
| Young growth..... | 31 | 14 | 1,620 | 1,216 | 4,208 | 7,261 | 3,030 | 7,491 | 2,183 | — | 4,700 | 31,754 |
| Hardwood— | 236 | 9 | 850 | 1,450 | 8,606 | 15,988 | 4,837 | 4,625 | 21,152 | — | 2,500 | 60,253 |
| Young growth..... | | | | | | | | | | | | |
| Totals, Productive Forested Land..... | 30,505 | 609 | 11,555 | 22,783 | 220,772 | 108,961 | 55,627 | 41,101 | 88,227 | 123,177 | 75,700 | 839,017 |
| Unproductive Forested Land³..... | 53,268 | — | — | 345 | 130,064 | 48,691 | 64,570 | 79,244 | 63,051 | 142,695 | 200,100 | 782,028 |
| Totals, Forested Land..... | 83,773 | 609 | 11,555 | 23,128 | 350,836 | 217,652 | 120,197 | 120,345 | 151,278 | 265,872 | 275,800 | 1,621,045 |
| Net Productive Land⁴..... | 30,575 | 1,751 | 13,445 | 24,779 | 238,010 | 194,806 | 81,197 | 135,500 | 155,539 | 128,932 | 75,706 | 1,080,241 |
| Other Lands⁵..... | 59,202 | 433 | 7,298 | 2,349 | 155,786 | 90,338 | 66,008 | 5,438 | 30,210 | 87,652 | 1,182,978 | 1,687,691 |
| Totals, Land Area⁶..... | 143,045 | 2,184 | 20,743 | 27,473 | 523,860 | 333,835 | 211,775 | 220,182 | 248,800 | 359,279 | 1,458,784 | 3,549,960 |

¹ Less than one square mile.

² Included in *Forested Land*; duplication eliminated in the item *Net Productive Land*.
³ Areas incapable of producing crops of merchantable timber because of adverse climatic, soil or moisture conditions.
⁴ Includes only occupied agricultural land (less forest woodland) plus productive forested land.
⁵ Comprises all urban land, road allowances, grass and brush land and all waste land such as open muskeg, swamp and rock.
⁶ *Net Productive Land* plus *Unproductive Forested Land* plus *Other Land*.

Section 2.—Public Lands

In Table 2 classifying the area of Canada by tenure, items 2, 3, 4 and 5 are obtained from Federal Government sources and items 1, 6, 7 and 8 from Provincial Government sources.

2.—Area classified by Tenure (circa) 1957

| Item | Nfld. | P.E.I. | N.S. | N.B. | Que. | Ont. |
|---|--------------------|----------------|---------------------|----------------|------------------------|------------------|
| | sq. miles | sq. miles | sq. miles | sq. miles | sq. miles | sq. miles |
| 1. Privately owned land or land in process of alienation from the Crown..... | 6,711 | 2,059 | 17,311 | 16,480 | 43,500 | 41,205 |
| 2. Federal lands other than leased lands, National Parks, Indian reserves and forest experiment stations..... | 934 | 114 | 205 | 820 | 360 ¹ | 2,244 |
| 3. National Parks..... | 156 | 7 | 377 | 80 | ² | 12 |
| 4. Indian reserves..... | — | 4 | 30 | 59 | 279 | 2,438 |
| 5. Federal forest experiment stations..... | — | — | — | 35 | 7 | 97 |
| 6. Provincial lands other than Provincial Parks and provincial forest reserves..... | 148,219 | — | 3,145 | 10,253 | 508,180 | 341,871 |
| 7. Provincial Parks..... | 48 | — | ² | — | 36,264 | 5,189 |
| 8. Provincial forest reserves..... | 117 | — | — | 258 | 6,270 | 19,526 |
| Totals..... | 156,185 | 2,184 | 21,068 | 27,985 | 594,860 | 412,532 |
| | Man. | Sask. | Alta. | B.C. | Yukon and N.W.T. | Canada |
| | sq. miles | sq. miles | sq. miles | sq. miles | sq. miles | sq. miles |
| 1. Privately owned land or land in process of alienation from the Crown..... | 45,965 | 104,400 | 81,789 | 18,987 | 70 | 378,477 |
| 2. Federal lands other than leased lands, National Parks, Indian reserves and forest experiment stations..... | 4,626 | 7,181 | 5,511 | 749 | 1,508,275 ³ | 1,531,019 |
| 3. National Parks..... | 1,148 | 1,496 | 20,718 ⁴ | 1,671 | 3,625 ⁵ | 29,290 |
| 4. Indian reserves..... | 819 | 1,882 | 2,399 | 1,282 | 9 | 9,201 |
| 5. Federal forest experiment stations..... | ⁶ | — | 47 | — | — | 186 |
| 6. Provincial lands other than Provincial Parks and provincial forest reserves..... | 194,428 | 447 | 136,083 | 290,557 | — | 1,633,183 |
| 7. Provincial Parks..... | 4,044 ⁷ | 1,146 | 119 | 12,706 | — | 59,516 |
| 8. Provincial forest reserves..... | 3,094 ⁷ | 135,148 | 8,619 | 40,303 | — | 210,241 |
| Totals..... | 251,030 | 251,700 | 255,285 | 366,255 | 1,511,979 | 3,851,113 |

¹ Includes Gatineau Park (86 sq. miles) and Quebec Battlefields Park (0.36 sq. mile) which are under Federal jurisdiction but are not technically National Parks. ² Less than one square mile. ³ Includes 952,349 sq. miles set aside by Order in Council as native game preserves in which only Indians and Eskimos may hunt, but which are not regarded as National Parks.

⁴ Includes Wood Buffalo Park (13,675 sq. miles) which, although reserved by the Federal Government, is not administered as a National Park. ⁵ That part of Wood Buffalo Park in N.W.T. ⁶ A forest experiment area of 25 sq. miles is included in National Parks figure.

⁷ Three provincial forest reserves in Manitoba with a total area of 3,094 sq. miles are considered as Provincial Parks though not set up as such; duplication is omitted from totals.

Subsection 1.—Federal Public Lands

Public lands under the administration of the Federal Government comprise lands in the Northwest Territories including the Arctic Archipelago and the islands in Hudson Strait, Hudson Bay and James Bay, lands in Yukon Territory, Ordnance and Admiralty Lands, National Parks and National Historic Sites, Forest Experiment Stations, Experimental Farms, Indian reserves and in general all public lands held by the several Departments of the Federal Government for various purposes connected with federal administration. These lands are administered under the Territorial Lands Act (R.S.C. 1952, c. 263) and the Public Lands Grants Act (R.S.C. 1952, c. 224) which became effective June 1, 1950, and replaced previous legislation.

The largest areas under federal jurisdiction are in the Northwest Territories and Yukon Territory where only 70 sq. miles of a total area of 1,511,979 sq. miles are privately owned. This part of the national domain, with the exception of the islands in Hudson Bay and James Bay, is all north of the 60th parallel of latitude and occupies about 40 p.c. of the surface of Canada. It is under the administration of the Northern Administration and Lands Branch of the Department of Northern Affairs and National Resources.

Subsection 2.—Provincial Public Lands

Public lands of Nova Scotia, New Brunswick, Quebec, Ontario and British Columbia (except the Railway Belt and Peace River Block) have been administered since Confederation by the Provincial Governments. In 1930 the Federal Government transferred the unalienated portions of the natural resources of Manitoba, Saskatchewan, Alberta and of sections of British Columbia to the respective governments and all unalienated lands in the Province of Newfoundland, except those administered by the Federal Government, became provincial public lands under the Terms of Union on Mar. 31, 1949. All land in the Province of Prince Edward Island has been alienated except 125 sq. miles under federal administration.

Information regarding provincial public lands may be obtained from the respective provinces. (*See the Directory of Sources of Official Information, Chapter XXIX, under "Lands".*)

Subsection 3.—National and Provincial Parks

The future of Canada in the field of outdoor recreation is being wisely provided for by the establishment of National and Provincial Parks. Many of these Parks are easily accessible by highway, rail or air and offer every type of accommodation from camping facilities to cosy cabins and palatial hotels. A wide variety of summer and winter recreational attractions are available in mountain, lakeland, woodland and seaside areas of exceptional scenic beauty.

The extent of the Park areas in each province is given in Table 2 on p. 19; location, year of establishment, area, and main characteristics of each National Park are given in Table 3, which is followed by a brief description of the Provincial Parks.

National Parks.—From 1885, when the first National Park was established around the mineral hot springs at Banff, Alta., until 1956, 30 areas covering more than 29,000 sq. miles have been set aside as National Parks.

These parks are maintained by the Federal Government for the protection of their flora, fauna and natural phenomena, for the preservation of their scenic beauty and interest and, in some, the marking of their historical significance in the building of the nation. They are supervised by the National Parks Branch, Department of Northern Affairs and National Resources and are developed and maintained in such a manner as to provide perpetual inspiration, education and healthful recreation for present and future generations.

The National Parks are Canada's greatest single tourist attraction. Accommodation in privately owned hotels, bungalow cabins, chalets, lodges and cottages is available and modern cabins have been built in several of the parks by the National Parks Administration to afford low rental accommodation to park visitors. Recreational facilities include heated outdoor swimming pools with dressing-room buildings; equipped camp grounds, some with trailer-park facilities; golf courses in superb scenic settings; tennis courts; bowling greens; well equipped children's playgrounds; athletic fields; horseshoe pitches; outdoor checker-boards; and, in some of the parks, amphitheatres where plays, concerts and film shows are held in the open. For winter sports there are downhill and slalom ski courses, ski jumps, ski tows and, at Banff, a chairlift.

A park warden service protects the forests and wildlife and maintains constant vigilance for the safety and comfort of visitors. Stocking and transfer of game fish are carried out extensively and successfully in order to improve angling opportunities in park waters; fish hatcheries are operated in three of the mountain National Parks. The Scientific Management of Game Fish in Canada's National Parks is the subject of a special article on pp. 35-39 of the 1956 Year Book. Two of the National Parks are largely big-game preserves where herds of buffalo and other animals find sanctuary.

In addition to the scenic, recreational and wild animal parks Canada has 12 national historic parks. The National Parks and Historic Sites Service of the Department of Northern Affairs and National Resources is also responsible for the marking, preservation and restoration of places of great historic interest in Canada. More than 500 such sites have been marked on the recommendation of the Historic Sites and Monuments Board of Canada.

3.—Location, Year Established, Area and Characteristics of National Parks

| Park | Location | Year Estab- lished | Area sq. miles | Characteristics |
|--------------------------------------|--|--------------------------|-----------------------|--|
| Scenic and Recreational Parks | | | | |
| Banff..... | Western Alberta, on east slope of Rockies. | 1885 | 2,564.0 | Magnificent scenic recreational area; noted resorts, Banff and Lake Louise. Mineral hot springs; summer and winter sports. Accessible by rail and highway. Hotel and bungalow cabin accommodation. Equipped camp grounds. |
| Yoho..... | Eastern British Columbia, on west slope of Rockies. | 1886 | 507.0 | Lofty peaks, magnificent waterfalls, colourful lakes. Yoho and Kicking Horse Valleys. Accessible by rail and highway. Hotel and bungalow cabin accommodation. Equipped camp grounds. |
| Glacier..... | Southeastern British Columbia, on summit of the Selkirk Range. | 1886 | 521.0 | Superb alpine region, towering peaks, glaciers and forests. Accessible by rail only. Climbing, skiing, camping. |
| Waterton Lakes..... | Southern Alberta, adjoining Glacier Park in Montana, U.S.A. | 1895 | 204.0 | Canadian section, Waterton-Glacier International Peace Park. Mountain playground with spectacular peaks and beautiful lakes. Accessible by highway. Hotel and bungalow cabin accommodation. Equipped camp grounds. |
| Jasper..... | Western Alberta, on east slope of Rockies. | 1907 | 4,200.0 | Mountain playground and noted wildlife sanctuary. Majestic peaks, ice fields, beautiful lakes and famous resort, Jasper. Mineral hot springs, summer and winter sports. Accessible by rail and highway. Hotel and bungalow cabin accommodation. Equipped camp grounds. |

3.—Location, Year Established, Area and Characteristics of National Parks—continued

| Park | Location | Year Estab- lished | Area | Characteristics |
|---|--|--------------------------|------------------|--|
| | | | sq. miles | |
| Scenic and Recreational Parks —concluded | | | | |
| Mount Revelstoke..... | Southeastern British Columbia, on west slope of Selkirk. | 1914 | 100.0 | Rolling mountain-top plateau. Colourful alpine meadows. Accessible by rail and highway. Summer accommodation in Park; all-year accommodation in town of Revelstoke. Championship ski runs and ski jump. Equipped camp grounds. |
| St. Lawrence Islands... | In St. Lawrence River between Morrisburg and Kingston, Ont. | 1914 | 189.4 (acres) | Mainland area and 13 islands among Thousand Islands. Recreational and camping area. Accessible by highway; by boat from nearby mainland points. |
| Point Pelee..... | Southern Ontario, on Lake Erie. | 1918 | 6.0 | Recreational area. Remarkable beaches, southern flora. Resting place for migratory birds. Accessible by highway. Hotel and bungalow cabin accommodation. Equipped camp grounds. |
| Kootenay..... | Southeastern British Columbia, on west slope of Rockies. | 1920 | 543.0 | Encloses Vermilion-Sinclair section of Banff-Windermere Highway. Broad valleys, deep canyons, mineral hot springs. Hotel and bungalow cabin accommodation. Equipped camp grounds. |
| Prince Albert..... | Central Saskatchewan, north of Prince Albert. | 1927 | 1,496.0 | Forested region dotted with lakes and interlaced with streams. Summer playground and recreational area. Accessible by highway. Hotel and bungalow cabin accommodation. Equipped camp grounds. |
| Riding Mountain..... | Southwestern Manitoba, west of Lake Winnipeg. | 1929 | 1,148.5 | Playground and wildlife sanctuary on summit of escarpment. Fine lakes. Accessible by highway. Hotel and bungalow cabin accommodation. Equipped camp grounds. |
| Georgian Bay Islands.. | In Georgian Bay, north of Midland, Ont. | 1929 | 5.4 | Recreational and camping area. Unique pillars on Flowerpot Island. Accessible by boat from nearby mainland points. Equipped camp grounds and annual youth camps on Beausoleil Island. |
| Cape Breton Highlands. | Northern part of Cape Breton Island, N.S. | 1936 | 390.0 | Rugged Atlantic coast line with mountain background. Fine seascapes. Recreational opportunities. Hotel and bungalow cabin accommodation. Equipped camp grounds. |
| Prince Edward Island.. | North shore of Prince Edward Island. | 1937 | 7.0 | Strip 25 miles long on shores of the Gulf of St. Lawrence. Recreational area, fine bathing beaches. Accessible by highway. Hotel and bungalow cabin accommodation. Equipped camp grounds. |
| Fundy..... | On Bay of Fundy between Moncton and Saint John in New Brunswick. | 1948 | 79.5 | Delightful recreational area. Forested region, wildlife sanctuary, rugged terrain. Bungalow cabin accommodation. Equipped camp grounds. |
| Terra Nova..... | On Bonavista Bay, Newfoundland, 150 miles north of St. John's. | 1957 | 156.0 | Newly acquired maritime area as yet undeveloped; rocky headlands, wooded areas with abundant wildlife, off-shore and freshwater fishing. |

3.—Location, Year Established, Area and Characteristics of National Parks—concluded

| Park | Location | Year Estab- lished | Area | Characteristics |
|---------------------------------|---|--------------------------|-----------|---|
| | | | sq. miles | |
| Wild Animal Parks | | | | |
| Elk Island..... | Central Alberta, near Ed- monton. | 1913 | 75.0 | Fenced preserve containing large herd of buffalo; also deer, elk and moose. Popular recreational area. Accessible by high- way. Bungalow cabin accommodation and equipped camp grounds. |
| Wood Buffalo ¹ | Partly in Alberta and partly in Northwest Ter- ritories, between Atha- basca and Slave Rivers. | 1922 | 17,300.0 | Immense region of forests and open plains. Home of largest remaining herd of bison on the Continent. Other wildlife abun- dant. |
| Historic Parks | | | | |
| | | | acres | |
| Fort Anne..... | Nova Scotia, at Annapolis Royal. | 1917 | 31.0 | Site of early Acadian settlement. Museum and well preserved earthworks. |
| Fort Beausejour..... | New Brunswick, near Sackville. | 1926 | 81.3 | Site of French fort erected in middle of 18th century. Museum. |
| Fortress of Louisbourg | Cape Breton Island, N.S., 25 miles from Sydney. | 1941 | 339.5 | Ruins of walled city erected by the French, 1720-40. Interesting excavations. Mu- seum. |
| Port Royal..... | Port Royal, N.S., 8 miles from Annapolis Royal. | 1941 | 20.5 | Restoration of "Habitation" or first fort built in 1605 by Champlain, DeMonts and Poutrincourt. |
| Fort Chambly..... | Chambly, Que..... | 1941 | 2.5 | French fort on Richelieu River, first built in 1665. Museum. |
| Fort Lennox..... | Ile-aux-Noix, Que., near St. Johns. | 1941 | 210.0 | Site of early French fort built in 1759. |
| Fort Wellington..... | Prescott, Ont..... | 1941 | 8.5 | Defence post built 1812-13. Museum. |
| Fort Malden..... | Amherstburg, Ont..... | 1941 | 5.0 | Site of defence post built 1797-99. Museums. |
| Fort Prince of Wales... | Northern Manitoba, near Churchill. | 1941 | 50.0 | Ruins of fort built 1733-71 to secure control of Hudson Bay for England. |
| Lower Fort Garry..... | Manitoba, 20 miles north of Winnipeg. | 1951 | 12.8 | Stone-walled fort built by the Hudson's Bay Company between 1831 and 1839. |
| Fort Battleford..... | Saskatchewan, 4 miles south of North Battle- ford. | 1951 | 36.7 | North West Mounted Police post built in 1876. |
| Woodside..... | Kitchener, Ont..... | 1954 | 11.0 | Boyhood home of the Rt. Hon. William Lyon MacKenzie King, former Prime Minister of Canada. |
| Halifax Citadel..... | Halifax, N.S..... | 1956 | 36.9 | Defence post constructed 1828-42. Museums |

¹Administered by the Northern Administration and Lands Branch, Department of Northern Affairs and National Resources.

Provincial Parks.—In addition to the National Parks described above, most of the Provincial Governments have established parks within their boundaries. These parks, in the same way as the National Parks, are areas of special scenic or other interest, preserved and maintained for the benefit of the public but many of them are still undeveloped. A detailed list of Provincial Parks, showing location, year established, area and a short description of each, is given in the 1954 Year Book, pp. 26-30. The more important parks in each province are mentioned briefly in the following outline.

Newfoundland.—There are 48 sq. miles of provincial park area in Newfoundland. The 42 sq. miles on the west coast established as Serpentine Park is undeveloped, but the 6 sq. miles recently taken over on the Upper Humber River is now under development. Surveys are being conducted with a view to setting aside about 200 acres of Crown land throughout the Province to be used as small parks and picnic sites ranging in size from half-acre to fifty-acre lots.

Quebec.—The Province of Quebec has established five Provincial Parks and eight Fish and Game Reserves. Four of the park areas are quite extensive. La Vérendrye Park, 140 miles northwest of Montreal, has an area of 4,746 sq. miles; Laurentide Park, 30 miles north of Quebec City, has 3,612 sq. miles; Mont Tremblant, 80 miles north of Montreal, 1,223 sq. miles; and Gaspesian Park, Gaspé Peninsula, 514 sq. miles. Mount Orford Park, situated 15 miles west of Sherbrooke, has an area of 16 sq. miles.

The Fish and Game Reserves together occupy more than 30,000 sq. miles. The Chibougamau Reserve and the Mistassini Reserve, both northwest of Lake St. John, cover 3,400 sq. miles and 5,300 sq. miles respectively; the Kipawa Reserve in the Témiscamingue district, 1,000 sq. miles; and the Shickshock Reserve adjoining Gaspesian Park, 314 sq. miles. The Petite Cascapédia, 305 sq. miles, and the Port Daniel, 30 sq. miles, reserved for salmon and trout fishing, both lie along the Bay of Chaleur in Gaspé Peninsula, while the Mingan Reserve, largest of them all with an area of 21,000 sq. miles, lies on the north shore of the St. Lawrence River in Saguenay County.

These parks and reserves are wilderness areas of great scenic interest—for the most part mountainous country threaded with many rivers, lakes and streams and abounding in wildlife. In all of them, except Mount Orford, excellent fishing may be found and most of them have been organized to accommodate sportsmen and tourists in camps, cottages and lodges. Mont Tremblant is a famous resort area in both summer and winter and is easily reached by highway the year round from Montreal. The Department of Game and Fisheries administers the parks and reserves, and also four salmon streams which are open to anglers.

Ontario.—The Provincial Park program in Ontario has been greatly expanded since 1955. Six areas under development at the end of that year have been increased to 110 parks and park reserves by mid-1957. In 83 of these at least minor improvements have been effected and 67 are supplied with caretaker services and with camping and picnic facilities. The four largest parks—Algonquin, Quetico, Superior and Sibley—together have an area of nearly 4,700 sq. miles. Algonquin, 141 miles north of Toronto and 105 miles west of Ottawa, was the first to be established and is the best known. It is well provided with commercial camps for children and adults, easily accessible by road, but the present administrative policy is to encourage the establishment of commercial recreation facilities on the park fringes and to return the park itself to its natural condition. The interiors of Quetico and Superior Parks are also being retained as wilderness areas with fringe development. Quetico Park is accessible by road through the recently developed French Lake campsite, and by water; an extension to Highway No. 17 northward from Sault Ste. Marie will give access to Superior Park; and Sibley Park may also be reached by road from Highway 17 eastward from Port Arthur.

The parks are administered by the Parks Branch of the Department of Lands and Forests, Toronto, from which detailed information is available in brochure form.

Manitoba.—Three forest reserve areas in Manitoba may be considered as Provincial Parks, although they are not set up as such—Whiteshell Forest Reserve (1,088 sq. miles), Cormorant Forest Reserve (580 sq. miles) and Duck Mountain Forest Reserve (1,426 sq. miles). In addition there are eleven areas including the Northern Recreational Area, Amaranth Beach, Lynch Point, Pelican Lake, Rook Lake, Killarney, Seven Sisters, Pine Falls, Beaver Creek, Wallace Lake and Bird Lake, which make up a total of 950 sq. miles of new parks and recreational areas established up to 1957.

Saskatchewan.—Saskatchewan has ten Provincial Parks with a total area of about 1,600 sq. miles. Cypress Hills, Duck Mountain, Greenwater Lake, Moose Mountain, and Valley Centre are operated as summer resorts with chalet, lodge, cabin and trailer accommodation, and camping and picnic facilities. Recreational activities include fishing, boating, swimming, golf, tennis, dancing, baseball, hiking, horseback riding, etc., and the parks are all well fitted with playground and beach equipment for children. In Cypress Hills Park, elk, antelope, deer and beaver are plentiful and brook and other trout abound in the streams and lakes. Heavy stands of tall, straight lodgepole pine provide forest cover in this area. In Duck Mountain, Moose Mountain and Greenwater Lake Parks, moose, elk, deer, bear and beaver are common as well as several varieties of grouse. Spruce, poplar and white birch provide excellent cover for wildlife. Pickerel, pike and perch are prevalent in the lakes.

Alberta.—In Alberta, 31 Provincial Parks have been established by Order in Council of which 25 are being extensively developed at the present time. The Cypress Hills Provincial Park, covering an area of over 77 sq. miles, is the largest of these parks and is situated in the southeast portion of the Province. The other parks under development are: Aspen Beach, Beauvais Lake, Crimson Lake, Cross Lake, Dillberry Lake, Garner Lake, Gooseberry Lake, Kinbrook Island, Lac Cardinal, Little Bow, Ma-Me-O Beach, Park Lake, Pembina River, Red Lodge, Rochon Sands, Saskatoon Island, Steveston Dinosaur, Sylvan Lake, Taber, Vermilion, Wabamun Lake, Winagami Beach, Woolford and Writing-on-Stone. Picnic facilities, playground equipment and camping areas are provided in these parks which are maintained primarily for the recreation and enjoyment of Alberta residents.

British Columbia.—There are 112 Provincial Parks in British Columbia with a total area of about 12,706 sq. miles. These parks are classified A, B, C and Special. Class A Parks are those considered most highly for immediate recreational development and are strongly protected. Class B Parks are areas slated for development—valuable wilderness areas or places set aside for a specific reason. Class C Parks are intended primarily for the use of local residents and are usually under Board management. Special Parks, of which only one remains, were created in the past by Special Acts of the Legislature. The parks are in all stages of development and dedicated to a variety of recreational uses. There are immense wilderness areas such as Tweedsmuir and Wells Gray Parks and outstanding scenic and mountain places which include Garibaldi, Mount Robson and E. C. Manning Parks. Thousands of city dwellers throng to the ski slopes of Mount Seymour or picnic at Cultus Lake Park. The formal gardens of Peace Arch are a monument to the goodwill between Canada and the United States. Vancouver Island has a chain of small forest parks that have achieved a tremendous popularity with tourists—the best known are Little Qualicum Falls and Miracle Beach. In addition there is a campsite system closely integrated with the Provincial Parks, many campsites actually being located in the parks.

Subsection 4.—The National Capital Plan

Ottawa, the city selected by Queen Victoria in 1857 to be the permanent seat of the legislature of the united provinces of Upper and Lower Canada, was designated the National Capital of the Dominion upon Confederation in 1867. The community grew out of the military and construction camp which served as headquarters for the building of the Rideau Canal—a military project carried out between 1826 and 1832 which utilized the Rideau and Cataraqui Rivers to link Kingston on the St. Lawrence River and Lake Ontario with the Ottawa River thus providing a safe interior military waterway between Lake Ontario and Montreal by bypassing the vulnerable international section of the St. Lawrence River. Originally known as Bytown, after Col. John By, R.E., builder of the canal, the settlement prospered with the development of the lumber trade. The Act of Incorporation, changing Bytown to the City of Ottawa, was proclaimed on Jan. 1, 1855.

The city, situated in an area of great natural beauty, has remained a self-governing municipality and, although throughout the years the Federal Government co-operated with the municipal authorities in the development of a system of driveways and parks,

the city expanded without the benefit of any planned direction. In 1946, however, a Master Plan was approved, designed to guide the development of the Capital's urban area over the next half-century and to protect the beauty of the surrounding National Capital District. That District covers an area of about 900 sq. miles, one-third of which lies in the Province of Ontario and the remainder in Quebec. The co-operation of the Cities of Ottawa and Hull, twenty-eight other autonomous municipalities and the two provincial governments is essential to the successful implementation of the Plan. The federal agency responsible for its fulfilment is the Federal District Commission.

Projects under the Master Plan fall into four main categories: those for which the FDC is responsible, such as development of the Capital's parkway and parks system, including Gatineau Park and the relocation of the Capital's railway system; the federal building program, carried out by the Department of Public Works or other federal agencies, with the locations and exterior design of buildings subject to FDC approval; joint projects with the local municipalities in which the FDC is the federal planning and financial agency; and, finally, entirely municipal projects.

Details of the Plan are given in the 1956 Year Book at pp. 30-34. The present coverage serves to bring that review up to mid-1957.

The year 1957 was the tenth of active development under the Master Plan. During that year, in the urban area, work continued on the development of the 125-acre Hog's Back Park, designed to accommodate group picnics, and on Colonel By Drive along the east bank of the Rideau Canal between Dow's Lake and Hog's Back. The reconstruction of the Lady Alexander Drive section of the Driveway system in Rockcliffe, with its attractive views of the Ottawa River, was completed. Restoration of the Rideau Falls area continued with the demolition of old buildings adjacent to the French Embassy and the landscaping of the point on Green Island between the twin falls. Construction of Ottawa's new City Hall on the upstream end of Green Island was well advanced. In the east Hull area, plans were made for the development of a large park, with bathing and picnicking facilities, at Leamy Lake.

Progress on the long-range project to remove most of the railway operations from the central area of Ottawa to the outskirts continued with the transfer of CNR local freight services from Union Station to the new Ottawa freight terminus constructed by the FDC east of the Rideau River in the Hurdman Bridge area. The new Walkley Road yard facilities constructed by the Commission along the southern boundary of Ottawa West were occupied by the CNR in 1955, permitting the abandonment of the old CNR Bank Street yards on the cross-town tracks and clearing the right-of-way for construction of the Queensway. The agreement for the construction of the Queensway (actually a rerouting of Highway 17 for 21 miles across the Capital and its approaches from east to west, using the right-of-way of the abandoned CNR cross-town tracks for most of its length) was signed in 1957. The costs of this \$31,000,000 project will be shared by the Ontario Department of Highways, the Trans-Canada Highway Authority of the Federal Department of Public Works and by the City of Ottawa, the FDC providing the right-of-way westerly from the City's eastern boundary. Negotiations continued with the Canadian National and Canadian Pacific Railway Companies for establishment of a terminal company to operate all rail facilities south of the Ottawa River.

The extensive federal building program continued, although some years will elapse before new construction will permit the demolition of all the temporary wartime office structures erected in the Capital. Twelve major federal building sites in different sections of Ottawa's metropolitan area are in various stages of development, and over the past decade about 150 new federal buildings have been built or are under construction. Currently under development is the Rideau Heights site, overlooking the Rideau River between the south central area and the airport, where new buildings are being erected for the Department of Public Works and the Post Office Department; and the Department of Mines and Technical Surveys site adjacent to the Bureau of Mines buildings on Booth Street near Carling Avenue. A new Canadian Broadcasting Corporation head office

building will also be built in the Rideau Heights area. Development of the Tunney's Pasture site in the west central area continued with completion of new buildings for branches of the Departments of National Health and Welfare and for Atomic Energy of Canada. A start was made on the new Science Service Building of the Department of Agriculture in the Dominion Experimental Farm. The west structure of the Veterans Memorial Buildings on Wellington Street will be completed in 1958 and will be occupied by the Department of Trade and Commerce thus permitting demolition of No. 1 Temporary Building on the west end of Wellington Street and the erection there of the new National Library building.

A number of other federal buildings are in the planning stage, including a tri-service hospital on the Smyth Road east of the Rideau River. Ottawa's airport, where the FDC co-ordinated plans of the Royal Canadian Air Force, the Department of Transport and the National Aeronautical Establishment, is being extensively developed, and the Department of Transport started construction of a modern civilian air terminal building.

By 1957 the FDC had acquired most of the land needed for some fifty miles of new federal parkways, but apart from completion of the two-mile Fairy Lake Parkway in west Hull, no actual starts had been made. Fortune Lake Parkway in Gatineau Park, with its spectacular vistas of the Ottawa River valley, was paved and landscaped and a start was made on the ten-mile section running northerly from the Aylmer road in west Hull. The land acquisition program for the development of Gatineau Park in the Laurentian Hills north and west of the Ottawa-Hull metropolitan area made progress, and park improvements were continued with the construction of additional parking areas for the extensively used picnic grounds and bathing beaches at Lac Philippe.

Ottawa's major new municipal project is the widening of Carling Avenue from Bronson west to Kirkwood. Federally owned lands necessary to the construction of the new divided roadway were contributed to the project. The City has also undertaken the preparation of an official plan to guide its development within the framework of the Master Plan and part of the costs and technical assistance are being provided by the Commission. A federal-municipal committee was established to study the question of Ottawa River crossings between Ottawa and Hull. The committee concurred in the recommendations of an engineering firm that a new Ottawa-Hull bridge be eventually located about half a mile downstream from the present Interprovincial road and rail bridge. Smaller municipalities in the National Capital region are also being assisted by the FDC in the preparation of building and zoning by-laws.

In the spring of 1957 a Joint Committee of the Senate and the House of Commons reviewed the progress made by the Federal District Commission in the implementation of the National Capital Plan and its projects for the future. The Joint Committee report resulted in the drafting and subsequent first reading in Parliament of a new Act designed to facilitate the Commission's work, both in federal planning works and in co-operative Master Plan projects with the local municipalities.

Section 3.—Wildlife Resources and Conservation*

The Canadian Wildlife Service.—The Canadian Wildlife Service of the National Parks Branch, Department of Northern Affairs and National Resources is responsible for attending to wildlife matters coming within the jurisdiction of the Federal Government, except those within the purview of the National Museum and certain activities closely related to Indian affairs.

Its functions include acting in an advisory capacity with regard to conservation and management of wildlife in the Northwest Territories and Yukon Territory; advising and co-operating with the National Parks and Historic Sites Division regarding fish and wildlife problems in the National Parks; and administration of the Migratory Birds Convention Act in conjunction with the Royal Canadian Mounted Police and in co-operation with the

* Prepared by the Canadian Wildlife Service, Department of Northern Affairs and National Resources, Ottawa.

provincial game authorities. The Canadian Wildlife Service also handles national and international problems relating to Canada's wildlife resources and co-operates with governmental and other agencies having similar interests and problems in Canada and elsewhere.

The Service issues permits for bird-banding in Canada and is the Canadian clearing-house for bird-banding information. It issues permits to qualified persons to take migratory birds for scientific purposes; to take and possess migratory birds for propagating purposes; to collect eiderdown; and to engage in the business of taxidermy.

The Canadian Wildlife Service plans and carries out research into the ecology, numbers, food, shelter, migration, reproduction, diseases, parasites, predators, competitors and uses of wild creatures in Canada. In certain of these investigations, e.g., the mid-winter water-fowl inventory, it works in close co-operation with the United States Fish and Wildlife Service and with federal, provincial and private agencies in Canada. The Service is responsible for the establishment and administration of bird sanctuaries under the Migratory Birds Convention Act. On Dec. 31, 1956, there were 90 bird sanctuaries in Canada with a total area of more than 1,800 sq. miles.

The Limnology Section of the Service is concerned with research leading to the maintenance and improvement of sport fishing, the control of aquatic and semi-aquatic insects, the control of algæ, and with other biological problems that arise in regard to water areas in the National Parks. It also acts in an advisory capacity to the Northern Administration and Lands Branch in connection with aquatic biological matters.

A series of special articles relating to the wildlife resources of Canada are being carried in the Year Book. Articles on Migratory Bird Protection in Canada, Game Fish in Canada's National Parks, The Barren-Ground Caribou, Migratory Bird Legislation, and Scientific Management of Game Fish in Canada's National Parks were carried in the 1951, 1952-53, 1954, 1955 and 1956 editions, respectively. The following article on the Musk-ox has been prepared by the mammalogical section of the Canadian Wildlife Service.

THE MUSK-OX

Canada shares with Greenland the distinction of harbouring native stocks of one of the most interesting of the Arctic animals, the musk-ox. This ruminant, or cud-chewing mammal, is found in certain areas of the Arctic mainland of Canada and on most of the larger Arctic islands. At first glance the musk-ox looks like a very hairy buffalo, but closer inspection reveals many important differences. Although it has a hump over the shoulders like a buffalo, the musk-ox is smaller, a large bull weighing up to about 900 lb. It has a long shaggy outer coat of hair and a very fine inner 'wool' to provide protection in winter.

The musk-ox is a survivor of ice-age times. It lived when the woolly mammoth roamed northern North America but, unlike the latter, it managed to survive after the disappearance of the vast glaciers which covered much of the country. In physical structure the musk-ox is closer to sheep or goats than to cattle. Its nearest living relative is the takin, an animal found only in mountainous Tibet.

At one time, before they began to be hunted, musk-oxen had a wide if sparse distribution throughout the barren-land regions of the Arctic mainland and Arctic islands of Canada. One exception is that there are no known records of musk-oxen on Baffin Island, possibly because of their extinction long ago by natives or because that island, for obscure reasons, was never colonized by musk-oxen.

However, records left by Samuel Hearne in the 1770's provide evidence that, even at that time, musk-oxen were restricted in numbers and distribution. Again, from 1862 to 1916 the Arctic mainland population was further drastically reduced. Musk-oxen were killed

for the commercial value of their hides, for skins and for meat by whalers wintering along the Arctic coast east of the Mackenzie River delta. On the Arctic islands similar heavy killing is recorded. The population on Banks Island was exterminated by natives before 1870 and, in the name of exploration, hundreds of animals were killed on Melville and Ellesmere Islands early in the present century. By 1930 the total population of musk-oxen in Canada was estimated by Dr. R. M. Anderson of the National Museum of Canada to be between 12,000 and 13,000 animals, of which 500 were on the mainland. That estimate is now believed to have been too high.

The extermination of many herds and the near elimination of many others, particularly on the Canadian Arctic mainland, in the second half of the 19th century and during the first fifteen years of the 20th century, created grave concern for the survival of the musk-ox. To conservationists it was unthinkable that a large ungulate, well adapted to living in a rigorous Arctic environment, should become extinct. The Canadian Government therefore passed an Act in 1917 protecting musk-oxen completely and in 1927 set aside the Thelon Game Sanctuary in the Northwest Territories to provide an area where musk-oxen and other valuable wildlife could increase without human interference.

Today musk-oxen are increasing steadily, if slowly, in numbers and are being reported in areas such as Banks Island and the area north of Great Bear Lake, where formerly they were believed to have been exterminated. The population in the Thelon Game Sanctuary is estimated to be over 350 animals. The total population in Canada is estimated at about 5,000 animals, of which 1,500 are thought to be on the Arctic mainland and 3,500 on the Arctic islands.

Musk-oxen are essentially gregarious, feeding and travelling in herds which vary in size from units of four or five animals to as many as one hundred. Herds exist throughout the year but probably do not contain the same individuals from year to year because the herds mingle in the autumn after the breeding season and disperse later into smaller units. When grazing or browsing, the individuals of a herd may be spread over an area of several hundred square yards but the herd unity is not lost because the wanderers rejoin the herd as soon as they notice their exposed situation. Mature bulls are frequently solitary in their habits, particularly immediately before and after the breeding season.

This desire to remain in herd formation appears to be an outstanding characteristic of the animals. The value and perhaps the original function of that social character is evident when a herd is attacked by wolves. The musk-oxen group together in a rough circle, facing outwards, with calves and immature animals between the adults. One wolf or a small pack would not be likely to attack successfully such a defensive formation. The sharp, heavy horns of adult cows and bulls, their heavy coat of long hair, nimble feet and powerful bodies make them formidable opponents. When sled dogs or possibly a large pack of wolves attack musk-oxen, bulls and adult cows make short dashes towards the predators in attempts to gore them, and then back into the herd. Under such circumstances it is possible that some musk-oxen are killed by their attackers.

The food of musk-oxen varies with the season and the terrain. In summer, on the Canadian Arctic mainland, the animals are browsers and grazers, feeding on willow, grasses, forbs and sedges. On the Arctic islands where willow growth is confined to prostrate plants sparsely scattered over large regions, musk-oxen must use a larger proportion of grasses and plants such as saxifrage (*Saxifraga oppositifolia* L.) and dryas (*Dryas integrifolia* M. Vahl.). Winter food is obtained in hilly country where vegetation is kept partly or completely free of snow by prevailing winds. Willow, birch, labrador tea and other woody plants form the bulk of food in winter. The extent of the seasonal movements between winter and summer ranges depends upon the nature of the country in which the animals live. In the

Arctic islands preliminary evidence suggests that these movements do not involve distances of more than 50 miles. On the mainland of Canada evidence suggests that musk-oxen there may move a distance of 50 to 100 miles or more to reach suitable feeding areas.

Much remains to be discovered about the reproductive biology of these ungulates. Their remote environment and relative scarcity make it difficult and expensive to conduct continuous long-term investigation. However, it is believed that musk-ox cows are mature at three or four years of age and bulls at five or six years of age. Cows do not seek a solitary spot to give birth to young, but remain with the herd. Evidence obtained from various studies suggests that calving occurs in alternate years with one calf delivered at a time. Twins are born rarely.

Fighting between adult bulls for the possession of herds and essentially of cows occurs chiefly during the months of July and August. Breeding occurs then, and the calving season extends from about the middle of April to the end of May. These dates appear to be true for the entire range of musk-oxen, which extends over a distance of 1,100 miles from latitude 64° N. to 82° N.

The calf percentage in a musk-ox population is low when compared with that of many other ungulates. On Fosheim Peninsula, for example, calves in 1951 comprised 9.2 p.c. of 215 animals, and in the Thelon Game Sanctuary in 1952 they were 11.2 p.c. of 169 musk-oxen. Calf survival was found to be extremely low in 1951 on Ellesmere Island, only three yearlings being present in the population studied. In the Thelon Game Sanctuary, however, survival in 1952 was found to be slightly over 60 p.c.

Canada's musk-oxen, in the rather distant future, may become an increasingly valuable resource. From a scientific viewpoint they present very interesting problems of research and management. From an economic viewpoint, as a result of eventual restocking of depleted areas and careful management of existing stocks, musk-oxen may once more reach the level of abundance where utilization could be permitted by natives or resident white people.

PART III.—CLIMATE AND TIME ZONES

Section 1.—Climate

A comprehensive discussion of the climatic regions of Canada is available in the 1948-49 Year Book, pp. 41-62, and detailed tabulations of climatic factors covering 36 meteorological stations located mostly at well known or populous centres are given in the 1950 Year Book, pp. 35-70. Other articles appearing in previous editions are listed under "Climate and Meteorology" in Chapter XXIX of this volume.

Table 1 gives long-term temperature and precipitation data for 35 representative Canadian stations; Tables 2 and 3 provide monthly temperature and precipitation data during 1956 for these same stations. These are mostly well sited or populous places with climates fairly representative of a considerable area. The figures given under "Temperatures" are averages obtained over the period of observation. Under "Precipitation", in calculating the annual total, inches of rain is considered the total depth of water accumulated on a hypothetical horizontal impervious surface without evaporation. Similarly the depth of snow given is that which falls on a horizontal surface without settling, melting or sublimation. Because the depth of water obtained from melting newly fallen snow is roughly one-tenth of the depth of the snow, the total precipitation is obtained by adding together the total rainfall and one-tenth of the depth of the newly fallen snow. A day with rain is, for the purpose of these tables, one on which 1/100 of an inch or more falls and a day with snow is one with at least 1/10 of an inch of newly fallen snow. Whenever the temperature four feet above the ground falls to 32°F. or lower the day is counted as a day with frost. The average date of the last spring frost and of the first frost in autumn marks the approximate period continuously free from frost.

1.—Long-Term Temperature and Precipitation Data for 35 Representative Stations

| Station | Height Above Sea ft. | Length of Record yrs. | TEMPERATURES (Fahrenheit) | | | | Annual Heating Degree Days | Killing Frost Average Dates | | PRECIPITATION (inches) | | | | | Number of Days Precipitation | | |
|----------------------------|-------------------------------|--------------------------------|------------------------------|-------|------|------------------------------------|-------------------------------------|-----------------------------------|-------------------|---------------------------|-----------------|----------------|------|------|------------------------------------|------|------|
| | | | Annual | Jan. | July | Highest on Record 1921-50 | | Lowest on Record 1921-50 | Last in Spring | First in Autumn | Annual Total | Annual Snow | Jan. | Apr. | | July | Oct. |
| | | | | | | | | | | | | | | | | | |
| Snow Total | | | | | | | | | | | | | | | | | |
| Gander, Nfld. | 452 | 14 | 39.2 | 19.0 | 62.1 | 91 | -16 | 9,440 | June 1 | Oct. 3 | 39.50 | 119.2 | 2.63 | 2.57 | 3.61 | 4.09 | 88 |
| St. John's (Torbay), Nfld. | 443 | 10 | 40.6 | 23.9 | 59.4 | 86 | -10 | 8,940 | June 10 | Oct. 10 | 59.99 | 141.3 | 5.22 | 5.02 | 3.97 | 5.59 | 74 |
| Goose Bay, Nfld. | 144 | 10 | 31.7 | 0.0 | 61.2 | 100 | -33 | 12,140 | June 10 | Sept. 14 | 29.03 | 144.1 | 1.93 | 1.76 | 3.28 | 4.47 | 89 |
| Charlottetown, P.E.I. | 186 | 30 | 42.5 | 25.8 | 66.6 | 98 | -22 | 7,560 | May 10 | Oct. 13 | 43.13 | 112.7 | 4.09 | 2.85 | 4.12 | 5.22 | 102 |
| Digby, N.S. | 43 | 30 | 44.4 | 28.3 | 63.8 | 92 | -21 | 7,560 | May 10 | Oct. 12 | 44.4 | 64.8 | 3.10 | 3.04 | 4.28 | 2.00 | 96 |
| Halifax, N.S. | 83 | 30 | 44.4 | 28.3 | 63.8 | 92 | -21 | 7,560 | May 10 | Oct. 12 | 44.4 | 64.8 | 3.10 | 3.04 | 4.28 | 2.00 | 96 |
| Sydney, N.S. | 197 | 30 | 42.6 | 24.7 | 63.0 | 98 | -23 | 8,220 | May 20 | Sept. 23 | 50.61 | 96.6 | 4.86 | 3.77 | 2.98 | 5.22 | 138 |
| St. John's, N.B. | 112 | 26 | 39.0 | 72.4 | 66.1 | 102 | -43 | 9,200 | May 21 | Sept. 28 | 36.33 | 84.2 | 2.59 | 2.78 | 3.10 | 3.86 | 50 |
| Chatham, N.B. | 104 | 26 | 39.0 | 72.4 | 66.1 | 102 | -43 | 9,200 | May 21 | Sept. 28 | 36.33 | 84.2 | 2.59 | 2.78 | 3.10 | 3.86 | 50 |
| Fredericton, N.B. | 112 | 26 | 39.0 | 72.4 | 66.1 | 102 | -43 | 9,200 | May 21 | Sept. 28 | 36.33 | 84.2 | 2.59 | 2.78 | 3.10 | 3.86 | 50 |
| Saint John, N.B. | 119 | 30 | 42.0 | 19.8 | 61.8 | 93 | -21 | 8,830 | May 4 | Oct. 16 | 47.69 | 83.0 | 4.55 | 3.62 | 3.28 | 4.77 | 108 |
| Arvida, Que. | 375 | 19 | 36.6 | 4 | 65.2 | 95 | -42 | 10,440 | May 20 | Sept. 19 | 38.77 | 115.7 | 2.87 | 2.53 | 4.17 | 3.45 | 70 |
| Montréal, Que. | 498 | 30 | 41.6 | 13.2 | 66.6 | 99 | -48 | 8,670 | May 31 | Sept. 10 | 40.11 | 96.5 | 3.37 | 3.07 | 4.08 | 3.40 | 150 |
| Quebec, Que. | 187 | 30 | 43.7 | 15.4 | 70.4 | 97 | -29 | 8,130 | Apr. 28 | Oct. 17 | 41.80 | 100.8 | 3.54 | 3.31 | 3.97 | 3.40 | 59 |
| Windsor, Ont. | 644 | 30 | 36.8 | 7.6 | 63.2 | 91 | -38 | 10,640 | June 4 | Sept. 7 | 27.62 | 68.8 | 1.67 | 1.81 | 3.26 | 2.52 | 53 |
| Kopelkasig, Ont. | 752 | 13 | 33.3 | -0.1 | 63.2 | 101 | -53 | 11,750 | June 14 | Sept. 5 | 34.51 | 124.0 | 2.40 | 2.03 | 3.63 | 2.56 | 93 |
| Ottawa, Ont. | 347 | 20 | 41.6 | 12.0 | 68.6 | 102 | -35 | 8,740 | May 11 | Oct. 29 | 34.89 | 80.5 | 2.67 | 2.62 | 3.53 | 2.70 | 47 |
| St. Catharines, Ont. | 340 | 20 | 48.4 | 26.7 | 71.7 | 104 | -12 | 6,670 | May 5 | Oct. 21 | 30.72 | 47.1 | 2.54 | 2.47 | 2.36 | 2.38 | 132 |
| Toronto, Ont. | 379 | 30 | 47.0 | 24.5 | 70.8 | 105 | -22 | 7,008 | May 3 | Oct. 15 | 30.94 | 54.6 | 2.72 | 2.55 | 3.23 | 2.29 | 47 |
| Churchill, Man. | 43 | 21 | 18.8 | -16.4 | 55.0 | 90 | -50 | 16,910 | June 28 | Aug. 30 | 14.41 | 45.1 | 0.39 | 1.21 | 2.51 | 1.53 | 51 |
| The Pas, Man. | 890 | 29 | 31.4 | -6.2 | 64.9 | 100 | -54 | 12,460 | May 28 | Sept. 9 | 16.98 | 48.1 | 0.77 | 0.90 | 2.72 | 1.42 | 102 |
| Winnipeg, Man. | 786 | 30 | 36.6 | 0.6 | 68.4 | 108 | -43 | 10,638 | May 27 | Sept. 15 | 19.72 | 49.4 | 0.93 | 1.36 | 2.93 | 1.44 | 53 |
| Prince Albert, Sask. | 1,414 | 30 | 34.0 | 1.3 | 65.3 | 103 | -56 | 11,430 | May 30 | Sept. 10 | 15.60 | 45.1 | 0.65 | 0.81 | 2.15 | 0.96 | 54 |
| Regina, Sask. | 1,884 | 30 | 36.7 | 2.3 | 66.6 | 110 | -54 | 10,770 | May 30 | Sept. 6 | 17.39 | 68.3 | 1.19 | 0.97 | 2.31 | 0.85 | 106 |
| Beaverlodge, Alta. | 2,500 | 30 | 36.1 | 9.7 | 60.2 | 98 | -53 | 10,580 | June 30 | Sept. 6 | 17.47 | 57.0 | 0.55 | 1.26 | 2.41 | 0.89 | 127 |
| Calgary, Alta. | 3,540 | 30 | 39.0 | 15.8 | 62.9 | 97 | -46 | 9,320 | May 29 | Sept. 6 | 17.63 | 52.9 | 0.90 | 1.11 | 3.11 | 0.84 | 101 |
| Edmonton, Alta. | 2,219 | 30 | 36.8 | 7.7 | 62.9 | 99 | -51 | 10,320 | May 29 | Sept. 6 | 17.63 | 52.9 | 0.90 | 1.11 | 3.11 | 0.84 | 101 |
| Medicine Hat, Alta. | 2,365 | 30 | 42.2 | 13.7 | 70.2 | 106 | -49 | 8,690 | May 13 | Sept. 18 | 13.55 | 41.6 | 0.72 | 0.99 | 1.38 | 0.72 | 100 |
| Cranbrook, B.C. | 3,013 | 30 | 41.2 | 15.6 | 64.4 | 102 | -42 | 8,760 | June 10 | Aug. 27 | 14.46 | 54.5 | 1.58 | 0.61 | 0.85 | 1.11 | 41 |
| Nelson, B.C. | 2,035 | 30 | 43.8 | 24.7 | 68.7 | 103 | -17 | 7,180 | May 10 | Oct. 2 | 28.52 | 90.0 | 3.48 | 1.59 | 1.15 | 2.85 | 32 |
| Penticton, B.C. | 2,231 | 30 | 44.0 | 16.0 | 69.6 | 105 | -16 | 6,410 | May 17 | Oct. 3 | 31.50 | 20.4 | 0.98 | 0.83 | 0.78 | 0.98 | 29 |
| Prince George, B.C. | 2,273 | 30 | 38.9 | 1.4 | 59.6 | 102 | -58 | 9,720 | June 17 | Dec. 7 | 22.17 | 66.6 | 1.85 | 0.96 | 2.14 | 2.12 | 143 |
| Victoria, B.C. | 228 | 30 | 50.2 | 39.2 | 60.0 | 95 | 6 | 5,410 | Feb. 28 | Aug. 7 | 26.18 | 10.1 | 4.05 | 1.17 | 0.49 | 2.90 | 5 |
| Dawson, Y.T. | 1,062 | 30 | 23.8 | -16.0 | 59.8 | 95 | -73 | 15,040 | June 4 | Aug. 18 | 13.99 | 52.5 | 0.88 | 1.63 | 1.72 | 1.07 | 53 |
| Yukon, N.W.T. | 13 | 19 | 11.7 | -49.0 | 87 | 87 | -58 | 19,410 | June 28 | Aug. 18 | 10.87 | 55.5 | 0.60 | 0.67 | 1.52 | 1.23 | 103 |
| Fort Good Hope, N.W.T. | 214 | 29 | 17.8 | -21.0 | 59.8 | 94 | -69 | 17,200 | June 1 | Aug. 11 | 12.18 | 57.3 | 0.72 | 0.50 | 1.55 | 1.20 | 106 |

2.—Temperature Data for 35 Weather Stations by Month 1956

| Station | Monthly Mean Temperature (Fahrenheit) | | | | | | | | | | | | Annual Temperature Extremes | |
|----------------------------|---|-------|------|------|------|------|------|------|-------|------|------|-------|-----------------------------------|------|
| | Temp- erature Differ- ence from Normal | | | | | | | | | | | | | |
| | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | | |
| Gander, Nfld. | 29.8 | 21.2 | 22.0 | 35.2 | 41.6 | 53.2 | 60.6 | 59.5 | 52.4 | 44.9 | 37.6 | 21.2 | 39.9 | 83 |
| St. John's (Torbay), Nfld. | 31.6 | 24.5 | 24.6 | 35.6 | 40.8 | 51.4 | 56.8 | 58.0 | 51.2 | 44.6 | 40.0 | 26.7 | 40.5 | -3 |
| Goose Bay, Nfld. | 15.6 | 4.3 | 12.0 | 30.8 | 35.1 | 47.0 | 59.3 | 56.4 | 48.9 | 40.7 | 23.9 | -1.2 | 31.1 | 79 |
| Charlottetown, P.E.I. | 28.1 | 19.1 | 22.2 | 34.8 | 43.8 | 57.4 | 62.1 | 61.8 | 55.0 | 47.9 | 38.1 | 24.6 | 41.2 | -26 |
| Digby, N.S. | 32.6 | 26.9 | 29.2 | 40.2 | 45.4 | 58.6 | 62.9 | 63.1 | 56.8 | 50.6 | 43.7 | 33.6 | 45.4 | -7 |
| Halifax, N.S. | 33.4 | 26.8 | 28.5 | 39.7 | 46.3 | 57.4 | 64.3 | 63.6 | 57.8 | 51.8 | 44.8 | 32.1 | 45.5 | 1 |
| Sydney, N.S. | 32.2 | 22.5 | 23.6 | 35.6 | 42.3 | 56.0 | 61.5 | 61.2 | 55.0 | 48.4 | 41.0 | 29.2 | 42.4 | -5 |
| Chatham, N.B. | 26.2 | 16.8 | 22.8 | 37.0 | 45.4 | 59.6 | 63.7 | 61.6 | 53.7 | 46.6 | 34.0 | 18.1 | 40.5 | -12 |
| Fredericton, N.B. | 25.8 | 17.6 | 21.6 | 38.6 | 46.2 | 60.9 | 63.8 | 62.2 | 53.4 | 45.8 | 35.0 | 20.8 | 41.0 | -17 |
| Saint John, N.B. | 27.4 | 20.6 | 23.4 | 38.2 | 44.9 | 55.8 | 60.3 | 61.1 | 53.6 | 47.4 | 38.0 | 25.5 | 41.4 | -6 |
| Arvida, Que. | 14.9 | 10.2 | 15.0 | 36.1 | 43.6 | 59.2 | 61.0 | 59.8 | 50.1 | 45.3 | 29.9 | 8.4 | 36.1 | 90 |
| Lennoxville, Que. | 17.0 | 16.6 | 18.8 | 38.4 | 46.6 | 62.0 | 63.3 | 62.8 | 53.1 | 47.4 | 34.7 | 21.0 | 40.1 | -35 |
| Montreal, Que. | 21.1 | 21.4 | 24.2 | 41.6 | 51.1 | 63.4 | 67.7 | 68.4 | 57.2 | 51.8 | 37.4 | 23.0 | 44.2 | 91 |
| Fort William, Ont. | 11.9 | 10.1 | 17.3 | 33.1 | 34.7 | 50.5 | 62.0 | 59.3 | 48.6 | 46.8 | 27.9 | 10.8 | 36.1 | -11 |
| Kapuskasing, Ont. | 4.0 | 8.0 | 10.8 | 30.8 | 39.7 | 58.9 | 58.6 | 58.5 | 46.0 | 46.2 | 25.4 | 2.0 | 32.4 | -28 |
| Ottawa, Ont. | 16.8 | 17.5 | 21.9 | 38.9 | 49.4 | 64.2 | 65.2 | 65.4 | 54.4 | 48.8 | 35.0 | 20.2 | 41.5 | -33 |
| St. Catharines, Ont. | 25.2 | 28.2 | 31.0 | 41.9 | 51.9 | 65.4 | 68.0 | 68.2 | 57.7 | 52.5 | 40.8 | 34.2 | 47.1 | 94 |
| Toronto, Ont. | 24.9 | 28.0 | 30.5 | 41.9 | 52.0 | 66.4 | 68.5 | 68.4 | 58.0 | 53.8 | 41.4 | 32.0 | 47.2 | 93 |
| Churchill, Man. | -10.7 | -15.0 | -2.7 | 14.0 | 22.0 | 41.1 | 56.2 | 52.8 | 38.4 | 29.0 | 8.2 | -15.7 | 18.1 | 95 |
| The Pass, Man. | -7.6 | -2.0 | 8.0 | 25.2 | 43.2 | 62.4 | 63.0 | 61.6 | 45.8 | 38.9 | 19.8 | -7.6 | 29.8 | -43 |
| Winnipeg, Man. | 1.8 | 2.2 | 13.0 | 38.4 | 48.4 | 68.4 | 65.0 | 65.4 | 51.0 | 46.6 | 27.2 | -7.4 | 35.6 | -42 |
| Prince Albert, Sask. | -6.1 | -2.7 | 10.0 | 28.3 | 50.6 | 61.9 | 62.6 | 61.0 | 47.4 | 39.0 | 23.4 | 3.2 | 31.6 | 91 |
| Regina, Sask. | 0.8 | 2.0 | 13.8 | 30.8 | 52.0 | 64.9 | 68.3 | 63.6 | 51.7 | 40.8 | 25.2 | 8.8 | 34.8 | -47 |
| Beaverlodge, Alta. | -3.7 | 8.5 | 20.9 | 36.2 | 53.4 | 64.7 | 61.0 | 59.6 | 48.4 | 34.5 | 35.1 | 12.9 | 35.1 | -31 |
| Calgary, Alta. | 5.8 | 10.8 | 24.0 | 34.9 | 50.6 | 56.4 | 61.8 | 59.5 | 50.8 | 37.6 | 34.8 | 19.8 | 37.2 | -37 |
| Edmonton, Alta. | -1.6 | 8.6 | 21.1 | 36.1 | 55.4 | 59.8 | 63.8 | 62.0 | 50.8 | 39.5 | 34.2 | 13.8 | 37.0 | 98 |
| Medicine Hat, Alta. | 6.8 | 9.2 | 25.6 | 39.4 | 54.9 | 62.8 | 67.5 | 64.9 | 56.0 | 45.4 | 34.9 | 20.4 | 40.6 | -30 |
| Crabbrook, B.C. | 18.5 | 16.2 | 29.9 | 42.9 | 53.0 | 57.1 | 65.2 | 63.3 | 55.3 | 42.3 | 26.8 | 21.0 | 41.0 | -0.2 |
| Nelson, B.C. | 29.1 | 24.5 | 34.5 | 46.4 | 56.2 | 58.5 | 67.8 | 67.3 | 58.2 | 44.9 | 33.2 | 31.0 | 46.0 | 95 |
| Penticton, B.C. | 30.2 | 25.1 | 36.7 | 49.5 | 58.5 | 60.8 | 69.6 | 68.2 | 59.3 | 47.4 | 35.6 | 31.6 | 47.7 | -6 |
| Prince George, B.C. | 3.0 | 9.9 | 26.0 | 39.0 | 50.2 | 53.1 | 59.4 | 58.2 | 49.1 | 36.4 | 28.2 | 18.7 | 35.9 | -3.0 |
| Victoria, B.C. | 39.3 | 36.9 | 41.6 | 50.2 | 56.0 | 55.1 | 61.0 | 59.6 | 56.3 | 49.6 | 43.8 | 41.0 | 49.2 | -1.0 |
| Dawson, Y.T. | -27.5 | -17.2 | 0.5 | 29.4 | 46.8 | 55.2 | 59.9 | 55.2 | 40.4 | 19.0 | 1.6 | -29.0 | 19.5 | 88 |
| Copernine, N.W.T. | -17.8 | -26.6 | 1.6 | 16.2 | 38.7 | 50.2 | 43.6 | 33.8 | 13.5 | -4.6 | 17.3 | -47.0 | 9.7 | 83 |
| Fort Good Hope, N.W.T. | -28.8 | -26.2 | -2.5 | 17.9 | 38.4 | 53.9 | 58.8 | 49.9 | 38.4 | 12.0 | -5.9 | -24.3 | 15.1 | -2.7 |

3.—Precipitation Data for 35 Weather Stations by Month 1956

| Station | Monthly Precipitation (inches) | | | | | | | | | | | Total Precip- itation (inches) | Total Inches Precip- itation Differ- ence from Normal for Year | 1955-56 Snowfall (inches) | |
|----------------------------|-----------------------------------|------|------|------|------|------|------|------|-------|------|------|---|---|---------------------------------|------|
| | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | | | | Dec. |
| | | | | | | | | | | | | | | | |
| Gander, Nfld. | 4.28 | 3.78 | 3.90 | 4.26 | 1.75 | 4.69 | 2.95 | 1.95 | 1.57 | 1.47 | 4.81 | 3.36 | -0.73 | 199.5 | |
| St. John's (Torrey), Nfld. | 4.99 | 6.86 | 5.08 | 7.84 | 6.72 | 3.23 | 5.31 | 5.15 | 7.51 | 3.66 | 3.19 | 4.14 | 9.29 | 226.7 | |
| Goose Bay, Nfld. | 6.26 | 2.34 | 2.98 | 2.51 | 1.57 | 3.87 | 2.87 | 3.04 | 2.66 | 2.63 | 3.15 | 3.21 | 8.11 | 219.9 | |
| Charlottetown, P.E.I. | 9.07 | 3.70 | 4.28 | 3.67 | 7.34 | 3.44 | 2.92 | 1.69 | 2.41 | 1.17 | 4.80 | 4.03 | 1.78 | 164.2 | |
| Digby, N.S. | 10.39 | 3.52 | 5.30 | 3.80 | 7.34 | 3.99 | 3.27 | 4.45 | 5.35 | 1.70 | 4.13 | 4.31 | 57.35 | 100.0 | |
| Halifax, N.S. | 8.99 | 5.50 | 4.88 | 4.38 | 5.78 | 1.97 | 3.00 | 2.33 | 2.06 | 1.75 | 5.34 | 3.70 | -3.69 | 142.7 | |
| Halifax, N.S. | 8.99 | 5.50 | 4.88 | 4.38 | 5.78 | 1.97 | 3.00 | 2.33 | 2.06 | 1.75 | 5.34 | 3.70 | -3.69 | 142.7 | |
| Sydney, N.S. | 9.76 | 5.41 | 7.54 | 4.36 | 5.98 | 4.11 | 2.44 | 3.62 | 1.37 | 1.49 | 7.26 | 4.53 | 6.75 | 195.9 | |
| Sydney, N.S. | 9.76 | 5.41 | 7.54 | 4.36 | 5.98 | 4.11 | 2.44 | 3.62 | 1.37 | 1.49 | 7.26 | 4.53 | 6.75 | 195.9 | |
| Chatham, N.B. | 11.27 | 2.63 | 2.81 | 3.75 | 2.43 | 9.17 | 2.23 | 3.78 | 1.82 | 1.84 | 3.99 | 4.45 | 11.12 | 123.2 | |
| Chatham, N.B. | 11.27 | 2.63 | 2.81 | 3.75 | 2.43 | 9.17 | 2.23 | 3.78 | 1.82 | 1.84 | 3.99 | 4.45 | 11.12 | 123.2 | |
| Fredericton, N.B. | 7.00 | 4.52 | 5.32 | 4.50 | 4.91 | 2.47 | 3.13 | 2.54 | 3.97 | 2.10 | 5.13 | 5.72 | 0.84 | 110.1 | |
| Fredericton, N.B. | 7.00 | 4.52 | 5.32 | 4.50 | 4.91 | 2.47 | 3.13 | 2.54 | 3.97 | 2.10 | 5.13 | 5.72 | 0.84 | 110.1 | |
| Saint John, N.B. | 7.26 | 4.52 | 5.32 | 4.50 | 4.91 | 2.47 | 3.13 | 2.54 | 3.97 | 2.10 | 5.13 | 5.72 | 4.43 | 129.3 | |
| Saint John, N.B. | 7.26 | 4.52 | 5.32 | 4.50 | 4.91 | 2.47 | 3.13 | 2.54 | 3.97 | 2.10 | 5.13 | 5.72 | 4.43 | 129.3 | |
| Arvida, Que. | 2.05 | 2.52 | 1.40 | 1.89 | 3.03 | 2.88 | 4.77 | 3.91 | 2.75 | 2.10 | 1.99 | 3.35 | -6.13 | 103.8 | |
| Arvida, Que. | 2.05 | 2.52 | 1.40 | 1.89 | 3.03 | 2.88 | 4.77 | 3.91 | 2.75 | 2.10 | 1.99 | 3.35 | -6.13 | 103.8 | |
| Lennoxville, Que. | 2.58 | 2.26 | 2.75 | 3.07 | 3.49 | 2.38 | 4.33 | 3.58 | 2.77 | 2.41 | 2.51 | 3.39 | -3.57 | 111.9 | |
| Lennoxville, Que. | 2.58 | 2.26 | 2.75 | 3.07 | 3.49 | 2.38 | 4.33 | 3.58 | 2.77 | 2.41 | 2.51 | 3.39 | -3.57 | 111.9 | |
| Montreal, Que. | 1.42 | 3.04 | 2.89 | 3.68 | 4.03 | 2.87 | 4.71 | 3.01 | 2.18 | 1.41 | 1.59 | 2.32 | -3.94 | 83.0 | |
| Montreal, Que. | 1.42 | 3.04 | 2.89 | 3.68 | 4.03 | 2.87 | 4.71 | 3.01 | 2.18 | 1.41 | 1.59 | 2.32 | -3.94 | 83.0 | |
| Fort William, Ont. | 5.64 | 1.11 | 2.26 | 2.49 | 3.54 | 2.52 | 2.98 | 1.52 | 3.63 | 0.60 | 3.31 | 3.35 | -5.13 | 144.9 | |
| Fort William, Ont. | 5.64 | 1.11 | 2.26 | 2.49 | 3.54 | 2.52 | 2.98 | 1.52 | 3.63 | 0.60 | 3.31 | 3.35 | -5.13 | 144.9 | |
| Kapuskasing, Ont. | 0.92 | 1.49 | 0.87 | 2.29 | 4.53 | 3.11 | 2.78 | 2.29 | 3.63 | 1.57 | 3.29 | 2.64 | -5.10 | 147.6 | |
| Kapuskasing, Ont. | 0.92 | 1.49 | 0.87 | 2.29 | 4.53 | 3.11 | 2.78 | 2.29 | 3.63 | 1.57 | 3.29 | 2.64 | -5.10 | 147.6 | |
| Ottawa, Ont. | 1.56 | 2.29 | 2.17 | 4.77 | 4.24 | 2.54 | 2.97 | 5.09 | 0.90 | 1.24 | 1.92 | 1.82 | -3.38 | 51.6 | |
| Ottawa, Ont. | 1.56 | 2.29 | 2.17 | 4.77 | 4.24 | 2.54 | 2.97 | 5.09 | 0.90 | 1.24 | 1.92 | 1.82 | -3.38 | 51.6 | |
| St. Catharines, Ont. | 1.78 | 2.58 | 3.67 | 3.65 | 5.20 | 1.02 | 5.00 | 6.00 | 2.78 | 1.04 | 1.36 | 2.44 | -5.80 | 51.6 | |
| St. Catharines, Ont. | 1.78 | 2.58 | 3.67 | 3.65 | 5.20 | 1.02 | 5.00 | 6.00 | 2.78 | 1.04 | 1.36 | 2.44 | -5.80 | 51.6 | |
| Toronto, Ont. | 1.88 | 2.05 | 3.89 | 3.12 | 4.70 | 1.63 | 3.32 | 5.94 | 1.86 | 1.11 | 1.60 | 2.51 | -2.67 | 67.6 | |
| Toronto, Ont. | 1.88 | 2.05 | 3.89 | 3.12 | 4.70 | 1.63 | 3.32 | 5.94 | 1.86 | 1.11 | 1.60 | 2.51 | -2.67 | 67.6 | |
| Churchill, Man. | 0.48 | 0.50 | 0.38 | 1.33 | 1.14 | 2.24 | 0.28 | 1.97 | 1.66 | 1.40 | 1.62 | 0.62 | -0.79 | 85.2 | |
| Churchill, Man. | 0.48 | 0.50 | 0.38 | 1.33 | 1.14 | 2.24 | 0.28 | 1.97 | 1.66 | 1.40 | 1.62 | 0.62 | -0.79 | 85.2 | |
| The Pas, Man. | 1.36 | 1.24 | 1.56 | 0.82 | 1.34 | 1.87 | 1.71 | 1.08 | 1.60 | 1.16 | 1.59 | 0.84 | -0.81 | 93.3 | |
| The Pas, Man. | 1.36 | 1.24 | 1.56 | 0.82 | 1.34 | 1.87 | 1.71 | 1.08 | 1.60 | 1.16 | 1.59 | 0.84 | -0.81 | 93.3 | |
| Winnipeg, Man. | 1.73 | 1.07 | 1.56 | 0.25 | 1.98 | 2.23 | 3.33 | 5.39 | 0.78 | 2.01 | 1.93 | 1.51 | 4.05 | 99.5 | |
| Winnipeg, Man. | 1.73 | 1.07 | 1.56 | 0.25 | 1.98 | 2.23 | 3.33 | 5.39 | 0.78 | 2.01 | 1.93 | 1.51 | 4.05 | 99.5 | |
| Prince Albert, Sask. | 0.87 | 0.97 | 1.39 | 0.76 | 1.53 | 3.00 | 2.18 | 0.90 | 1.26 | 0.30 | 0.56 | 0.73 | -2.37 | 70.5 | |
| Prince Albert, Sask. | 0.87 | 0.97 | 1.39 | 0.76 | 1.53 | 3.00 | 2.18 | 0.90 | 1.26 | 0.30 | 0.56 | 0.73 | -2.37 | 70.5 | |
| Regina, Sask. | 1.44 | 0.61 | 2.00 | 0.76 | 1.53 | 5.13 | 3.46 | 1.12 | 0.85 | 1.18 | 0.29 | 1.42 | 4.70 | 76.5 | |
| Regina, Sask. | 1.44 | 0.61 | 2.00 | 0.76 | 1.53 | 5.13 | 3.46 | 1.12 | 0.85 | 1.18 | 0.29 | 1.42 | 4.70 | 76.5 | |
| Beaverlodge, Alta. | 1.03 | 0.64 | 1.46 | 0.11 | 1.34 | 4.76 | 2.13 | 1.79 | 1.05 | 0.84 | 1.11 | 1.99 | -0.07 | 79.0 | |
| Beaverlodge, Alta. | 1.03 | 0.64 | 1.46 | 0.11 | 1.34 | 4.76 | 2.13 | 1.79 | 1.05 | 0.84 | 1.11 | 1.99 | -0.07 | 79.0 | |
| Calgary, Alta. | 1.36 | 0.44 | 0.98 | 1.14 | 1.19 | 5.14 | 1.52 | 3.12 | 0.83 | 0.83 | 0.48 | 0.84 | 0.40 | 69.5 | |
| Calgary, Alta. | 1.36 | 0.44 | 0.98 | 1.14 | 1.19 | 5.14 | 1.52 | 3.12 | 0.83 | 0.83 | 0.48 | 0.84 | 0.40 | 69.5 | |
| Edmonton, Alta. | 1.11 | 1.20 | 1.20 | 0.64 | 0.28 | 5.21 | 2.75 | 4.13 | 1.38 | 0.50 | 0.46 | 1.27 | 2.50 | 73.4 | |
| Edmonton, Alta. | 1.11 | 1.20 | 1.20 | 0.64 | 0.28 | 5.21 | 2.75 | 4.13 | 1.38 | 0.50 | 0.46 | 1.27 | 2.50 | 73.4 | |
| Medicine Hat, Alta. | 1.29 | 1.27 | 1.16 | 0.43 | 1.72 | 3.34 | 2.75 | 3.00 | 1.30 | 0.72 | 0.21 | 0.79 | 17.82 | 57.4 | |
| Medicine Hat, Alta. | 1.29 | 1.27 | 1.16 | 0.43 | 1.72 | 3.34 | 2.75 | 3.00 | 1.30 | 0.72 | 0.21 | 0.79 | 17.82 | 57.4 | |
| Granbrook, B.C. | 1.98 | 1.59 | 1.69 | 0.93 | 0.88 | 1.04 | 1.61 | 0.54 | 0.32 | 1.23 | 0.30 | 1.85 | -0.50 | 94.2 | |
| Granbrook, B.C. | 1.98 | 1.59 | 1.69 | 0.93 | 0.88 | 1.04 | 1.61 | 0.54 | 0.32 | 1.23 | 0.30 | 1.85 | -0.50 | 94.2 | |
| Nelson, B.C. | 3.86 | 3.53 | 3.17 | 0.78 | 1.17 | 3.03 | 1.05 | 0.72 | 0.74 | 2.63 | 0.64 | 3.98 | -3.22 | 125.1 | |
| Nelson, B.C. | 3.86 | 3.53 | 3.17 | 0.78 | 1.17 | 3.03 | 1.05 | 0.72 | 0.74 | 2.63 | 0.64 | 3.98 | -3.22 | 125.1 | |
| Penticton, B.C. | 2.46 | 0.74 | 0.77 | 0.02 | 0.18 | 2.00 | 1.29 | 0.69 | 0.50 | 0.66 | 0.23 | 0.47 | -1.49 | 44.7 | |
| Penticton, B.C. | 2.46 | 0.74 | 0.77 | 0.02 | 0.18 | 2.00 | 1.29 | 0.69 | 0.50 | 0.66 | 0.23 | 0.47 | -1.49 | 44.7 | |
| Prince George, B.C. | 1.73 | 3.46 | 1.77 | 0.80 | 0.39 | 3.20 | 1.97 | 2.31 | 1.24 | 1.91 | 1.59 | 3.43 | 1.63 | 132.6 | |
| Prince George, B.C. | 1.73 | 3.46 | 1.77 | 0.80 | 0.39 | 3.20 | 1.97 | 2.31 | 1.24 | 1.91 | 1.59 | 3.43 | 1.63 | 132.6 | |
| Victoria, B.C. | 2.89 | 2.18 | 2.69 | 0.09 | 0.26 | 1.70 | 0.18 | 1.16 | 3.05 | 5.28 | 2.16 | 9.72 | 5.18 | 33.8 | |
| Victoria, B.C. | 2.89 | 2.18 | 2.69 | 0.09 | 0.26 | 1.70 | 0.18 | 1.16 | 3.05 | 5.28 | 2.16 | 9.72 | 5.18 | 33.8 | |
| Dawson, Y.T. | 0.31 | 0.39 | 0.16 | 0.11 | 0.77 | 1.01 | 3.92 | 2.27 | 0.88 | 1.78 | 0.99 | 0.38 | -0.97 | 21.3 | |
| Dawson, Y.T. | 0.31 | 0.39 | 0.16 | 0.11 | 0.77 | 1.01 | 3.92 | 2.27 | 0.88 | 1.78 | 0.99 | 0.38 | -0.97 | 21.3 | |
| Copernine, N.W.T. | 0.36 | 0.04 | 0.26 | -- | 0.06 | 0.84 | 1.80 | 2.90 | 0.93 | 0.39 | 0.19 | 0.21 | -0.84 | 20.4 | |
| Copernine, N.W.T. | 0.36 | 0.04 | 0.26 | -- | 0.06 | 0.84 | 1.80 | 2.90 | 0.93 | 0.39 | 0.19 | 0.21 | -0.84 | 20.4 | |
| Fort Good Hope, N.W.T. | 1.17 | 0.51 | 0.22 | -- | 0.70 | 1.03 | 4.08 | 2.45 | 1.03 | 0.88 | 1.84 | 0.62 | 2.35 | 39.2 | |
| Fort Good Hope, N.W.T. | 1.17 | 0.51 | 0.22 | -- | 0.70 | 1.03 | 4.08 | 2.45 | 1.03 | 0.88 | 1.84 | 0.62 | 2.35 | 39.2 | |

* Total rainfall plus one-tenth of the depth of newly fallen snow (see p. 30).

Section 2.—Standard Time and Time Zones

Standard time which was adopted at a World Conference held at Washington, D.C. in 1884, sets the number of time zones in the world at 24, each zone extending over one twenty-fourth of the surface of the earth and including all the territory between two meridians 15° longitude apart. The basis of world time is Greenwich time and all other time zones are a definite number of hours behind Greenwich.

Canada has seven time zones, the most easterly being Newfoundland standard time three hours and thirty minutes behind Greenwich time. In the west, Pacific standard time, used throughout British Columbia and part of the Northwest Territories, is eight hours behind Greenwich, and Yukon standard time, used throughout the Yukon Territory, is nine hours behind Greenwich. Some municipalities adopt the time used by the local railways which, in certain cases, differs from the standard. There are also villages that adopt such time as seems best to suit their convenience but in general the legal boundaries of the different time zones are actually in use.

Daylight Saving Time.—For some years before World War I there was active propaganda, particularly in the cities, for the use during the summer months of an earlier time usually referred to as 'daylight saving time', one hour ahead of standard time. It was considered from the economic as well as from the health point of view that people in industrial towns and cities would gain by having longer periods of sunlight at their disposal for recreation. Canada adopted daylight saving time in 1918 but the Canadian Act lapsed at the end of that year. Since that date however most cities and towns have adopted daylight saving for varying periods in the summer months.

Legal Authority for the Time Zones.—Most of the regulations made in Canada concerning standard time have been passed by the provincial legislatures and the Northwest Territories Council. Legislation, besides determining the boundaries of zones, regulates such matters as the times of coming into effect or expiration of Acts, ordinances, contracts and agreements, times of opening and closing registration offices, law courts, post offices and other public offices, times of open or close seasons for hunting and fishing, and times of opening and closing business houses and places of amusement.

PART IV.—GEOPHYSICS AND ASTRONOMY

Section 1.—Geophysics

Geophysics began with the observations made by early navigators of the weather, ocean tides and the lodestone. These studies gradually developed into modern meteorology, physical oceanography and terrestrial magnetism. To them were added other physical studies of the earth so that geophysics now includes also seismology—the study of earthquakes; hydrology—the study of waters in rivers, lakes, glaciers and underground (but not in the oceans); volcanology—the study of volcanoes and the earth's heat; tectonophysics—the study of the forces which build mountains and slowly cause changes in level of land and sea; the study of the earth's gravity; and several minor studies such as the determination of the ages of ancient rocks and minerals from their content of radioactive elements. In addition magnetic, electrical, gravitational, seismic and radioactive methods of geophysical prospecting are used to direct drilling in almost all the searches going on in Canada for oil and gas. Both airborne and ground devices are widely used by mining companies to prospect for metals.

The Dominion Observatory and the Geological Survey at Ottawa and the Physics Department of the University of Toronto are carrying out major programs of geophysical research. Several other universities across the country and various provincial governments are also doing geophysical work and the major oil companies as well as numerous geophysical prospecting establishments have developed geophysical techniques as their most effective approach to the problem of finding oil fields and mineral deposits. A detailed study of these activities is given in the 1956 Year Book, pp. 42-55.

Of particular current interest is the organization of an international program of scientific work to be conducted during 1957 and 1958, known as the International Geophysical Year, which is designed to make a concentrated study of the physics of the earth and its atmosphere. This program and Canada's part in it is described in the following special article.

THE INTERNATIONAL GEOPHYSICAL YEAR*

Despite the fact that the earth is the only body in the universe which can be studied closely there is a great deal yet to be known about it. Man's position on the earth limits direct contact to a very thin layer on its surface and a thin layer in the lower atmosphere but knowledge of its structure and composition from the very hot centre to the outer limits of the atmosphere is requisite. To the geophysicist the earth is not solid firmament but a potent mass far from a condition of permanent stability. The crust folds and mountain ranges are formed then erode away by the action of a very dynamic atmosphere. Ice ages come and go and considerable masses of water are stored in the great glaciers and ice caps. Fortunately the more violent changes are slow in the life of man but the less violent such as earthquakes, storms in the atmosphere, and tides in the ocean are commonly experienced. Even these involve enormous energy changes.

Many of the things to be learned require synoptic or simultaneous measurements over the surface of the earth and these can be obtained only by international co-operation. The International Geophysical Year organization is merely an attempt by scientists to concentrate for a period of eighteen months starting July 1, 1957, on the type of measurements which, when taken at one epoch over all the world, can answer some of the questions about the structure and behaviour of the earth and its atmosphere.

For the sake of convenience and because of the natural division of geophysics into specialized studies, the program for the IGY is divided into fourteen disciplines:—

- | | |
|------------------------|---|
| 1. World days | 8. Latitudes and Longitudes |
| 2. Meteorology | 9. Glaciology |
| 3. Geomagnetism | 10. Oceanography |
| 4. Aurora and Air Glow | 11. Rockets and Satellites |
| 5. Ionosphere Physics | 12. Seismology |
| 6. Solar Activity | 13. Gravity |
| 7. Cosmic Rays | 14. Radioactivity in the Earth's Atmosphere |

World days is not correctly called a discipline but, since the selection of days on which special measurements are to be taken required an international sub-committee parallel to those on other subjects, it is rightfully listed as important. The reason for selecting world days is that certain important types of measurements particularly in the upper atmosphere are too expensive and too difficult to carry out on a continuous or regular schedule. For instance, a great deal is learned about the upper atmosphere by firing rockets into it or releasing large free balloons carrying instruments to measure such things as temperature, pressure, density, radiation, the state of electrical conductivity, and chemical composition. The data are telemetered to ground stations as the measurements are made because recovery of the equipment is often impossible. The concentration of such expensive experiments into specially selected intervals is part of the plan. Ordinary meteorological stations each day release two radiosonde balloons of a size that will usually reach a height of about 50,000 feet. During selected world meteorological intervals, four or six a day will be released and larger balloons will be used to reach perhaps double that height.

Two kinds of world days have been planned. Those that can be selected in advance include regular world days (four per lunar month), eclipses, periods of unusual meteor activity, and world meteorological intervals (periods of ten days each quarter). The second type cannot be selected in advance and will be called on short notice when unusual solar activity causes effects in the upper atmosphere of particular interest. In some cases

* Prepared by Dr. D. C. Rose, Chairman of the Co-ordinating Committee, Canadian IGY Program, National Research Council, Ottawa.

periods of high probability of magnetic or ionospheric storms can be predicted by close observation of the sun. To watch it continuously, observatories scattered around the world must be in regular communication with the predicting and world-warning centre at Fort Belvoir, near Washington, D.C. The organizing of communications to the predicting centre and from it to all the stations needing the warning was no small task. When a disturbance is likely, an alert is announced followed by a special world interval of concerted study if the disturbance appears to justify it.

Everyone is familiar with problems in weather forecasting and, despite facetious remarks about the weather man, a knowledge of *Meteorology* is essential to air transport and to many industries. Meteorology is therefore a very dominant discipline in the IGY. The emphasis in the international program is on world-wide circulation of air and on a greater knowledge of the radiation budget or the exchange of energy between the earth and its atmosphere and between the earth and its atmosphere as a unit and the sun and sky. More extensive measurements in polar areas are important. The Canadian program involves enhanced observations at practically all the meteorological stations where balloon-borne radiosondes are sent up daily. The IGY list includes 46 such stations scattered fairly uniformly over all Canadian territory. Special radiation measurements are being taken at about 10 of the 46 stations and a detailed study of Arctic micro-meteorology is being made at Resolute in the far Arctic.

The important features of *Geomagnetism, the Aurora and Air Glow, Ionosphere Physics, and Solar Activity* can be discussed together. Clouds of particles and electromagnetic radiation are shot out in irregular bursts from the sun. The light and heat received from the sun is, on the whole, very steady but when the effects of ultra-violet light, X-rays and these clouds or beams of electrons and ionized atomic particles are examined they are found to be quite variable and the variability follows the well-known eleven-year cycle of sun-spot activity. The period 1957-58 was chosen for the IGY partly because it was expected to coincide with a maximum in solar activity.

Aurora occur more frequently during such periods than when the sun is quiet and abnormal ionospheric conditions are frequent at the same time. The ionosphere consists of reflecting layers of high electrical conductivity at heights between 50 and 200 miles in the atmosphere. It is of great commercial importance because most long-range radio communications depend on the reflection of radio waves from the various layers in the ionosphere. These layers vary in height and in electron density in regular ways with seasonal and diurnal periods, and with changes in solar activity, but superimposed on them are large fluctuations, very high ionospheric winds and the flow of electric currents high up in the atmosphere. The flow of electric currents represented by the motion of charged particles (which also cause the aurora) is influenced strongly by the earth's magnetic field and, in turn, distorts the earth's magnetic field causing the well-known magnetic storms.

An elaborate series of measurements, taken simultaneously, on the earth's magnetic field, on the occurrence, position and type of aurora, and on the ionosphere will give data from which much more may be learned about these phenomena which are important commercially as well as scientifically. To carry out the Canadian share of the observations, stations were established according to a plan to observe the aurora, the geomagnetic field and the ionosphere. The aurora belt or band of maximum frequency is roughly a circle of about 20° co-latitude from the geomagnetic pole. Churchill, Man., is in the centre of this band and a chain of stations north and south from Churchill was chosen. This chain starts at Alert (the most northerly part of Canada about 500 miles from the North Pole) and extends south to Winnipeg. In addition to Alert and Winnipeg, it includes Resolute, Baker Lake, Ennadai Lake, Churchill, Bird, and The Pas. Another chain extends westward and includes Yellowknife, N.W.T., Meanook, Alta., and Victoria, B.C. Saskatoon, Sask., is also an important centre for the measurement of these upper-atmosphere phenomena.



Cosmic Rays, the seventh discipline, is interesting because the energetic particles known as cosmic rays come mostly from interstellar space but also in occasional bursts from the sun. They are deflected by the earth's magnetic field and apparently by clouds of conducting gas at distances from the earth probably within the range of the solar system.

Latitude and Longitude studies deal with the motions of the earth and its exact size and shape. The exact position of the Poles and the rate of rotation vary slightly and a study of these is important. New techniques for astronomical position-fixing make it possible to secure more accurate dimensions of the earth.

Glaciology and Oceanography deal with the great areas of water storage on the earth. The existence of glaciers and the currents in oceans have profound effects on climates. The balance between water storage in ice caps and glaciers and in the oceans is quite critical and a change in this balance is one of the important slowly varying physical features of the planet. The Canadian program in glaciology includes an expedition to northern Ellesmere Island where the ice cap will be studied, an expedition to the Salmon Glacier in British Columbia and a snow and ice survey as widely spread over Canada as is possible. Oceanographic stations at St. Andrews, N.B., and Nanaimo, B.C., will take part in international deep ocean current surveys in the Atlantic and Pacific.

Perhaps the most spectacular experiments during the IGY are those that will be carried out in *Rockets and Satellites*. The firing of these is really only a means of sending measuring instruments to the outer limits of the atmosphere so that more may be learned about the space surrounding this planet. Instruments will be carried to measure such phenomena as the composition of the residual gas and the nature of solar and other radiation. The organization required to fire rockets and to get satellites on stable orbits, then to receive the data from them by radio, is sufficiently involved to justify listing this as a separate discipline. Canada has no rocket or satellite program, but the United States is carrying out extensive rocket firing at Churchill, Man., and Canada's Defence Research Laboratories are co-operating with United States scientists in this work.

Seismology and Gravity are two disciplines that have been organized on an international scale for many years. They were included in the IGY plan largely because expeditions to the Antarctic and other remote points made it possible to add stations to the existing net. The Canadian seismological station at Resolute, N.W.T., which has been in operation since 1950, is considered one of the most important in the world.

Radioactivity in the Earth's Atmosphere was added officially as an IGY discipline in 1956. The natural radioactivity in the atmosphere has been known for many years but a world-wide survey has never been conducted. Added to the natural radioactivity there is radioactive dust carried in the atmosphere after each atomic explosion which will take years to fall out. Questions to be answered include: how much is there and at what height it is carried, what are the physical processes in its falling out, and how it is being brought down with precipitation.

Historically, this International Geophysical Year is the third co-operative effort of this sort. The first two (1882-83 and 1932-33) were International Polar Years. In the first, Canadian science, being very young, took little part though there were three expeditions into northern Canada—one British, one German and one American. In the second there were five Canadian stations in northern Canada and one established there by the United Kingdom.

The organization of the international program is handled by a committee formed by the International Council of Scientific Unions, having headquarters and an executive office at Uccle, Belgium. It is known as the Comité Spécial de l'Année Géophysique Internationale (CSAGI). The Committee, composed of representatives from seven International Scientific Unions, is supported by an Advisory Council for the IGY which meets with the Committee and has representatives from the various co-operating nations. The

CSAGI acts as a co-ordinating headquarters and information centre. Sub-committees organized in the various disciplines work out uniform techniques for the world-wide measurements and endeavour to secure as complete coverage as possible.

In Canada, a Canadian National Committee was organized in 1953 as a sub-committee of the National Research Council's Associate Committee on Geodesy and Geophysics. This Committee, which included university and government scientists active in the various disciplines, drew up a proposed program and in 1955 recommended the formation of a small executive or co-ordinating committee to put that program into operation. The Co-ordinating Committee now consists of Dr. C. S. Beals, Dominion Astronomer, Mr. F. T. Davies, Defence Research Board, and Dr. D. W. R. McKinley and Dr. D. C. Rose of the National Research Council. Dr. Rose is Chairman of both Committees. The Canadian program is financed by the various government departments concerned with the activities involved including Mines and Technical Surveys, Transport, National Defence, Fisheries Research Board and the National Research Council. A number of Canadian universities are undertaking an important part in the program and are aided in doing so by assisted research grants from the National Research Council. As in the international organization, the Canadian program is one of co-operation among many scientific groups.

Section 2.—Astronomy

The modern era of astronomy in Canada may be said to have begun in 1905 with the completion of the Dominion Observatory, the national observatory of Canada. Prior to that an astronomical observatory established in 1851 at Fredericton, N.B., was used for a short time to determine the longitude of that centre and for general astronomical purposes; it has recently been rehabilitated as a historic monument. Other small observatories were established, one at Quebec City in 1854 and one at Kingston in 1875. Astronomical instruments were to be associated with the Magnetic Observatory built by the British Government at Toronto in 1839 but there is no record of them being set up until 1881. A small observatory established at McGill University in 1879 was used for many years for time observations.

Today the science of astrophysics is carried on mainly by three Canadian institutions: the Dominion Observatory at Ottawa, Ont., the Dominion Astrophysical Observatory at Victoria, B.C., both of which are administered by the Department of Mines and Technical Surveys, and the David Dunlap Observatory associated with the University of Toronto. Of the two Government institutions, the Dominion Observatory at Ottawa specializes mainly in the astronomy of position, in solar physics and in various branches of geophysical work, while the major effort in astrophysics is concentrated at the Dominion Astrophysical Observatory at Victoria. The David Dunlap Observatory, founded in 1935, is equipped with very fine astrophysical instruments of a kind similar to those in use at Victoria. It performs not only the functions of a privately financed and administered research institution but is also the nucleus of the Department of Astronomy at Toronto University. In addition to the work of these three major institutions and a number of smaller observatories, investigations in the field of radio astronomy are conducted by the National Research Council, Ottawa.

CHAPTER II.—CONSTITUTION AND GOVERNMENT

CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

PART I.—CONSTITUTION OF CANADA

The Canadian federal state was established by the British North America Act, 1867, which united the three British North American provinces of Canada, New Brunswick and Nova Scotia into one country, divided into four provinces, namely, Ontario, Quebec, New Brunswick and Nova Scotia. British Columbia entered the Union in 1871 and Prince Edward Island in 1873. The Province of Manitoba was created in 1870 and the Provinces of Saskatchewan and Alberta in 1905 out of portions of the territories formerly held by the Hudson's Bay Company which had been admitted to the Union in 1870. Newfoundland entered the Union in 1949. Canada now consists of ten provinces and two territories known as the Yukon Territory and the Northwest Territories.

The British North America Act of 1867 divided both legislative and executive authority between Canada and the provinces. Judicial authority was not similarly divided, federal and provincial courts having jurisdiction with respect to both federal and provincial laws.

Although the British North America Act of 1867 and its subsequent amendments is popularly regarded as the Constitution of Canada, it is not an exhaustive statement of the laws and rules by which Canada is governed. The Constitution of Canada in its broadest sense includes other statutes of the United Kingdom Parliament (e.g., the Statute of Westminster, 1931), statutes of the Parliament of Canada relating to such matters as the succession to the Throne, the demise of the Crown, the Governor General, the Senate, the House of Commons, electoral districts, elections, Royal Style and Titles, and also statutes of provincial legislatures relating to provincial government and provincial legislative assemblies. Other written instruments such as the Royal Proclamation of 1763, early instructions to Governors, Letters Patent creating the offices of Governors and

1.—Provinces and Territories of Canada, Dates of Admission to Confederation, Legislative Processes by which Admission was Effected and Present Areas

| Province, Territory or District | Date of Admission or Creation | Legislative Process | Present Area (sq. miles) |
|--|-------------------------------------|--|--------------------------------|
| Ontario ¹ | July 1, 1867 | Act of Imperial Parliament—The British North America Act, 1867 (30-31 Vict., c. 3), and Imperial Order in Council, May 22, 1867. | 412,582 |
| Quebec ² | July 1, 1867 | | 594,860 |
| Nova Scotia..... | July 1, 1867 | | 21,068 |
| New Brunswick..... | July 1, 1867 | | 27,985 |
| Manitoba ³ | July 15, 1870 | Manitoba Act, 1870 (33 Vict., c. 3) and Imperial Order in Council, June 23, 1870..... | 251,030 |
| British Columbia..... | July 20, 1871 | Imperial Order in Council, May 16, 1871..... | 366,255 |
| Prince Edward Island..... | July 1, 1873 | Imperial Order in Council, June 26, 1873..... | 2,184 |
| Saskatchewan ⁴ | Sept. 1, 1905 | Saskatchewan Act, 1905 (4-5 Edw. VII, c. 42)..... | 251,700 |
| Alberta ⁴ | Sept. 1, 1905 | Alberta Act, 1905 (4-5 Edw. VII, c. 3)..... | 255,285 |
| Newfoundland..... | Mar. 31, 1949 | The British North America Act, 1949 (12-13 Geo. VI, c. 22)..... | 156,185 |
| Northwest Territories ⁵ | July 15, 1870 | Act of Imperial Parliament—Rupert's Land Act, 1868 (31-32 Vict., c. 105), and Imperial Order in Council, June 23, 1870..... | 1,304,903 |
| Mackenzie ⁶ | Jan. 1, 1920 | Order in Council, Mar. 16, 1918..... | 587,490 |
| Keewatin ⁶ | Jan. 1, 1920 | | 228,160 |
| Franklin ⁶ | Jan. 1, 1920 | | 649,255 |
| Yukon Territory ⁷ | June 13, 1898 | Yukon Territory Act, 1898 (61 Vict., c. 6)..... | 207,076 |
| Canada..... | | | 3,851,113 |

¹ The area of Ontario was extended by the Ontario Boundaries Extension Act, 1912 (2 Geo. V, c. 40).

² Extended by Quebec Boundaries Extension Act, 1912 (2 Geo. V, c. 45) and diminished Mar. 1, 1927 in consequence of the Award of the Judicial Committee of the British Privy Council whereby approximately 112,000 sq. miles of territory (formerly considered as part of Quebec) was assigned to Newfoundland.

³ Extended by the Extension of Boundaries Act of Manitoba, 1881, and the Manitoba Boundaries Extension Act, 1912 (2 Geo. V, c. 32).

⁴ Saskatchewan and Alberta created as provinces in 1905 from the area formerly comprised in the provisional Districts of Assiniboia, Athabasca, Alberta and Saskatchewan established May 17, 1882, by minute of Canadian Privy Council concurred in by Dominion Parliament and Order in Council, Oct. 2, 1895.

⁵ By an Imperial Order in Council passed on June 23, 1870 pursuant to the Rupert's Land Act, 1868 (31-32 Vict., c. 105) the former territories of the Hudson's Bay Company known as Rupert's Land and the North-Western Territory were transferred to Canada effective July 15, 1870. These territories were designated as the North-West Territories by the Act of 32-33 Vict., c. 3 and as the Northwest Territories by R.S.C. 1906, c. 62. By Imperial Order in Council of July 31, 1880 (effective Sept. 1, 1880) all British territories and possessions in North America not already included within Canada and all islands adjacent thereto (with the exception of the Colony of Newfoundland and its dependencies) were annexed to Canada and these additional territories were formally included in the North-West Territories by 4-5 Edw. VII, c. 27. The Province of Manitoba was formed out of a portion of the territories by the Manitoba Act, 1870 (33 Vict., c. 3) and a further portion was added to Manitoba in 1881 by 44 Vict., c. 14. The Provinces of Alberta and Saskatchewan were formed out of portions of the territories in 1905 and in 1912 other portions were added to Manitoba, Ontario and Quebec.

⁶ By 39 Vict., c. 21, a separate district to be known as the District of Keewatin was established and provision was made for the local government thereof. The Act was expressed to come into force by proclamation. It provided that portions of the District might be re-annexed to the North-West Territories by proclamation; in 1886 a portion of the District of Keewatin was re-annexed and in 1905 the entire Keewatin District was re-annexed. The Act of 39 Vict. was never proclaimed. By Order in Council of May 8, 1882 the provisional districts of Assiniboia, Saskatchewan, Alberta and Athabasca were created for the convenience of settlers and for postal purposes. By Order in Council of Oct. 2, 1895 the further provisional districts of Ungava, Franklin, Mackenzie and Yukon were created. The boundaries of these provisional districts were re-defined by Order in Council of Dec. 13, 1897. Subsequently the Yukon Territory was formed, the Provinces of Alberta and Saskatchewan were created and other portions of the territories were annexed to Quebec, Ontario and Manitoba. By Order in Council, dated Mar. 16, 1918 (effective Jan. 1, 1920) the remaining portions of the Northwest Territories were divided into three provisional districts known as Mackenzie, Keewatin and Franklin.

⁷ The provisional district of Yukon established in 1895 was created a judicial district of the North-West Territories by proclamation issued pursuant to Sect. 51 of the North-West Territories Act (R.S.C. 1886, c. 50) on Aug. 16, 1897 and by the Yukon Territory Act (61 Vict., c. 6) was declared to be a separate Territory.

Governors General, and Orders in Council passed pursuant to the British North America Act also form part of the Canadian constitutional system. In addition the Constitution of Canada includes well established usages and conventions. The preamble to the British North America Act states that it was the desire of the original provinces to be united "with a constitution similar in principle to that of the United Kingdom" and, accordingly, many of the usages and conventions of government that have been developed in the United Kingdom over the centuries are followed in Canada. For example, the Cabinet system of responsible government as developed in the United Kingdom obtains in Canada although no mention thereof is made in the British North America Act.

No provision was made in the British North America Act of 1867 for amendment thereof by any legislative authority in Canada but both the Parliament of Canada and the provincial legislatures were given legislative jurisdiction with respect to some matters relating to government. Thus, for example, the Parliament of Canada was given jurisdiction with respect to the establishment of electoral districts and election laws and the privileges and immunities of Members of the House of Commons and the Senate, and each provincial legislature was empowered to amend the constitution of the province except as regards the office of Lieutenant-Governor. By an amendment to the British North America Act passed in 1949 the authority of the Parliament of Canada to legislate with respect to constitutional matters was considerably enlarged and it may now amend the Constitution of Canada except as regards the legislative authority of the provinces, the rights and privileges of provincial legislatures or governments, schools, the use of the English or the French language, and the duration of the House of Commons other than in time of real or apprehended war, invasion or insurrection.

Canada's Status in the Commonwealth of Nations.*—The several stages in the development of the status of Canada have been authoritatively described in the reports of successive Imperial Conferences including that held at London in 1926 which defined the group of self-governing communities consisting of the United Kingdom and the Dominions as "autonomous communities within the British Empire, equal in status, in no way subordinate one to another in any aspect of their domestic or external affairs, though united by a common allegiance to the Crown, and freely associated as members of the British Commonwealth of Nations". That Conference also recognized that, as a consequence of this equality of status, the Governor General of a Dominion "is the representative of the Crown, holding in all essential respects the same position in relation to the administration of public affairs in the Dominion as is held by His Majesty the King in Great Britain", and that "it is the right of the Government of each Dominion to advise the Crown in all matters relating to its own affairs". Simultaneously with this change in the constitutional relationship between the several parts of the British Commonwealth of Nations there developed as a complementary aspect of nationhood the assumption by the several Dominions of further responsibilities and rights of sovereign States in their relations with other members of the community of nations. Membership in the League of Nations and more recently in the United Nations, the exercise of treaty-making powers and the establishment of separate diplomatic representation in a number of foreign countries have characterized this phase in the growth of Canada. More explicit recognition of the implications of the principles of equality of status was accorded in the Statute of Westminster of 1931 which provided for the removal of the remaining limitations on the legislative autonomy of the Commonwealth nations.

Thus Canada, under the Crown, has equality of status with the United Kingdom and the other Commonwealth nations in both domestic and foreign affairs; its Government advises the Crown in the person of the Governor General on all matters relating to Canada. Canada has membership in the United Nations; makes its own treaties; appoints its own ambassadors and other representatives abroad; levies its own taxes; makes its own laws which are executed by a government dependent on the will of a majority of the people; and maintains its own naval, military and air forces. In short, Canada has achieved full status of democratic nationhood within the Commonwealth of Nations.

* For a more detailed account see 1952-53 Year Book, pp. 101-104.

PART II.—MACHINERY OF GOVERNMENT

Section 1.—The Federal Government

Subsection 1.—The Executive

The Crown.—The British North America Act provides that “the Executive Government and authority of and over Canada is . . . vested in the Queen”. The functions of the Crown, which are substantially the same as those of the Queen in relation to the Government of the United Kingdom, are discharged in Canada by the Governor General in accordance with established principles of responsible government. The practical executive functions of government are exercised by the Cabinet.

The Queen.—The personal participation of the Queen in the functions of the Crown in Canada has been limited to such occasions as the granting of honours and awards, approval of changes in the Table of Precedence, institution of new military awards, or the periodic appointment of a Governor General. On the occasion of a royal visit, the Queen may participate in those ceremonies which otherwise are carried out in her name, such as the opening and dissolution of Parliament, the assent to Bills, and the granting of a general amnesty.

Apart from her constitutional position in relation to the various governments of the Commonwealth countries the Queen is Head of the Commonwealth and symbolizes the association of the member countries. Until 1953 the title of the Queen was the same throughout the Commonwealth. Constitutional developments put the title somewhat out of accord with the facts of the position and in December 1952 it was decided by the Prime Ministers of the Commonwealth countries meeting at London, Eng., that new forms of title for each country should be devised. The title for Canada was approved by Parliament and established by a Royal Proclamation on May 29, 1953. The title of the Queen, so far as Canada is concerned, now is:—

“Elizabeth the Second, by the grace of God of the United Kingdom, Canada and her other realms and territories Queen, Head of the Commonwealth, Defender of the Faith”.

The Governor General.—The Governor General, appointed by the Queen as her personal representative on the advice of the Prime Minister of Canada, traditionally serves for a term of five years. He exercises the executive authority of the Queen in relation to the Government of Canada under new Letters Patent issued under the Great Seal of Canada (effective Oct. 1, 1947) and the provisions of the British North America Acts 1867 to 1952. Acting under the recommendations of his responsible Ministers, in the Queen’s name, he summons, prorogues, and dissolves Parliament and assents to Bills and exercises other executive functions.

The Governor General’s annual salary and allowances provided by the Parliament of Canada are respectively \$48,666 and \$100,000. In addition there are other expenses of office, including the salary of the Governor General’s secretary.

The present Governor General is styled His Excellency the Right Honourable Vincent Massey, C.H.

2.—Governors General of Canada since Confederation, 1867

| Name | Date of Appointment | Date of Assumption of Office |
|--|---------------------|------------------------------|
| VISCOUNT MONCK, G.C.M.G. | June 1, 1867 | July 1, 1867 |
| LORD LISGAR, G.C.M.G. | Dec. 29, 1868 | Feb. 2, 1869 |
| THE EARL OF DUFFERIN, K.P., K.C.B., G.C.M.G. | May 22, 1872 | June 25, 1872 |
| THE MARQUIS OF LORNE, K.T., G.C.M.G. | Oct. 5, 1878 | Nov. 25, 1878 |
| THE MARQUIS OF LANSDOWNE, G.C.M.G. | Aug. 18, 1883 | Oct. 23, 1883 |
| LORD STANLEY OF PRESTON, G.C.B. | May 1, 1888 | June 11, 1888 |
| THE EARL OF ABERDEEN, K.T., G.C.M.G. | May 22, 1893 | Sept. 18, 1893 |
| THE EARL OF MINTO, G.C.M.G. | July 30, 1898 | Nov. 12, 1898 |
| EARL GREY, G.C.M.G. | Sept. 26, 1904 | Dec. 10, 1904 |
| FIELD MARSHAL H. R. H. THE DUKE OF CONNAUGHT, K.G. | Mar. 21, 1911 | Oct. 13, 1911 |
| THE DUKE OF DEVONSHIRE, K.G., G.C.M.G., G.C.V.O. | Aug. 19, 1916 | Nov. 11, 1916 |

2.—Governors General of Canada since Confederation, 1867—concluded

| Name | Date of Appointment | Date of Assumption of Office |
|---|---------------------|------------------------------|
| GENERAL THE LORD BYNG OF VIMY, G.C.B., G.C.M.G., M.V.O..... | Aug. 2, 1921 | Aug. 11, 1921 |
| VISCOUNT WILLINGDON OF RATON, G.C.S.I., G.C.I.E., G.B.E..... | Aug. 5, 1926 | Oct. 2, 1926 |
| THE EARL OF BESSBOROUGH, G.C.M.G..... | Feb. 9, 1931 | Apr. 4, 1931 |
| LORD TWEEDSMUIR OF ELSFIELD, G.C.M.G., G.C.V.O., C.H..... | Aug. 10, 1935 | Nov. 2, 1935 |
| MAJOR-GENERAL THE EARL OF ATHLONE, K.G., P.C., G.C.B., G.C.M.G., G.C.V.O., D.S.O..... | Apr. 3, 1940 | June 21, 1940 |
| FIELD MARSHAL VISCOUNT ALEXANDER OF TUNIS, K.G., G.C.B., G.C.M.G., C.S.I., D.S.O., M.C., A.D.C..... | Aug. 1, 1945 | Apr. 12, 1946 |
| THE RIGHT HONOURABLE VINCENT MASSEY, C.H..... | Jan. 24, 1952 | Feb. 28, 1952 |

The Cabinet.—The Cabinet is a committee of Ministers chosen by the Prime Minister generally from Members of Parliament. By convention, all members of the Cabinet must either have seats in Parliament or secure seats within a short time and again by convention all Ministers in charge of departments of government must be members of the House of Commons. It is customary for the Leader of the Government in the Senate to be a member of the Cabinet. Ministers without Portfolio can be members of either House.

The Cabinet, under the leadership of the Prime Minister, directs the business of the Commons, initiates nearly all public Bills placed before Parliament, and has complete responsibility for the initiation of taxes and the recommendation of expenditures. Following established precedent or convention, it is always responsible to the Commons. When the Cabinet (the Government) suffers the defeat of a Government Bill or a vote of censure or of want of confidence in the Commons, which may call the Government to account at any time, the existing Government or Cabinet must either resign or request a dissolution from the Governor General. If it resigns, the Governor General calls on the Leader of the Opposition in the Commons to form a new Government. Alternatively, if the Government which has been defeated in the House is granted a dissolution and is defeated in the ensuing general election then, depending on the number of members returned, (1) the Government may decide to remain in office and seek a vote of confidence in the House when it meets; or (2) the Government may decide to resign immediately with the consequent result that the Governor General will ask the leader of the party with the highest number of members returned to form a new Government.

The primary responsibility of the Governor General in either of the above circumstances is to provide the nation with a Cabinet or Ministry capable of conducting Her Majesty's Government with the support of Parliament.

Although appointed by the Governor General, Cabinet members are selected by the Prime Minister from among his party colleagues in such manner as to ensure, as far as possible, representation of the several geographical and political regions of the country and its principal ethnic, religious and social interests. Each Cabinet Minister generally assumes charge of one of the departments of government, although a Minister may hold more than one portfolio at the same time or he may hold one or more portfolios and one or more acting portfolios or a Minister without Portfolio may hold one or more acting portfolios. In his acting capacity, the Minister exercises the same authority as if he were the Minister of the department.

3.—Prime Ministers since Confederation, 1867

| Ministry | Prime Minister | Length of Administration |
|----------|---|-------------------------------|
| 1 | Rt. Hon. Sir JOHN ALEXANDER MACDONALD..... | July 1, 1867 - Nov. 5, 1873 |
| 2 | Hon. ALEXANDER MACKENZIE..... | Nov. 7, 1873 - Oct. 16, 1878 |
| 3 | Rt. Hon. Sir JOHN ALEXANDER MACDONALD..... | Oct. 17, 1878 - June, 6, 1891 |
| 4 | Hon. Sir JOHN JOSEPH CALDWELL ABBOTT..... | June 16, 1891 - Nov. 24, 1892 |
| 5 | Rt. Hon. Sir JOHN SPARROW DAVID THOMPSON..... | Dec. 5, 1892 - Dec. 12, 1894 |
| 6 | Hon. Sir MACKENZIE BOWELL..... | Dec. 21, 1894 - Apr. 27, 1896 |
| 7 | Hon. Sir CHARLES TUPPER..... | May 1, 1896 - July 8, 1896 |
| 8 | Rt. Hon. Sir WILFRID LAURIER..... | July 11, 1896 - Oct. 6, 1911 |
| 9 | Rt. Hon. Sir ROBERT LAIRD BORDEN..... | Oct. 10, 1911 - Oct. 12, 1917 |

(Conservative Administration)

3.—Prime Ministers since Confederation, 1867—concluded

| Ministry | Prime Minister | Length of Administration |
|----------|---|--|
| 10 | Rt. Hon. Sir ROBERT LAIRD BORDEN..... | Oct. 12, 1917 - July 10, 1920 (Unionist Administration) |
| 11 | Rt. Hon. ARTHUR MEIGHEN..... | July 10, 1920 - Dec. 29, 1921 (Unionist—"National Liberal and Conservative Party") |
| 12 | Rt. Hon. WILLIAM LYON MACKENZIE KING..... | Dec. 29, 1921 - June 28, 1926 |
| 13 | Rt. Hon. ARTHUR MEIGHEN..... | June 29, 1926 - Sept. 25, 1926 |
| 14 | Rt. Hon. WILLIAM LYON MACKENZIE KING..... | Sept. 25, 1926 - Aug. 6, 1930 |
| 15 | Rt. Hon. RICHARD BUDFORD BENNETT..... | Aug. 7, 1930 - Oct. 23, 1935 |
| 16 | Rt. Hon. WILLIAM LYON MACKENZIE KING..... | Oct. 23, 1935 - Nov. 15, 1948 |
| 17 | Rt. Hon. LOUIS STEPHEN ST. LAURENT..... | Nov. 15, 1948 - June 21, 1957 |
| 18 | Rt. Hon. JOHN GEORGE DIEFFENBAKER..... | June 21, 1957 - ... |

4.—Members of the Eighteenth Ministry as at Oct. 15, 1957

(According to precedence of Ministers)

NOTE.—A complete list of the members of Federal Ministries from Confederation to 1913 appears in the 1912 Year Book, pp. 422-429. Later Ministries will be found in subsequent editions.

| Office | Occupant | Date of First Appointment ¹ | Date of Appointment to Present Portfolio |
|--|---|--|--|
| Prime Minister..... | Rt. Hon. JOHN GEORGE DIEFFENBAKER..... | June 21, 1957 | June 21, 1957 |
| Minister of Public Works and Acting Minister of Defence Production..... | Hon. HOWARD CHARLES GREEN..... | June 21, 1957 | June 21, 1957 |
| Minister of Finance and Receiver General..... | Hon. DONALD METHUEN FLEMING..... | June 21, 1957 | June 21, 1957 |
| Minister of Veterans Affairs..... | Hon. ALFRED JOHNSON BROOKS..... | June 21, 1957 | June 21, 1957 |
| Minister of Transport..... | Hon. GEORGE HEES..... | June 21, 1957 | June 21, 1957 |
| Solicitor General..... | Hon. LEON BALCER..... | June 21, 1957 | June 21, 1957 |
| Minister of National Defence..... | Hon. GEORGE RANDOLPH PEARKES..... | June 21, 1957 | June 21, 1957 |
| Minister of Trade and Commerce..... | Hon. GORDON MINTO CHURCHILL..... | June 21, 1957 | June 21, 1957 |
| Minister of Justice and Attorney General and Acting Minister of Citizenship and Immigration..... | Hon. EDMUND DAVIE FULTON..... | June 21, 1957 | June 21, 1957 |
| Minister of National Revenue..... | Hon. GEORGE CLYDE NOWLAN..... | June 21, 1957 | June 21, 1957 |
| Minister of Agriculture..... | Hon. DOUGLAS SCOTT HARKNESS..... | June 21, 1957 | Aug. 7, 1957 |
| Secretary of State..... | Hon. ELLEN LOUKS FAIRCLOUGH..... | June 21, 1957 | June 21, 1957 |
| Minister of Fisheries..... | Hon. J. ANGUS MACLEAN..... | June 21, 1957 | June 21, 1957 |
| Minister of Labour..... | Hon. MICHAEL STARR..... | June 21, 1957 | June 21, 1957 |
| Postmaster General..... | Hon. WILLIAM MCLEAN HAMILTON..... | June 21, 1957 | June 21, 1957 |
| Minister without Portfolio..... | Hon. JAMES MAC KERRAS MACDONNELL..... | June 21, 1957 | June 21, 1957 |
| Minister without Portfolio..... | Hon. WILLIAM J. BROWNE..... | June 21, 1957 | June 21, 1957 |
| Minister of Mines and Technical Surveys..... | Hon. PAUL COMTOIS..... | Aug. 7, 1957 | Aug. 7, 1957 |
| Minister of National Health and Welfare..... | Hon. JAY WALDO MONTEITH..... | Aug. 22, 1957 | Aug. 22, 1957 |
| Minister of Northern Affairs and National Resources..... | Hon. FRANCIS ALVIN GEORGE HAMILTON..... | Aug. 22, 1957 | Aug. 22, 1957 |
| Secretary of State for External Affairs..... | Hon. SIDNEY EARLE SMITH..... | Sept. 13, 1957 | Sept. 13, 1957 |
| Leader of the Government in the Senate and Minister without Portfolio..... | Hon. JOHN THOMAS HAIG..... | Oct. 9, 1957 | Oct. 9, 1957 |

¹ Appointee was not necessarily sworn in on date given.

Administrative duties in the various departments of government became so burdensome during World War II that Parliamentary Assistants were appointed to assist six Cabinet Ministers with their Parliamentary duties. The practice was extended after the War and at Oct. 15, 1957, there were 12 Parliamentary Assistants, as follows:—

| | |
|---|--------------------------|
| To Prime Minister..... | WALLACE BICKFORD NESBITT |
| To Minister of Agriculture..... | JOHN A. CHARLTON |
| To Minister of National Health and Welfare..... | G. ERNEST HALPENNY |
| To Minister of Labour..... | ARTHUR MALONEY |
| To Minister of Public Works..... | CLAYTON W. HODGSON |
| To Mines and Technical Surveys..... | RAYMOND O'HURLEY |
| To Minister of Trade and Commerce..... | THOMAS M. BELL |
| To Minister of Transport..... | ANGUS R. MACDONALD |
| To Minister of Veterans Affairs..... | WALTER DINSDALE |
| To Minister of Justice..... | DAVID J. WALKER |
| To Minister of Finance..... | RICHARD A. BELL |
| To Minister of National Defence..... | MARSHALL LAMBERT |

The Privy Council.—The Queen's Privy Council for Canada is composed of eighty to ninety members who are sworn of the Council by the Governor General on the advice of the Prime Minister and who retain membership for life. The Council consists chiefly of present and former Ministers of the Crown. It seldom meets as a body and its constitutional responsibilities as adviser to the Crown in respect to Canada are performed exclusively by a committee thereof consisting of the Ministers who constitute the Cabinet of the day and are also members of the Queen's Privy Council for Canada.

5.—Members of the Queen's Privy Council for Canada According to Seniority Therein as at Oct. 15, 1957

NOTE.—In this list the prefix "The Rt. Hon." indicates membership in the United Kingdom Privy Council. Clerk of the Privy Council and Secretary to the Cabinet, R. B. BRYCE; Assistant Clerk of the Privy Council, A. M. HILL.

| Member ¹ | Date When Sworn In | Member ¹ | Date When Sworn In |
|-------------------------------------|--------------------|--|--------------------|
| The Rt. Hon. ARTHUR MEIGHEN..... | Oct. 2, 1915 | The Hon. LESTER BOWLES PEARSON... | Sept. 10, 1948 |
| The Hon. ERIOFF LEON PATENAUDE.... | Oct. 6, 1915 | The Hon. STUART SINCLAIR CARSON... | Nov. 15, 1948 |
| The Hon. ALBERT SEVIGNY..... | Jan. 8, 1917 | The Hon. ROBERT HENRY WINTERS... | Nov. 15, 1948 |
| The Hon. THOMAS ALEXANDER CREECH | Oct. 12, 1917 | The Hon. FREDERICK GORDON BRAD- | |
| The Hon. HENRY HERBERT STEVENS... | Sept. 21, 1921 | LEY..... | Apr. 1, 1949 |
| The Hon. EDWARD JAMES McMURRAY. | Nov. 14, 1923 | The Hon. CHARLES JOST BURCHELL... | Apr. 1, 1949 |
| The Rt. Hon. CHARLES VINCENT | | The Hon. GASPARD FAUTEUX..... | May 16, 1949 |
| MASSEY..... | Sept. 16, 1925 | The Hon. HUGUES LAPOINTE..... | Aug. 25, 1949 |
| The Hon. CHARLES AVERY DUNNING. | Mar. 1, 1926 | The Hon. GABRIEL EDOUARD RINFRET. | Aug. 25, 1949 |
| The Hon. WILLIAM DAUM EULER..... | Sept. 25, 1926 | The Hon. WALTER EDWARD HARRIS... | Jan. 18, 1950 |
| H.R.H. THE DUKE OF WINDSOR..... | Aug. 2, 1927 | The Hon. GEORGE PRUDHAM..... | Dec. 13, 1950 |
| The Hon. ARTHUR CHARLES HARDY... | July 31, 1930 | The Hon. GEORGE BLACK..... | Aug. 3, 1951 |
| The Hon. DONALD MATHESON SUTHER- | | EARL ALEXANDER OF TUNIS..... | Jan. 29, 1952 |
| LAND..... | Aug. 7, 1930 | The Hon. JAMES SINCLAIR..... | Oct. 15, 1952 |
| The Hon. THOMAS GREGORY MURPHY. | Aug. 7, 1930 | The Hon. RALPH OSBORNE CAMPNEY... | Oct. 15, 1952 |
| The Hon. WILLIAM DUNCAN HERRIDGE | June 17, 1931 | The Hon. WILLIAM ROSS MACDONALD. | May 12, 1953 |
| The Hon. SAMUEL GOBIL..... | Aug. 14, 1935 | The Hon. GEORGE ALEXANDER DREW. | May 12, 1953 |
| The Hon. LUCIEN HENRI GENDRON.... | Aug. 30, 1935 | The Rt. Hon. JOHN WHITNEY PICKERSGILL. | June 12, 1953 |
| The Hon. WILLIAM EARL ROWE..... | Aug. 30, 1935 | The Rt. Hon. THIBAUDEAU RINFRET... | Sept. 16, 1953 |
| The Hon. ONESIME GAGNON..... | Aug. 30, 1935 | The Hon. JEAN LESAGE..... | Sept. 17, 1953 |
| The Hon. CHARLES GAVAN POWER..... | Oct. 23, 1935 | The Hon. PATRICK KERWIN..... | July 1, 1954 |
| The Rt. Hon. JAMES LORIMER LILEY... | Oct. 23, 1935 | The Hon. GEORGE CARLYLE MARLER... | July 1, 1954 |
| The Hon. JOSEPH ENOIL MICHAUD..... | Oct. 23, 1935 | The Hon. ROCH PINARD..... | July 1, 1954 |
| The Rt. Hon. CLARENCE DECATUR | | The Hon. HERBERT J. STYNGTON..... | Nov. 26, 1956 |
| HOWE..... | Oct. 23, 1935 | The Hon. LOUIS RENE BEAUDOIN..... | Apr. 15, 1957 |
| The Rt. Hon. JAMES GARFIELD GARD- | | The Hon. PAUL THEODORE HELLYER... | Apr. 26, 1957 |
| NER..... | Nov. 4, 1935 | The Rt. Hon. JOHN GEORGE | |
| The Hon. JAMES ANGUS MACKENNON... | Jan. 23, 1939 | DIEFFENBAKER ² | June 21, 1957 |
| The Hon. COLIN WILLIAM GEORGE | | The Hon. HOWARD CHARLES GREEN ² ... | June 21, 1957 |
| GIBSON..... | July 8, 1940 | The Hon. DONALD METHUEN FLEMING ² | June 21, 1957 |
| The Hon. JOSEPH THORLINN THORSON | June 11, 1941 | The Hon. ALFRED JOHNSON BROOKS ² ... | June 21, 1957 |
| The Hon. WILLIAM FERDINAND AL- | | The Hon. GEORGE HEES ² | June 21, 1957 |
| PHONSE TURGEON..... | Oct. 8, 1941 | The Hon. LEON BALZER..... | June 21, 1957 |
| The Rt. Hon. LOUIS STEPHEN ST. | | The Hon. GEORGE RANDOLPH PEARKES ² | June 21, 1957 |
| LAURENT..... | Dec. 10, 1941 | The Hon. GORDON MINTO CHURCHILL ² | June 21, 1957 |
| The Rt. Hon. SIR WINSTON LEONARD | | The Hon. EDMUND DAVID FULTON ² ... | June 21, 1957 |
| SPENCER CHURCHILL..... | Dec. 29, 1941 | The Hon. GEORGE SCOTTE NOWLAN ² ... | June 21, 1957 |
| The Hon. ALFRED FOSTER..... | Oct. 7, 1942 | The Hon. DOUGLAS CLYDE HARKNESS ² | June 21, 1957 |
| The Hon. ERNEST BERTRAND..... | Oct. 7, 1942 | The Hon. ELLEN LOUKS FAIRCLOUGH ² ... | June 21, 1957 |
| The Hon. BROOKE CLAXTON..... | Oct. 13, 1944 | The Hon. J. ANGUS MACLEAN ² | June 21, 1957 |
| The Hon. ANDREW GEORGE LATTA | | The Hon. MICHAEL STARR ² | June 21, 1957 |
| MCAUGHTON..... | Nov. 2, 1944 | The Hon. WILLIAM MCLEAN HAMILTON ² | June 21, 1957 |
| The Hon. JOSEPH ARTHUR JEAN..... | Apr. 18, 1945 | The Hon. JAMES MACKERRAS MAC- | |
| The Hon. LIONEL CHEVRIER..... | Apr. 18, 1945 | DONNELL ² | June 21, 1957 |
| The Hon. PAUL JOSEPH JAMES MARTIN. | Apr. 18, 1945 | The Hon. WILLIAM J. BROWNE ² | June 21, 1957 |
| The Hon. DOUGLAS CHARLES ABBOTT. | Apr. 18, 1945 | The Hon. PAUL COMTOIS ² | Aug. 7, 1957 |
| The Hon. JAMES JOSEPH MCCANN..... | Apr. 18, 1945 | The Hon. JAY WALDO MONTEITH ² ... | Aug. 22, 1957 |
| The Hon. DAVID LAURENCE MACLAREN | Apr. 18, 1945 | The Hon. FRANCIS ALVIN GEORGE | |
| The Hon. THOMAS VERN..... | July 19, 1945 | HAMILTON ² | Aug. 22, 1957 |
| The Hon. WISHART MCLEA ROBERTSON. | Sept. 4, 1945 | The Hon. SIDNEY EARLE SMITH ² | Sept. 13, 1957 |
| The Hon. MILTON FOWLER GREGG..... | Sept. 2, 1947 | The Hon. JOHN THOMAS HAIG..... | Oct. 9, 1957 |
| The Hon. ROBERT WELLINGTON MAY- | | H.R.H. THE PRINCE PHILIP, Duke of | |
| HEW..... | June 11, 1948 | Edinburgh..... | Oct. 14, 1957 |

¹ Members of Her Majesty's Privy Council for Canada take rank *inter se* according to the dates of their being sworn in.

² Ranks as a Member of the Cabinet.

³ Ranks as the Prime Minister of Canada.

6.—Duration and Sessions of Parliaments 1936-57

NOTE.—Similar information for the 1st to the 12th Parliaments, covering the period from Confederation to 1917 is given in the 1940 Year Book, p. 46, and that for the 13th to 17th Parliaments in the 1945 edition, p. 53.

| Order of Parliament | Session | Date of Opening | Date of Prorogation | Days of Session | Sitting Days of House of Commons | Date of Election, Writs Returnable, Dissolution, and Length of Parliament ^{1,2} |
|------------------------------------|---------|-----------------|---------------------|-----------------|----------------------------------|---|
| 18th Parliament..... | 1st | Feb. 6, 1936 | June 23, 1936 | 139 | 91 | Oct. 14, 1935 ³ Nov. 9, 1935 ⁴ Jan. 25, 1940 ⁵ 4 y., 2 m., 16 d. |
| | 2nd | Jan. 14, 1937 | Apr. 10, 1937 | 87 | 62 | |
| | 3rd | Jan. 27, 1938 | July 1, 1938 | 156 | 102 | |
| | 4th | Jan. 12, 1939 | June 3, 1939 | 143 | 103 | |
| | 5th | Sept. 7, 1939 | Sept. 13, 1939 | 7 | 6 | |
| | 6th | Jan. 25, 1940 | Jan. 25, 1940 | 1 | 1 | |
| 19th Parliament ⁶ | 1st | May 16, 1940 | Nov. 5, 1940 | 174 | 61 | Mar. 26, 1940 ³ Apr. 17, 1940 ⁴ Apr. 16, 1945 ⁵ 5 y. |
| | 2nd | Nov. 7, 1940 | Jan. 21, 1942 | 441 | 105 | |
| | 3rd | Jan. 22, 1942 | Jan. 27, 1943 | 371 | 124 | |
| | 4th | Jan. 28, 1943 | Jan. 26, 1944 | 364 | 120 | |
| | 5th | Jan. 27, 1944 | Jan. 31, 1945 | 371 | 136 | |
| | 6th | Mar. 19, 1945 | Apr. 16, 1945 | 29 | 19 | |
| 20th Parliament..... | 1st | Sept. 6, 1945 | Dec. 18, 1945 | 104 | 76 | June 11, 1945 ³ Aug. 9, 1945 ⁴ Apr. 30, 1949 ⁵ 3 y., 8 m., 22 d. |
| | 2nd | Mar. 14, 1946 | Aug. 31, 1946 | 171 | 118 | |
| | 3rd | Jan. 30, 1947 | July 17, 1947 | 169 | 115 | |
| | 4th | Dec. 5, 1947 | June 30, 1948 | 209 | 119 | |
| | 5th | Jan. 26, 1949 | Apr. 30, 1949 | 95 | 59 | |
| 21st Parliament..... | 1st | Sept. 15, 1949 | Dec. 10, 1949 | 87 | 64 | June 27, 1949 ³ Aug. 25, 1949 ⁴ June 13, 1953 ⁵ 3 y., 9 m., 20 d. |
| | 2nd | Feb. 16, 1950 | June 30, 1950 | 135 | 90 | |
| | 3rd | Aug. 29, 1950 | Jan. 29, 1951 | 154 | 17 | |
| | 4th | Jan. 30, 1951 | Oct. 9, 1951 | 253 | 105 | |
| | 5th | Oct. 9, 1951 | Dec. 29, 1951 | 82 | 56 | |
| | 6th | Feb. 28, 1952 | Nov. 20, 1952 | 267 | 87 | |
| | 7th | Nov. 20, 1952 | May 14, 1953 | 176 | 108 | |
| 22nd Parliament..... | 1st | Nov. 12, 1953 | June 26, 1954 | 227 | 139 | Aug. 10, 1953 ³ Oct. 8, 1953 ⁴ Aug. 12, 1957 ⁵ 3 y., 6 m., 5 d. |
| | 2nd | Jan. 7, 1955 | July 28, 1955 | 203 | 140 | |
| | 3rd | Jan. 10, 1956 | Aug. 14, 1956 | 218 | 152 | |
| | 4th | Nov. 26, 1956 | Jan. 8, 1957 | 44 ⁷ | 5 | |
| | 5th | Jan. 8, 1957 | Apr. 12, 1957 | 95 | 71 | |
| 23rd Parliament..... | 1st | Oct. 14, 1957 | ... | ... | ... | June 10, 1957 ³ Aug. 8, 1957 |

¹ The ordinary legal limit of duration for each Parliament is five years. ² Duration of Parliament in years, months and days. The life of a Parliament is counted from the date of return of election writs to the date of dissolution, both days inclusive (B.N.A. Act, Sect. 50). ³ Date of general election. ⁴ Writs returnable.

⁵ Dissolution of Parliament. ⁶ During the war years Parliament was kept in almost continuous session. When prorogation took place it was followed immediately by a new session. During long adjournments provision was made whereby the Speaker could reconvene Parliament before the date previously set for reassembly.

⁷ Includes long adjournment from Nov. 29, 1956 to Jan. 8, 1957.

Subsection 2.—The Legislature

The federal legislative authority is vested in the Parliament of Canada consisting of the Queen, an Upper House styled the Senate, and the House of Commons. Bills may originate in either the Senate or the House subject to the provisions of Sect. 53 of the British North America Act, 1867, which provides that Bills for the appropriation of any part of the public revenue or the imposition of any tax or impost shall originate in the House of Commons. Bills must pass both Houses and receive Royal Assent before becoming law. In practice most Public Bills originate in the House of Commons although there has been a marked increase recently in the introduction of Public Bills in the Senate. Private Bills usually originate in the Senate. (*See* Chap. XXIX for current legislation.)

Under Sect. 91 of the British North America Acts, 1867-1952, the legislative authority of the Parliament of Canada extends to the following matters: the amendment of the Constitution of Canada (subject to certain exceptions); the public debt and property; the regulation of trade and commerce; unemployment insurance; the raising of money by any mode or system of taxation; the borrowing of money on the public credit; postal service; the Census and statistics; militia, military and naval service, and defence; the fixing of and providing for the salaries and allowances of civil and other officers of the Government of Canada; beacons, buoys, lighthouses and Sable Island; navigation and shipping; quarantine and the establishment and maintenance of marine hospitals; sea coast and inland fisheries; ferries between a province and any British or foreign country or between two provinces; currency and coinage, banking, incorporation of banks and the issue of paper money; savings banks, weights and measures; bills of exchange and promissory notes; interest; legal tender; bankruptcy and insolvency; patents of invention and discovery; copyrights; Indians and lands reserved for the Indians; naturalization and aliens; marriage and divorce; the criminal law, except the constitution of courts of criminal jurisdiction, but including the procedure in criminal matters; the establishment, maintenance and management of penitentiaries; such classes of subjects as are expressly excepted in the enumeration of the classes of subjects by these Acts assigned exclusively to the legislatures of the provinces.

Under Sect. 95 the Parliament of Canada may make laws in relation to agriculture and immigration concurrently with provincial legislatures although federal legislation is paramount in the event of conflict. By the British North America Act, 1951 (14-15 Geo. VI, c. 32) it was declared that the Parliament of Canada might make laws in relation to old age pensions in Canada but no such law shall affect the operation of any provincial laws in relation to old age pensions.

The Senate.—From an original membership of 72 at Confederation the Senate, through the addition of new provinces and the general growth of population, now has 102 members, the latest change in representation having been made on the admission of Newfoundland to Confederation in 1949. The growth of representation in the Senate is traced in the 1940 Year Book, pp. 47-49, and is summarized by provinces in Table 7.

7.—Representation in the Senate since Confederation, 1867

| Province | 1867 | 1870 | 1871 | 1873 | 1882 | 1887 | 1892 | 1903 | 1905 | 1915-1948 | 1949-1957 |
|---------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|
| Ontario..... | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| Quebec..... | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| Atlantic Provinces..... | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 30 |
| Nova Scotia..... | 12 | 12 | 12 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| New Brunswick..... | 12 | 12 | 12 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Prince Edward Island..... | ... | ... | ... | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Newfoundland..... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 6 |
| Western Provinces..... | ... | 2 | 5 | 5 | 6 | 8 | 9 | 11 | 15 | 24 | 24 |
| Manitoba..... | ... | 2 | 2 | 3 | 3 | 3 | 4 | 4 | 4 | 6 | 6 |
| British Columbia..... | ... | ... | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 6 | 6 |
| Saskatchewan..... | ... | ... | ... | ... | ... | 2 | 2 | 4 | 4 | 6 | 6 |
| Alberta..... | ... | ... | ... | ... | ... | ... | ... | ... | 4 | 6 | 6 |
| Totals..... | 72 | 74 | 77 | 77 | 78 | 80 | 81 | 83 | 87 | 96 | 102 |

8.—Members of the Senate by Province as at Oct. 15, 1957

| | |
|---|---------------------------------|
| Speaker..... | The Hon. MARK-ROBERT DROUIN |
| Leader of the Government..... | The Hon. JOHN THOMAS HAIG |
| Leader of the Opposition..... | The Hon. WILLIAM ROSS MACDONALD |
| Clerk of the Senate and Clerk of the Parliaments. | JOHN FORBES MACNEILL |

Ranked according to seniority, by province. All Senators are entitled to the designation "The Honourable".

| Province and Name of Senator | P.O. Address | Province and Name of Senator | P.O. Address |
|--|---------------------------|--|-------------------|
| Newfoundland— (5 Senators—1 vacancy) | | Ontario— (24 Senators) | |
| BAIRD, ALEXANDER BOYD..... | St. John's | HARDY, ARTHUR CHARLES..... | Brockville |
| PETTEN, RAY..... | St. John's | MCGUIRE, WILLIAM HENRY..... | Toronto |
| PRATT, CALBERT C..... | St. John's | WILSON, CAIRINE REAY..... | Ottawa |
| BASHA, MICHAEL G..... | Curling | LAMBERT, NORMAN PLATT..... | Ottawa |
| BRADLEY, FREDERICK G..... | Bonavista | HAYDEN, SALTER ADRIAN..... | Toronto |
| Prince Edward Island— (3 Senators—1 vacancy) | | PATERSON, NORMAN MCLEOD..... | Fort William |
| GRANT, THOMAS VINCENT..... | Montague | EULER, WILLIAM DAUM..... | Kitchener |
| BARBOUR, GEORGE H..... | Charlottetown | DAVIES, WILLIAM RUPERT..... | Toronto |
| INMAN, F. ELSIE..... | Montague | CAMPBELL, GORDON PETER..... | Toronto |
| Nova Scotia— (9 Senators—1 vacancy) | | TAYLOR, WILLIAM HORACE..... | Brantford |
| QUINN, FELIX PATRICK..... | Bedford | BISHOP, CHARLES LAWRENCE..... | Ottawa |
| ROBERTSON, WISHART MCLEA..... | Truro | ROEBUCK, ARTHUR WENTWORTH..... | Toronto |
| KINLEY, JOHN JAMES..... | Lunenburg | FARQUHAR, THOMAS..... | Little Current |
| McDONALD, JOHN ALEXANDER..... | Halifax | FRASER, WILLIAM ALEXANDER..... | Trenton |
| COMEAU, JOSEPH WILLIE..... | Comeauville | GOLDING, WILLIAM HENRY..... | Seaforth |
| IGNOR, GORDON B..... | Halifax | WOODROW, ALLAN L..... | Toronto |
| HAWKINS, CHARLES G..... | Milford Station | MACDONALD, WILLIAM ROSS..... | Brantford |
| SMITH, DONALD..... | Liverpool | BRADETTE, JOSEPH ARTHUR..... | Cochrane |
| CONNOLLY, HAROLD..... | Halifax | CONNOLLY, JOHN J..... | Ottawa |
| New Brunswick— (9 Senators—1 vacancy) | | ROLL, DAVID..... | Toronto |
| VENIOT, CLARENCE JOSEPH..... | Bathurst | LEONARD, T. D'ARCY..... | Toronto |
| MCLEAN, ALEXANDER NEIL..... | Saint John | WHITE, GEORGE STANLEY..... | Madoc |
| BURCHILL, GEORGE PERCIVAL..... | South Nelson | BRUNT, WILLIAM R..... | Toronto |
| FERGUSON, MURIEL MCQUEEN..... | Fredericton | SULLIVAN, JOSEPH A..... | Toronto |
| LEGER, AUREL D..... | Grand Digue | Manitoba— (5 Senators—1 vacancy) | |
| McGRAND, FRED A..... | Fredericton | HAIG, JOHN THOMAS..... | Winnipeg |
| SAVOIE, CALIXTE F..... | Moncton | BEAUBIEN, ARTHUR LUCIEN..... | St. Jean Baptiste |
| TAYLOR, AUSTIN CLAUDE..... | Salisbury | CRERAR, THOMAS ALEXANDER..... | Winnipeg |
| EMERSON, CLARENCE V..... | Saint John | HOWDEN, JOHN POWER..... | Norwood Grove |
| Quebec— (22 Senators—2 vacancies) | | WALL, WILLIAM M..... | Winnipeg |
| RAYMOND, DONAT..... | Montreal | Saskatchewan— (6 Senators) | |
| HUGGESS, ADRIAN KNATCHBULL..... | Montreal | MARCOTTE, ARTHUR..... | Ponteix |
| HOWARD, CHARLES BENJAMIN..... | Sherbrooke | HORNER, RALPH BYRON..... | Blaine Lake |
| GOUTIN, LÉON MERCIER..... | Montreal | ASELTINE, WALTER MORLEY..... | Rosetown |
| VIEU, THOMAS..... | Outremont | WOOD, THOMAS H..... | Regina |
| BOUCHARD, TÉLÉSPHORE DAMIEN..... | St. Hyacinthe | BOUCHER, WILLIAM R..... | Prince Albert |
| VAILLANCOURT, CYRILLE..... | Lévis | PEARSON, ARTHUR M..... | Lumsden |
| NICOL, JACOB..... | Sherbrooke | Alberta— (5 Senators—1 vacancy) | |
| DUPUIS, VINCENT..... | Longueuil | BLAIS, ARISTIDE..... | Edmonton |
| DESSUREAULT, JEAN MARIE..... | Quebec | GERSHAW, FRED WILLIAM..... | Medicine Hat |
| BOUFFARD, PAUL HENRI..... | Quebec | MAC KINNON, JAMES ANGUS..... | Edmonton |
| JODOIN, MARIANA BEAUCHAMP..... | Montreal | STAMBAUGH, J. WESLEY..... | Bruce |
| TREMBLAY, LEONARD D. S..... | St. Malachi | CAMERON, DONALD..... | Edmonton |
| FOURNIER, SARTE..... | Montreal | British Columbia— (6 Senators) | |
| MOLSON, H. de M..... | Montreal | FARRIS, JOHN WALLACE DE BEQUE..... | Vancouver |
| POWER, C. G..... | Quebec | TURGEON, JAMES GRAY..... | Vancouver |
| POULIOT, JEAN FRANÇOIS..... | Rivière-du-Loup | McKEEN, STANLEY STEWART..... | Vancouver |
| BOIS, HENRI CHARLES..... | St. Bruno, Chambly Co. | REID, THOMAS..... | New Westminster |
| LEFRANÇOIS, J. EUGÈNE..... | Montreal | HODGES, NANCY..... | Victoria |
| DROUIN, MARK-ROBERT..... | Quebec | SMITH, SIDNEY JOHN..... | Kamloops |
| MÉTHOT, LÉON..... | Three Rivers | | |
| MONETTE, GUSTAVE..... | Montreal | | |

The House of Commons.—The British North America Act, 1867, provided that in respect of representation in the House of Commons the Province of Quebec should have the fixed number of sixty-five members and that there should be assigned to each of the other provinces such a number of members as would bear the same proportion to the number of its population as the number sixty-five bears to the number of the population of Quebec. This Act also provided that on the completion of a census in 1871 and of each subsequent decennial census the representation of the several provinces should be readjusted from time to time provided the proportionate representation of the provinces as prescribed by the Act was not thereby disturbed.

In the session of 1946 the House of Commons adopted a resolution stating that the effect of the provisions of the British North America Act relating to representation had not been satisfactory in that proportionate representation of the provinces according to population had not been maintained and that a more equitable apportionment of members to the various provinces could be effected if readjustments were made on the basis of the population of all the provinces taken as a whole. The Act was amended accordingly in 1946 to provide a new rule to regulate representation in the House of Commons. Generally speaking, representation was fixed as follows:—

The membership assigned to each province shall be computed by dividing the total population of the provinces by two hundred and fifty-four and by dividing the population of each province by the quotient so obtained.

This rule, employed in the redistribution of representation made in 1947, was effective in the general election of 1949.

After the completion of the 1951 Census it was apparent that as a result of a wartime shift of population a substantial reduction in the representation of the Province of Saskatchewan would ensue under the rules then regulating representation. Accordingly in an effort to eliminate sharp reductions in provincial representation from one census to another the British North America Act was again amended to provide representation on the following basis:—

“Sect. 51.—(1) Subject as hereinafter provided, the number of members of the House of Commons shall be two hundred and sixty-three and the representation of the provinces therein shall forthwith upon the coming into force of this section and thereafter on the completion of each decennial census be readjusted by such authority, in such manner, and from such time as the Parliament of Canada from time to time provides, subject and according to the following rules:—

“1. There shall be assigned to each of the provinces a number of members computed by dividing the total population of the provinces by two hundred and sixty-one and by dividing the population of each province by the quotient so obtained, disregarding, except as hereinafter in this section provided, the remainder, if any, after the said process of division.

“2. If the total number of members assigned to all the provinces pursuant to rule one is less than two hundred and sixty-one, additional members shall be assigned to the provinces (one to a province) having remainders in the computation under rule one commencing with the province having the largest remainder and continuing with the other provinces in the order of the magnitude of their respective remainders until the total number of members assigned is two hundred and sixty-one.

“3. Notwithstanding anything in this section, if upon completion of a computation under rules one and two, the number of members to be assigned to a province is less than the number of senators representing the said province, rules one and two shall cease to apply in respect of the said province, and there shall be assigned to the said province a number of members equal to the said number of senators.

“4. In the event that rules one and two cease to apply in respect of a province then, for the purpose of computing the number of members to be assigned to the provinces in respect of which rules one and two continue to apply, the total population of the provinces shall be reduced by the number of the population of the province in respect of which rules one and two have ceased to apply and the number two hundred and sixty-one shall be reduced by the number of members assigned to such province pursuant to rule three.

"5. On any such readjustment the number of members for any province shall not be reduced by more than fifteen per cent below the representation to which such province was entitled under rules one to four of this subsection at the last preceding readjustment of the representation of that province, and there shall be no reduction in the representation of any province as a result of which that province would have a smaller number of members than any other province that according to the results of the then last decennial census did not have a larger population; but for the purposes of any subsequent readjustment of representation under this section any increase in the number of members of the House of Commons resulting from the application of this rule shall not be included in the divisor mentioned in rules one to four of this subsection.

"6. Such readjustment shall not take effect until the termination of the then existing Parliament.

"(2) The Yukon Territory as constituted by chapter forty-one of the Statutes of Canada, 1901, shall be entitled to one member, and such other part of Canada not comprised within a province as may from time to time be defined by the Parliament of Canada shall be entitled to one member." (R.S.C. 1952, c. 304.)

The principal effect of these new rules is that the representation of any province shall not be reduced by more than 15 p.c. at any one readjustment subject however to the qualification that the rule shall not work out in such manner that the representation of a province with a smaller population shall be greater than any province with a larger population.

Subsequently Parliament enacted a measure, "An Act to readjust the Representation in the House of Commons, 1952", effective in the general election of 1953, which provided that representation in the House of Commons shall be on the following basis:—

"Sect. 2.—Eighty-five members of the House of Commons shall be elected for the Province of Ontario, seventy-five for the Province of Quebec, twelve for the Province of Nova Scotia, ten for the Province of New Brunswick, fourteen for the Province of Manitoba, twenty-two for the Province of British Columbia, four for the Province of Prince Edward Island, seventeen for the Province of Saskatchewan, seventeen for the Province of Alberta, seven for the Province of Newfoundland, one for the Yukon Territory and one for Mackenzie district of the Northwest Territories, thus making a total of two hundred and sixty-five members." (R.S.C. 1952, c. 344.)

The number of representatives of each province elected at each of the 23 general elections since Confederation is given in Table 9.

9.—Representation in the House of Commons as at Federal General Elections 1867-1957

| Province or Territory | 1867 | 1872 | 1874 1878 | 1882 | 1887 1891 | 1896 1900 | 1904 | 1908 1911 | 1917 1921 | 1925 1926 1930 | 1935 1940 1945 | 1949 | 1953 1957 |
|--------------------------|------------|------------|--------------|------------|--------------|--------------|------------|--------------|--------------|----------------------|----------------------|------------|--------------|
| Ontario..... | 82 | 88 | 88 | 92 | 92 | 92 | 86 | 86 | 82 | 82 | 82 | 83 | 85 |
| Quebec..... | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 73 | 75 |
| Nova Scotia..... | 19 | 21 | 21 | 21 | 21 | 20 | 18 | 18 | 16 | 14 | 12 | 13 | 12 |
| New Brunswick..... | 15 | 16 | 16 | 16 | 16 | 14 | 13 | 13 | 11 | 11 | 10 | 10 | 10 |
| Manitoba..... | ... | 4 | 4 | 5 | 5 | 7 | 10 | 10 | 15 | 17 | 17 | 16 | 14 |
| British Columbia..... | ... | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 13 | 14 | 16 | 18 | 22 |
| Prince Edward Island.... | ... | ... | 6 | 6 | 6 | 5 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Saskatchewan..... | ... | ... | ... | ... | 4 | 4 | 10 | 10 | 16 | 21 | 21 | 20 | 17 |
| Alberta..... | ... | ... | ... | ... | | | | 7 | 12 | 16 | 17 | 17 | 17 |
| Yukon..... | } | ... | ... | ... | ... | ... | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Mackenzie River, N.W.T. | | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | | 1 |
| Newfoundland..... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 7 | 7 |
| Totals..... | 181 | 200 | 206 | 211 | 215 | 213 | 214 | 221 | 235 | 245 | 245 | 262 | 265 |

Under their parliamentary system of representation, based on a "constitution similar in principle to that of the United Kingdom", the people of Canada elect representatives having various political party affiliation as shown in Table 10. In a general election, the Canadian electorate not only determines what political party leader shall be called on to form the Government of the day, but it also decides which of the parties is to become the Official Opposition. Her Majesty's Loyal Opposition occupies an essential place in constitutions based on the British parliamentary system, in that its function is to oppose or criticize in debate the Government in power—an essential to good government at all times. The Official Opposition is founded, like such institutions as the Cabinet and the Prime Ministership, on unwritten custom that has become firmly established. Although the position of Leader of the Opposition is not recognized in the British North America Act, it received statutory acknowledgment in the Canadian Parliament in 1905 when the Senate and House of Commons Act (4-5 Edw. VII, c. 43, sect. 2) provided an additional sessional allowance to "the member occupying the recognized position of Leader of the Opposition in the House of Commons".

10.—Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons as Elected at the Twenty-Third General Election, June 10, 1957 and Revised to Oct. 15, 1957.

| | |
|-------------------------------------|--------------------------------------|
| Speaker | The Hon. ROLAND MICHENER |
| Prime Minister | The Rt. Hon. JOHN GEORGE Diefenbaker |
| Leader of the Opposition | The Rt. Hon. LOUIS St. Laurent |
| Clerk of the House of Commons | LÉON J. RAYMOND |

NOTE.—The vote is summarized by provinces in Table 12, p. 57. The leaders of the political parties are indicated by asterisks (*). For Parliamentary Assistants, see p. 44. This information, except the population of constituencies, has been supplied by the Chief Electoral Officer, Ottawa. Party affiliations are unofficial. P.C.=Progressive Conservative; Lib.=Liberal; C.C.F.=Co-operative Commonwealth Federation; S.C.=Social Credit; Ind. Lib.=Independent Liberal; Ind.=Independent; Ind. P.C.=Independent Progressive Conservative; L.-Lab.=Liberal Labour.

| Province and Electoral District | Popu- lation, Census 1956 | Voters on List | Total Votes Polled | Votes Polled by Mem- ber | Name of Member | P.O. Address | Party Affil- iation |
|---|------------------------------------|----------------------|--------------------------|--------------------------------------|-------------------------|---------------------|---------------------------|
| | No. | No. | No. | No. | | | |
| Newfoundland— (7 members) | | | | | | | |
| Bonavista-Twillingate.. | 48,354 | 23,972 | 10,577 | 9,158 | Hon. J. W. PICKERSGILL. | Ottawa, Ont..... | Lib. |
| Burin-Burgeo..... | 46,362 | 18,584 | Acclamation | | C. W. CARTER..... | St. John's..... | Lib. |
| Grand Falls-White Bay- Labrador..... | 71,416 | 33,656 | 15,539 | 11,681 | T. G. W. ASHBOURNE.... | Twillingate..... | Lib. |
| Humber-St. George's.... | 64,683 | 28,318 | 15,499 | 10,272 | H. M. BATTEN..... | Corner Brook..... | Lib. |
| St. John's East..... | 66,132 | 32,912 | 19,647 | 10,312 | J. A. McGRATH..... | St. John's..... | P.C. |
| St. John's West..... | 62,921 | 32,139 | 19,490 | 10,539 | Hon. W. J. BROWNE..... | St. John's..... | P.C. |
| Trinity-Conception..... | 55,206 | 27,658 | 12,106 | 8,360 | L. T. STICK..... | Bay Roberts..... | Lib. |
| Prince Edward Island— (4 members) | | | | | | | |
| Kings..... | 17,853 | 10,177 | 8,902 | 4,598 | J. A. MACDONALD..... | Cardigan..... | P.C. |
| Prince..... | 38,007 | 19,213 | 16,463 | 8,119 | O. H. PHILLIPS..... | Alberton..... | P.C. |
| Queens..... | 43,425 | 24,834 | 41,853 | 11,597 | Hon. J. A. MACLEAN..... | Beaton's Mills..... | P.C. |
| | | | | 10,651 | H. MACQUARRIE..... | Victoria..... | P.C. |
| Nova Scotia— (12 members) | | | | | | | |
| Antigonish..... | | | | | | | |
| Guysborough..... | 26,878 | 14,654 | 11,966 | 6,053 | A. R. MACDONALD..... | Antigonish..... | P.C. |
| Cape Breton North and Victoria..... | 46,874 | 23,985 | 19,724 | 9,097 | R. MUIR..... | Sydney Mines..... | P.C. |
| Cape Breton South..... | 83,152 | 43,360 | 37,056 | 14,894 | D. MACINNIS..... | Glace Bay..... | P.C. |
| Colchester-Hants..... | 59,529 | 33,640 | 28,440 | 15,231 | C. F. KENNEDY..... | Truro..... | P.C. |
| Cumberland..... | 39,598 | 22,815 | 18,577 | 10,065 | R. C. COATES..... | Amherst..... | P.C. |
| Digby-Annapolis-Kings | 71,076 | 38,642 | 32,153 | 18,534 | Hon. G. C. NOWLAN..... | Wolfville..... | P.C. |
| Halifax..... | 197,943 | 108,433 | 163,067 | 41,141 | R. McCLEAVE..... | Birch Cove..... | P.C. |
| | | | | 41,099 | E. MORRIS..... | Halifax..... | P.C. |
| Inverness-Richmond.... | 32,833 | 18,925 | 15,305 | 8,035 | A. J. MACEachen..... | Inverness..... | Lib. |
| Pictou..... | 44,566 | 25,470 | 22,521 | 12,208 | R. MACEWAN..... | New Glasgow..... | P.C. |
| Queens-Lunenburg..... | 46,981 | 29,372 | 24,620 | 12,372 | L. R. CROUSE..... | Lunenburg..... | P.C. |
| Shelburne-Yarmouth- Claire..... | 45,287 | 25,652 | 20,701 | 10,734 | T. A. M. KIRK..... | Yarmouth..... | Lib. |

10.—Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons as Elected at the Twenty-Third General Election, June 10, 1957 and Revised to Oct. 15, 1957—continued.

| Province and Electoral District | Population, Census 1956 | Voters on List | Total Votes Polled | Votes Polled by Member | Name of Member | P.O. Address | Party Affiliation |
|---------------------------------|-------------------------|----------------|--------------------|------------------------|----------------------------------|--------------------------------|-------------------|
| | No. | No. | No. | No. | | | |
| New Brunswick— | | | | | | | |
| (10 members) | | | | | | | |
| Charlotte..... | 24,497 | 14,290 | 12,338 | 6,393 | A. W. STUART..... | St. Andrews..... | Lib. |
| Gloucester..... | 64,119 | 28,191 | 22,780 | 13,052 | H. J. ROYCHAUD..... | Caraquet..... | Lib. |
| Kent..... | 27,492 | 13,021 | 11,212 | 6,424 | H. J. MICHAUD..... | Buctouche..... | Lib. |
| Northumberland— | | | | | | | |
| Miramichi..... | 47,223 | 22,890 | 18,598 | 8,596 | G. R. McWILLIAM..... | Newcastle..... | Lib. |
| Restigouche— | | | | | | | |
| Madawaska..... | 76,708 | 34,790 | 29,217 | 15,776 | J. C. VAN HORNE..... | Campbellton..... | P.C. |
| Royal..... | 37,105 | 21,208 | 17,210 | 10,051 | Hon. A. J. BROOKS..... | Sussex..... | P.C. |
| Saint John-Albert..... | 92,335 | 53,747 | 41,647 | 21,983 | T. M. BELL..... | Saint John..... | P.C. |
| Victoria-Carleton..... | 42,093 | 21,906 | 17,082 | 9,845 | G. W. MONTGOMERY..... | Woodstock..... | P.C. |
| Westmorland..... | 85,414 | 47,710 | 39,687 | 19,873 | H. J. MURPHY..... | Moncton..... | Lib. |
| York-Sunbury..... | 57,630 | 33,283 | 27,260 | 13,356 | J. C. MACRAE..... | Fredericton..... | P.C. |
| Quebec— | | | | | | | |
| (75 members) | | | | | | | |
| Argenteuil-Deux- | | | | | | | |
| Montagnes..... | 55,069 | 29,676 | 24,356 | 10,084 | P. VALOIS..... | Lachute..... | Lib. |
| Beauce..... | 59,290 | 28,067 | 24,253 | 12,384 | R. POULIN..... | St. Martin..... | Ind. |
| Beauharnois-Salaberry. | 53,811 | 30,973 | 21,671 | 14,030 | R. CAUCHON..... | Salaberry-de-Valleyfield..... | Lib. |
| Bellechasse..... | 32,546 | 15,925 | 10,998 | 7,960 | O. LAFLAMME..... | Quebec..... | Lib. |
| Berthier-Maskinongé- | | | | | | | |
| Delanaudière..... | 47,423 | 24,921 | 19,697 | 10,418 | J. LANGLOIS..... | St. Justin..... | Lib. |
| Bonaventure..... | 43,240 | 19,801 | 16,194 | 8,161 | N. ARSENAULT..... | Quebec..... | P.C. |
| Brome-Missisquoi..... | 40,563 | 22,246 | 17,996 | 9,274 | J. L. DESLIÈRES..... | Sutton..... | Lib. |
| Chambly-Rouville..... | 45,350 | 24,580 | 18,897 | 11,302 | Y. L'HEUREUX..... | Beloeil..... | Lib. |
| Champlain..... | 58,321 | 29,949 | 24,035 | 13,767 | I. ROCHFORD..... | Cap de la Madeleine..... | Lib. |
| Chapleau..... | 65,456 | 30,216 | 22,735 | 11,428 | C. N. BARRÈS..... | Amos..... | Lib. |
| Charlevoix..... | 47,430 | 23,013 | 18,506 | 10,182 | A. MALTAIS..... | Sillery..... | Lib. |
| Châteauguay-Hunting- | | | | | | | |
| don-Laprairie..... | 52,413 | 27,498 | 19,536 | 10,066 | J. BOUCHER..... | Laprairie..... | Lib. |
| Chicoutimi..... | 70,668 | 33,346 | 29,119 | 15,090 | R. GAUTHIER..... | Chicoutimi..... | Lib. |
| Compton-Frontenac..... | 44,048 | 20,998 | 18,040 | 9,328 | J. A. BLANCHETTE..... | Chartierville..... | Lib. |
| Dorchester..... | 38,737 | 18,635 | 15,878 | 8,054 | J. A. LANDRY..... | Ste. Germaine..... | Lib. |
| Drummond- | | | | | | | |
| Arthabaska..... | 83,407 | 41,231 | 32,480 | 11,462 | S. BOULANGER..... | Victoriaville..... | Ind. |
| Gaspé..... | 63,941 | 29,508 | 22,521 | 10,916 | R. ENGLISH..... | Rivière-au-Renard..... | Lib. |
| Gatineau..... | 48,721 | 24,797 | 18,505 | 10,770 | R. LEDUC..... | Maniwaki..... | P.C. |
| Hull..... | 76,231 | 41,083 | 35,292 | 15,551 | A. CARON..... | Hull..... | Lib. |
| Iles-de-la-Madeleine..... | 11,556 | 5,141 | 4,671 | 2,472 | C.-A. CANNON..... | Quebec..... | Lib. |
| Joliette-L'Assomption- | | | | | | | |
| Montcalm..... | 87,101 | 44,899 | 24,097 | 19,445 | M. BRETON..... | Joliette..... | Lib. |
| Kamouraska..... | 35,907 | 18,025 | 12,647 | 6,489 | B. CHAROT..... | St. Antonin..... | Ind. |
| Labelle..... | 43,705 | 21,460 | 17,627 | 9,406 | H. COURTEMANCEE..... | Mont Laurier..... | Ind. |
| Lac-Saint-Jean..... | 42,918 | 19,474 | 16,671 | 10,129 | A. GAUTHIER..... | Alma..... | P.C. |
| Lapointe..... | 68,106 | 32,078 | 26,288 | 13,671 | A. BRASSARD..... | Pierreville..... | Lib. |
| Lévis..... | 44,284 | 24,858 | 20,677 | 14,693 | M. BOURGET..... | Jonquière..... | Lib. |
| Longueuil..... | 85,540 | 46,376 | 33,347 | 19,314 | A. VINCENT..... | Lévis..... | Lib. |
| Lotbinière..... | 38,625 | 18,409 | 16,335 | 8,372 | R. O'HURLEY..... | St. Lambert..... | Lib. |
| Matapédia-Matane..... | 67,441 | 29,888 | 22,831 | 11,637 | L. THIBAUT..... | St. Gilles..... | P.C. |
| Mégantic..... | 64,958 | 31,485 | 23,983 | 15,390 | J. LAFONTAINE..... | Matane..... | Lib. |
| Montmagny-L'Islet..... | 39,840 | 20,280 | 16,560 | 9,772 | Hon. J. LESAGE..... | Thetford Mines..... | Lib. |
| Nicolet-Yamaska..... | 45,880 | 23,654 | 19,272 | 9,805 | Hon. P. COMTOIS..... | Quebec..... | Lib. |
| Pontiac-Témiscamingue | 42,432 | 20,485 | 16,658 | 8,642 | H. PROUDFOOT..... | St. Thomas-de-Pierreville..... | P.C. |
| Portneuf..... | 46,976 | 25,059 | 19,622 | 11,330 | P. GAUTHIER..... | Fort Coulonge..... | Lib. |
| Quebec East..... | 87,323 | 51,011 | 38,465 | 27,404 | Rt. Hon. L. S. ST. LAURENT*..... | Deschambault..... | Lib. |
| Quebec South..... | 54,949 | 36,726 | 28,929 | 17,709 | F. G. POWER..... | Quebec..... | Lib. |
| Quebec West..... | 55,413 | 31,848 | 25,219 | 11,828 | R. BÉGIN..... | Quebec..... | Lib. |
| Quebec-Montmorency..... | 98,331 | 50,642 | 39,584 | 24,964 | W. LA CROIX..... | Quebec..... | Lib. |
| Richelieu-Verchères..... | 53,068 | 28,748 | 19,904 | 16,003 | L.-J.-L. CARDIN..... | Ste. Anne-de-Sorel..... | Lib. |
| Richmond-Wolfe..... | 57,963 | 29,094 | 22,308 | 10,300 | E.-O. GINGRAS..... | Marbleton..... | Lib. |

10.—Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons as Elected at the Twenty-Third General Election, June 10, 1957 and Revised to Oct. 15, 1957—continued.

| Province and Electoral District | Population, Census 1956 | Voters on List | Total Votes Polled | Votes Polled by Member | Name of Member | P.O. Address | Party Affiliation |
|---|-------------------------|----------------|--------------------|------------------------|-------------------------|------------------------------|-------------------|
| | No. | No. | No. | No. | | | |
| Quebec—concluded | | | | | | | |
| Rimouski..... | 70,683 | 33,423 | 24,616 | 14,632 | G. LEGARÉ..... | Rimouski..... | Lib. |
| Roberval..... | 52,980 | 22,351 | 18,248 | 10,860 | G. VILLENEUVE..... | Mistassini..... | Lib. |
| St. Hyacinthe-Bagot... St. Jean-Iberville- Napierville..... | 58,517 | 32,270 | 25,876 | 13,865 | J.-H.-T. RICARD..... | St. Hyacinthe.... | P.C. |
| St. Maurice-Laféche... Saguenay..... | 57,871 | 29,961 | 26,087 | 13,427 | J.-A. MÉNARD..... | St. Jean..... | Lib. |
| Shedden..... | 70,451 | 43,487 | 31,900 | 18,714 | J.-A. RICHARD..... | Shawinigan Falls.. | Lib. |
| Sherbrooke..... | 56,655 | 30,695 | 19,911 | 11,407 | L. BISSON..... | Quebec..... | Lib. |
| Stanstead..... | 60,388 | 31,146 | 23,932 | 14,897 | M. BOIVIN..... | Granby..... | Lib. |
| Témiscouata..... | 64,463 | 35,354 | 26,355 | 16,324 | M. GINGUES..... | Sherbrooke..... | Lib. |
| Terrebonne..... | 41,348 | 22,402 | 17,417 | 9,827 | L.-E. ROBERGE..... | Rock Island..... | Lib. |
| Three Rivers..... | 58,424 | 26,865 | 19,926 | 11,558 | J.-P. ST. LAURENT..... | Quebec..... | Lib. |
| Vaudreuil-Soulanges... Villeneuve..... | 81,895 | 44,522 | 32,871 | 19,515 | R. RAYMOND..... | St. Jérôme..... | Lib. |
| | 62,932 | 35,837 | 29,920 | 15,004 | Hon. L. BALCER..... | Three Rivers..... | P.C. |
| | 32,361 | 18,157 | 13,384 | 9,055 | L.-R. BEAUDOIN..... | Hudson..... | Lib. |
| | 74,366 | 34,527 | 26,170 | 9,893 | A. DUMAS..... | Malartic..... | Lib. |
| Island of Montreal and Ile Jesus— | | | | | | | |
| Cartier..... | 48,952 | 25,665 | 16,719 | 11,955 | L. D. CRESTOHL..... | Montreal..... | Lib. |
| Dollard..... | 84,052 | 48,439 | 32,347 | 21,917 | G. ROULEAU..... | Montreal..... | Lib. |
| Hochelaga..... | 75,004 | 45,848 | 27,082 | 20,641 | R. EUDES..... | Montreal..... | Lib. |
| Jacques Cartier- Lasalle..... | 110,931 | 66,015 | 49,046 | 23,378 | R. J. PRATT..... | Dorval..... | P.C. |
| Lafontaine..... | 50,584 | 33,284 | 21,410 | 15,501 | J.-G. RATELLE..... | Montreal..... | Lib. |
| Laurier..... | 47,055 | 29,523 | 19,170 | 11,336 | Hon. L. CHEVRIER..... | Pont-Viau..... | Lib. |
| Laval..... | 117,525 | 66,683 | 43,926 | 26,254 | L. DEMERS..... | Montreal..... | Lib. |
| Maisonneuve- Rosemont..... | 94,124 | 58,345 | 35,981 | 25,041 | J.-P. DESCHATELETS..... | Montreal..... | Lib. |
| Mercier..... | 124,913 | 67,240 | 40,778 | 30,024 | M. MONETTE..... | Pointe-aux- Trembles..... | Lib. |
| Mount Royal..... | 106,636 | 62,883 | 39,092 | 23,325 | A. A. MACNAUGHTON.... | Montreal..... | Lib. |
| Notre-Dame-de-Grâce... Outremont-St. Jean... Papineau..... | 93,983 | 58,990 | 43,463 | 24,517 | Hon. W. M. HAMILTON.. | Montreal..... | P.C. |
| | 58,446 | 33,461 | 19,430 | 13,840 | R. BOURQUE..... | Outremont..... | Lib. |
| | 81,066 | 49,790 | 31,534 | 24,373 | A. MEUNIER..... | Montreal..... | Lib. |
| St. Ann..... | 40,783 | 22,937 | 16,035 | 7,771 | G. LOISELLE..... | Montreal..... | Ind. Lib. |
| St. Antoine- Westmount..... | 61,900 | 40,373 | 26,615 | 14,485 | Hon. G. C. MARLER.... | Ottawa, Ont..... | Lib. |
| St. Denis..... | 65,286 | 39,986 | 25,260 | 17,027 | A. DENIS..... | Montreal..... | Lib. |
| St. Henri..... | 68,959 | 37,269 | 27,937 | 12,489 | J.-A. BONNIER..... | Montreal..... | Lib. |
| St. Jacques..... | 63,653 | 40,642 | 19,609 | 7,900 | R. BEAUDRY..... | Montreal..... | Lib. |
| St. Lawrence- St. George..... | 44,510 | 27,682 | 15,047 | 7,759 | C. RICHARDSON..... | Montreal..... | Lib. |
| Ste. Marie..... | 60,539 | 35,823 | 20,998 | 12,532 | H. DUPUIS..... | Montreal..... | Lib. |
| Verdun..... | 78,262 | 47,100 | 30,490 | 18,695 | Y. LEDUC..... | Verdun..... | Lib. |
| Ontario— (85 members) | | | | | | | |
| Algoma East..... | 40,838 | 25,425 | 16,656 | 8,574 | Hon. L. B. PEARSON.... | Ottawa..... | Lib. |
| Algoma West..... | 63,727 | 32,813 | 23,764 | 10,202 | G. E. NIXON..... | Sault Ste. Marie.. | P.C. |
| Brantford..... | 51,813 | 30,628 | 24,143 | 9,902 | J. WRATTEN..... | Brantford..... | P.C. |
| Brant-Haldimand..... | 52,246 | 28,494 | 23,358 | 12,858 | J. A. CHARLTON..... | Paris..... | P.C. |
| Bruce..... | 28,658 | 17,051 | 14,420 | 8,225 | A. E. ROBINSON..... | Kincardine..... | P.C. |
| Carleton..... | 92,590 | 55,353 | 45,564 | 27,865 | R. A. BELL..... | Britannia Bay.... | P.C. |
| Cochrane..... | 42,720 | 20,808 | 15,039 | 6,626 | J. A. A. HAVEL..... | Kapuskasing..... | Lib. |
| Dufferin-Simcoe..... | 48,859 | 24,375 | 18,337 | 11,852 | W. E. ROWE..... | Newton Robinson | P.C. |
| Durham..... | 35,827 | 20,584 | 16,674 | 7,331 | P. VIVIAN..... | Port Hope..... | P.C. |
| Elgin..... | 59,114 | 32,783 | 25,032 | 14,822 | J. A. MCBAIN..... | St. Thomas..... | P.C. |
| Essex East..... | 93,859 | 51,737 | 39,242 | 22,023 | Hon. P. MARTIN..... | Windsor..... | Lib. |
| Essex South..... | 51,613 | 27,825 | 21,035 | 10,006 | R. D. THRASHER..... | Amherstburg..... | P.C. |
| Essex West..... | 99,948 | 54,669 | 35,881 | 15,246 | D. BROWN..... | Windsor..... | Lib. |
| Fort William..... | 51,450 | 28,357 | 22,679 | 8,552 | D. MCIVOR..... | Fort William..... | Lib. |
| Glengarry-Prescott.... Gravelly-Dundas..... | 44,984 | 24,313 | 20,721 | 8,241 | O. F. VILLENEUVE..... | Maxville..... | P.C. |
| | 37,541 | 22,037 | 14,571 | 8,967 | A. C. CASSELMAN..... | Prescott..... | P.C. |
| Grey-Bruce..... | 36,200 | 21,565 | 18,446 | 10,707 | E. A. WINKLER..... | Hanover..... | P.C. |
| Grey North..... | 38,183 | 23,125 | 19,411 | 11,028 | P. V. NOBLE..... | Shallow Lake..... | P.C. |
| Halton..... | 68,297 | 40,095 | 30,730 | 17,795 | A. BEST..... | Georgetown..... | P.C. |
| Hamilton East..... | 67,147 | 39,581 | 27,967 | 10,528 | Q. MARTIN..... | Hamilton..... | P.C. |

10.—Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons as Elected at the Twenty-Third General Election, June 10, 1957 and Revised to Oct. 15, 1957—continued.

| Province and Electoral District | Population, Census 1956 | Voters on List | Total Votes Polled | Votes Polled by Member | Name of Member | P.O. Address | Party Affiliation |
|------------------------------------|-------------------------|----------------|--------------------|------------------------|------------------------------------|---------------------|-------------------|
| | No. | No. | No. | No. | | | |
| Ontario—concluded | | | | | | | |
| Hamilton South..... | 97,438 | 56,962 | 41,432 | 16,085 | R. M. T. McDONALD.... | Hamilton..... | P.C. |
| Hamilton West..... | 72,232 | 42,946 | 31,292 | 16,533 | Hon. ELLEN L. FAIR- CLOUGH..... | Hamilton..... | P.C. |
| Hastings-Frontenac.... | 46,950 | 26,987 | 18,873 | 11,602 | G. S. WHITE..... | Madoc..... | P.C. |
| Hastings South..... | 62,804 | 35,653 | 28,446 | 14,798 | L. GRILLS..... | Belleville..... | P.C. |
| Huron..... | 46,426 | 25,119 | 21,385 | 12,323 | E. CARDIFF..... | Brussels..... | P.C. |
| Kenora-Rainy River.... | 67,356 | 31,915 | 22,669 | 10,701 | W. M. BENDICKSON.... | Kenora..... | L.-Lab. |
| Kent..... | 68,212 | 37,862 | 27,065 | 13,977 | B. HUFFMAN..... | Blenheim..... | Lib. |
| Kingston..... | 65,680 | 38,246 | 29,082 | 14,739 | W. J. HENDERSON..... | Kingston..... | Lib. |
| Lambton-Kent..... | 41,220 | 23,500 | 17,628 | 9,745 | E. J. CAMPBELL..... | Wallaceburg..... | P.C. |
| Lambton West..... | 67,350 | 36,680 | 27,655 | 13,096 | J. W. MURPHY..... | Camlachie..... | P.C. |
| Lanark..... | 37,903 | 22,038 | 16,285 | 11,629 | W. G. BLAIR ² | Perth..... | P.C. |
| Leeds..... | 45,199 | 25,491 | 21,827 | 11,034 | H. STANTON..... | Seeley's Bay..... | P.C. |
| Lincoln..... | 111,740 | 63,057 | 49,009 | 25,420 | J. SMITH..... | St. Catharines..... | P.C. |
| London..... | 74,865 | 46,290 | 34,062 | 19,804 | G. E. HALPENNY..... | London..... | P.C. |
| Middlesex East..... | 73,524 | 43,064 | 33,336 | 20,287 | H. O. WHITE..... | Glanworth..... | P.C. |
| Middlesex West..... | 37,508 | 21,329 | 17,252 | 9,075 | W. H. A. THOMAS..... | Strathroy..... | P.C. |
| Niagara Falls..... | 70,950 | 39,661 | 23,688 | 12,594 | W. L. HOUCK..... | Niagara Falls..... | Lib. |
| Nickel Belt..... | 60,098 | 27,550 | 20,878 | 8,819 | J. L. GAUTHIER..... | Sudbury..... | Lib. |
| Nipissing..... | 58,258 | 29,890 | 22,106 | 12,528 | J. R. GARLAND..... | North Bay..... | Lib. |
| Norfolk..... | 46,122 | 24,875 | 19,526 | 10,885 | J. E. KNOWLES..... | Langton..... | P.C. |
| Northumberland..... | 38,205 | 22,280 | 19,372 | 10,062 | B. THOMPSON..... | Brighton..... | P.C. |
| Ontario..... | 99,039 | 56,133 | 43,666 | 18,468 | Hon. M. STARR..... | Oshawa..... | P.C. |
| Ottawa East..... | 52,473 | 33,219 | 25,943 | 18,216 | J. T. RICHARD..... | Ottawa..... | Lib. |
| Ottawa West..... | 68,255 | 44,344 | 34,472 | 19,434 | G. McLLRAITH..... | Ottawa..... | Lib. |
| Oxford..... | 65,228 | 36,675 | 30,049 | 20,404 | W. NESBITT..... | Woodstock..... | P.C. |
| Parry Sound-Muskoka.... | 52,556 | 30,745 | 24,392 | 14,014 | G. H. AIKEN..... | Gravenhurst..... | P.C. |
| Peel..... | 33,108 | 47,755 | 35,286 | 19,818 | J. PALETT..... | Port Credit..... | P.C. |
| Perth..... | 53,410 | 32,284 | 26,044 | 16,663 | Hon. J. W. MONTEITH..... | Stratford..... | P.C. |
| Peterborough..... | 59,729 | 35,418 | 27,595 | 16,598 | G. K. FRASER..... | Lakefield..... | P.C. |
| Port Arthur..... | 78,111 | 38,829 | 28,675 | 12,228 | D. M. FISHER..... | Port Arthur..... | C.C.F. |
| Prince Edward-Lennox | 35,666 | 20,155 | 15,627 | 9,003 | C. A. MULLIGAN..... | Napanee..... | P.C. |
| Renfrew North..... | 45,802 | 23,530 | 19,530 | 10,227 | J. M. FORGIE..... | Pembroke..... | Lib. |
| Renfrew South..... | 34,403 | 19,035 | 16,663 | 8,782 | J. W. BASKIN..... | Renfrew..... | P.C. |
| Russell..... | 88,306 | 47,050 | 36,198 | 20,673 | J. O. GOUR..... | Casselman..... | Lib. |
| Simcoe East..... | 54,006 | 28,574 | 23,069 | 12,497 | P. B. RYNARD..... | Orillia..... | P.C. |
| Simcoe North..... | 40,754 | 24,428 | 18,507 | 11,437 | H. SMITH..... | Barrie..... | P.C. |
| Storont..... | 56,452 | 31,163 | 23,676 | 12,505 | A. P. LAVIGNE..... | Cornwall..... | Lib. |
| Sudbury..... | 67,868 | 36,355 | 26,190 | 11,927 | R. MITCHELL..... | Sudbury..... | Lib. |
| Timiskaming..... | 49,891 | 24,980 | 19,680 | 6,936 | A. PETERS..... | New Liskeard..... | C.C.F. |
| Timmins..... | 45,469 | 22,567 | 17,688 | 6,776 | M. MARTIN..... | Timmins..... | C.C.F. |
| Victoria..... | 45,661 | 28,064 | 22,016 | 14,153 | C. W. HODGSON..... | Haliburton..... | P.C. |
| Waterloo North..... | 95,256 | 55,707 | 38,032 | 15,972 | N. C. SCHNEIDER..... | Preston..... | Lib. |
| Waterloo South..... | 53,518 | 31,536 | 24,982 | 11,699 | W. ANDERSON..... | Galt..... | P.C. |
| Welland..... | 78,656 | 43,447 | 31,612 | 13,241 | W. H. McMILLAN..... | Thorold..... | Lib. |
| Wellington-Huron..... | 31,712 | 18,375 | 15,297 | 9,421 | M. HOWE..... | Arthur..... | P.C. |
| Wellington South ³ | 50,928 | 29,591 | 21,496 | 11,632 | A. D. HALES..... | Guelph..... | P.C. |
| Wentworth..... | 79,421 | 45,560 | 33,252 | 19,037 | F. E. LENNARD..... | Dundas..... | P.C. |
| York Centre..... | 127,591 | 74,980 | 50,007 | 23,295 | F. C. STINSON..... | Willowdale..... | P.C. |
| York East..... | 73,284 | 48,216 | 34,073 | 17,236 | R. H. McGREGOR..... | Toronto..... | P.C. |
| York-Humber..... | 78,202 | 49,860 | 36,007 | 18,449 | MARGARET AITKEN..... | Toronto..... | P.C. |
| York North..... | 70,595 | 42,662 | 30,594 | 17,770 | C. A. CATHERS..... | Newmarket..... | P.C. |
| York-Scarborough..... | 167,310 | 104,302 | 76,166 | 42,299 | F. C. McGEE..... | Don Mills..... | P.C. |
| York South..... | 105,979 | 64,875 | 42,742 | 16,624 | W. G. BEECH..... | Toronto..... | P.C. |
| York West..... | 110,050 | 67,532 | 49,302 | 27,035 | J. B. HAMILTON..... | Etobicoke..... | P.C. |
| City of Toronto— | | | | | | | |
| Broadview..... | 57,494 | 34,760 | 21,805 | 12,815 | Hon. G. HEES..... | Toronto..... | P.C. |
| Danforth..... | 84,617 | 53,575 | 37,230 | 18,604 | R. H. SMALL..... | Toronto..... | P.C. |
| Davenport..... | 62,430 | 32,583 | 22,574 | 8,989 | M. D. MORTON..... | Toronto..... | P.C. |
| Eglinton..... | 71,271 | 51,048 | 36,875 | 25,046 | Hon. D. M. FLEMING..... | Toronto..... | P.C. |
| Greenwood..... | 56,637 | 35,331 | 23,572 | 12,422 | Hon. J. M. MACDONNELL | Toronto..... | P.C. |
| High Park..... | 59,850 | 34,853 | 24,353 | 11,034 | J. W. KUCIERA..... | Toronto..... | P.C. |
| Parkdale..... | 56,650 | 32,868 | 22,212 | 9,882 | A. MALONEY..... | Toronto..... | P.C. |
| Rosedale..... | 55,088 | 33,733 | 23,228 | 12,415 | D. J. WALKER..... | Toronto..... | P.C. |
| St. Paul's..... | 54,262 | 37,450 | 23,556 | 13,243 | Hon. R. MICHENER..... | Toronto..... | P.C. |
| Spadina..... | 85,490 | 41,134 | 24,720 | 10,348 | C. E. REA..... | Toronto..... | P.C. |
| Trinity..... | 63,801 | 32,162 | 19,742 | 7,068 | IS. HADIASZ..... | Toronto..... | Lib. |

¹ Resigned Sept. 20, 1957.
July 15, 1957.

² Died June 16, 1957; see Table 11 for by-election.

³ Delayed election

10.—Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons as Elected at the Twenty-Third General Election, June 10, 1957 and Revised to Oct. 15, 1957—continued.

| Province and Electoral District | Population, Census 1956 | Voters on List | Total Votes Polled | Votes Polled by Member | Name of Member | P.O. Address | Party Affiliation |
|-----------------------------------|-------------------------|----------------|--------------------|------------------------|---------------------------------|-------------------------|-------------------|
| No. | No. | No. | No. | No. | | | |
| Manitoba— | | | | | | | |
| (14 members) | | | | | | | |
| Brandon-Souris..... | 62,365 | 36,430 | 28,308 | 17,389 | W. G. DINSDALE..... | Brandon..... | P.C. |
| Churchill..... | 48,999 | 21,851 | 16,114 | 6,191 | R. SIMPSON..... | Flin Flon..... | P.C. |
| Dauphin..... | 41,304 | 22,320 | 16,967 | 6,706 | F. S. ZAPLETNY..... | Dauphin..... | C.C.F. |
| Lisgar..... | 46,756 | 25,260 | 19,114 | 8,708 | G. MUIR..... | Roland..... | P.C. |
| Marquette..... | 49,190 | 26,447 | 22,260 | 9,695 | N. MANDZIUK..... | Oakburn..... | P.C. |
| Portage-Neepawa..... | 55,875 | 28,152 | 21,646 | 9,248 | G. C. FAIRFIELD..... | Portage la Prairie..... | P.C. |
| Provencher..... | 40,658 | 19,795 | 13,590 | 4,739 | W. H. JORGENSEN..... | Ste. Elizabeth..... | P.C. |
| St. Boniface..... | 59,422 | 33,235 | 25,215 | 7,777 | L. DENISET..... | St. Boniface..... | Lib. |
| Selkirk..... | 49,047 | 23,999 | 16,973 | 7,432 | W. S. BRYCE..... | Selkirk..... | C.C.F. |
| Springfield..... | 41,814 | 21,322 | 15,825 | 5,951 | J. SCHULZ..... | Winnipeg..... | C.C.F. |
| Winnipeg North..... | 97,945 | 58,129 | 42,562 | 20,354 | A. STEWART..... | Winnipeg..... | C.C.F. |
| Winnipeg North Centre..... | 77,917 | 44,155 | 28,348 | 15,229 | S. H. KNOWLES..... | Winnipeg..... | C.C.F. |
| Winnipeg South..... | 98,248 | 60,165 | 46,529 | 23,855 | G. CHOWN..... | Winnipeg..... | P.C. |
| Winnipeg South Centre..... | 80,500 | 52,542 | 38,376 | 19,022 | Hon. G. CHURCHILL..... | Winnipeg..... | P.G. |
| Saskatchewan— | | | | | | | |
| (17 members) | | | | | | | |
| Assiniboia..... | 46,444 | 25,728 | 22,181 | 10,389 | H. R. ARGUE..... | Kayville..... | C.C.F. |
| Humboldt-Melfort..... | 49,221 | 25,774 | 20,614 | 7,336 | H. A. BRYSON..... | Tisdale..... | C.C.F. |
| Kindersley..... | 47,724 | 26,288 | 22,602 | 8,605 | M. JOHNSON..... | Beadle..... | C.C.F. |
| Mackenzie..... | 45,971 | 22,971 | 17,937 | 7,295 | A. M. NICHOLSON..... | Sturgis..... | C.C.F. |
| Meadow Lake..... | 37,840 | 17,378 | 12,831 | 4,140 | J. H. HARRISON..... | Medstead..... | Lib. |
| Melville..... | 42,219 | 22,844 | 19,653 | 7,949 | Rt. Hon. J. G. GARDINER..... | Lemberg..... | Lib. |
| Moose Jaw-Lake Centre..... | 64,947 | 36,183 | 29,077 | 9,834 | L. H. LEWRY..... | Moose Jaw..... | C.C.F. |
| Moose Mountain..... | 42,897 | 24,755 | 20,023 | 6,770 | E. McCULLOUGH..... | Manor..... | C.C.F. |
| Prince Albert..... | 56,121 | 28,537 | 23,396 | 12,349 | Rt. Hon. J. G. DIFEN- BAKER* | Prince Albert..... | P.C. |
| Qu'Appelle..... | 39,894 | 21,283 | 18,266 | 6,217 | Hon. A. HAMILTON..... | Saskatoon..... | P.C. |
| Regina City..... | 81,235 | 50,319 | 41,066 | 14,561 | A. C. ELLIS..... | Regina..... | C.C.F. |
| Rosetown-Biggar..... | 45,303 | 26,099 | 21,843 | 9,846 | M. J. COLDWELL* | Ottawa, Ont..... | C.C.F. |
| Rosthern..... | 48,815 | 24,490 | 18,929 | 6,828 | W. A. TUCKER..... | Rosthern..... | Lib. |
| Saskatoon..... | 73,154 | 45,318 | 33,927 | 12,905 | H. F. JONES..... | Saskatoon..... | P.C. |
| Swift Current-Maple Creek..... | 55,313 | 31,682 | 26,021 | 9,637 | I. W. STUDER..... | Lac Pelletier..... | Lib. |
| The Battlefords..... | 52,300 | 26,589 | 21,360 | 8,320 | M. CAMPBELL..... | Neilburg..... | C.C.F. |
| Yorkton..... | 51,267 | 28,080 | 22,540 | 9,712 | G. H. CASTLEDEN..... | Yorkton..... | C.C.F. |
| Alberta— | | | | | | | |
| (17 members) | | | | | | | |
| Acadia..... | 46,105 | 25,313 | 19,628 | 10,348 | V. QUELCH..... | Ottawa, Ont..... | S.C. |
| Athabasca..... | 56,611 | 25,535 | 18,095 | 7,453 | J. M. DECHÈNE..... | Bonnevillier..... | Lib. |
| Battle River-Camrose..... | 57,576 | 30,040 | 22,580 | 10,945 | J. A. SMITH..... | Vermilion..... | S.C. |
| Bow River..... | 47,454 | 24,712 | 19,034 | 7,383 | C. E. JOHNSTON..... | Calgary..... | S.C. |
| Calgary North..... | 98,777 | 56,884 | 40,295 | 21,783 | Hon. D. S. HARKNESS..... | Calgary..... | P.C. |
| Calgary South..... | 95,245 | 55,852 | 39,939 | 21,065 | A. SMITH..... | Calgary..... | P.C. |
| Edmonton East..... | 70,755 | 39,296 | 27,670 | 10,967 | A. A. HOLOWACH..... | Edmonton..... | S.C. |
| Edmonton-Strathcona..... | 91,293 | 50,165 | 37,092 | 13,124 | S. H. S. THOMPSON..... | Edmonton..... | S.C. |
| Edmonton West..... | 106,778 | 58,878 | 41,165 | 14,173 | M. LAMBERT..... | Edmonton..... | P.C. |
| Jasper-Edson..... | 62,652 | 31,684 | 21,994 | 8,795 | C. YULL..... | Barhead..... | S.C. |
| Lethbridge..... | 62,332 | 27,952 | 20,749 | 10,910 | J. H. BLACKMORE..... | Cardston..... | S.C. |
| Macleod..... | 50,177 | 25,061 | 19,415 | 8,411 | E. G. HANSELL..... | Vulcan..... | S.C. |
| Medicine Hat..... | 56,918 | 29,510 | 23,551 | 10,960 | H. A. OLSON..... | Idesleigh..... | S.C. |
| Peace River..... | 69,725 | 33,696 | 23,971 | 10,386 | S. E. LOW*..... | Ottawa, Ont..... | S.C. |
| Red Deer..... | 52,075 | 27,605 | 20,143 | 9,519 | F. D. SHAW..... | Innisfail..... | S.C. |
| Vegreville..... | 45,322 | 23,603 | 18,318 | 7,327 | P. STEFURA..... | Chipman..... | S.C. |
| Wetaskiwin..... | 53,321 | 25,257 | 17,545 | 7,968 | R. THOMAS..... | Wetaskiwin..... | S.C. |
| British Columbia— | | | | | | | |
| (22 members) | | | | | | | |
| Burnaby-Coquitlam..... | 67,202 | 37,353 | 28,460 | 10,947 | E. REGIER..... | East Burnaby..... | C.C.F. |
| Burnaby-Richmond..... | 73,030 | 42,560 | 30,983 | 7,999 | T. J. IRWIN..... | White Rock..... | S.C. |
| Cariboo..... | 60,464 | 28,694 | 19,627 | 8,292 | B. R. LEBOE..... | Prince George..... | S.C. |
| Coast-Capilano..... | 91,051 | 54,575 | 42,414 | 16,443 | J. SINCLAIR..... | North Vancouver..... | Lib. |
| Comox-Alberni..... | 65,414 | 34,623 | 24,160 | 8,598 | T. S. BARNETT..... | Alberni..... | C.C.F. |
| Esquimalt-Saanich..... | 59,812 | 35,934 | 28,768 | 15,434 | Hon. G. R. PEARKES..... | Victoria..... | P.C. |
| Fraser Valley..... | 75,518 | 39,071 | 28,891 | 11,091 | A. B. PATTERSON..... | Abbotsford..... | S.C. |

10.—Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons as Elected at the Twenty-Third General Election, June 10, 1957 and Revised to Oct. 15, 1957—concluded.

| Province and Electoral District | Population, Census 1956 | Voters on List | Total Votes Polled | Votes Polled by Member | Name of Member | P.O. Address | Party Affiliation |
|---|-------------------------|----------------|--------------------|------------------------|-----------------------|-------------------|-------------------|
| | No. | No. | No. | No. | | | |
| British Columbia—concl. | | | | | | | |
| Kamloops..... | 59, 139 | 29, 225 | 21, 381 | 10, 029 | Hon. E. D. FULTON.... | Kamloops..... | P.C. |
| Kootenay East..... | 36, 845 | 19, 035 | 14, 951 | 4, 670 | J. BYRNE..... | Kimberley..... | Lib. |
| Kootenay West..... | 53, 633 | 27, 474 | 20, 647 | 8, 996 | H. W. HERRIDGE..... | Nakusp..... | C.C.F. |
| Nanaimo..... | 52, 805 | 30, 625 | 23, 415 | 8, 770 | C. CAMERON..... | Lantzville..... | C.C.F. |
| New Westminster..... | 104, 632 | 62, 634 | 48, 077 | 16, 916 | G. HAHN..... | North Surrey..... | S.C. |
| Okanagan Boundary..... | 58, 903 | 32, 094 | 24, 622 | 7, 465 | F. C. CHRISTIAN..... | Penticton..... | S.C. |
| Okanagan-Revelstoke..... | 32, 744 | 17, 044 | 13, 615 | 5, 376 | G. W. McLEOD..... | Enderby..... | S.C. |
| Skeena..... | 56, 664 | 21, 206 | 14, 206 | 5, 517 | F. HOWARD..... | Terrace..... | C.C.F. |
| Vancouver-Burrard..... | 59, 862 | 41, 708 | 29, 704 | 13, 691 | J. TAYLOR..... | Vancouver..... | P.C. |
| Vancouver Centre..... | 43, 346 | 33, 906 | 22, 162 | 9, 087 | D. JUNG..... | Vancouver..... | P.C. |
| Vancouver East..... | 57, 302 | 33, 727 | 22, 919 | 10, 782 | H. E. WINCH..... | Vancouver..... | C.C.F. |
| Vancouver-Kingsway..... | 61, 720 | 37, 483 | 26, 620 | 9, 040 | A. MACDONALD..... | Vancouver..... | C.C.F. |
| Vancouver Quadra..... | 69, 103 | 44, 246 | 34, 258 | 21, 719 | Hon. H. C. GREEN..... | Vancouver..... | P.C. |
| Vancouver South..... | 77, 716 | 47, 399 | 36, 108 | 16, 058 | E. J. BROOME..... | Vancouver..... | P.C. |
| Victoria..... | 81, 559 | 51, 401 | 40, 436 | 17, 981 | A. D. McPHILLIPS..... | Victoria..... | P.C. |
| Yukon Territory— (1 member) | | | | | | | |
| Yukon..... | 12, 190 | 5, 516 | 4, 892 | 2, 422 | J. A. SIMMONS..... | Whitehorse..... | Lib. |
| Northwest Territories— (1 member) | | | | | | | |
| Mackenzie River..... | 12, 492 | 6, 434 | 4, 043 | 2, 686 | M. A. HARDIE..... | Yellowknife..... | Lib. |

11.—By-elections from the Date of the General Election, June 10, 1957 to Oct. 15, 1957¹

| Electoral District and Province | Date of By-election | Voters on List | Candidates | Votes Polled | Name of New Member | P.O. Address | Party Affiliation |
|---------------------------------|---------------------|----------------|-------------|--------------|--------------------|-------------------|-------------------|
| | | No. | No. | No. | | | |
| Lanark..... | Aug. 26, 1957 | 22, 053 | Acclamation | | GEORGE H. DOUCETTE | Carleton Place... | P.C. |

¹ By-elections from Oct. 15, 1957 to date of going to press are included in an Appendix to this volume.

Indemnities and Allowances.—Members of the Senate receive a sessional allowance at the rate of \$8,000 per annum. In addition they receive at the end of each calendar year an annual expense allowance of \$2,000 which is subject to income tax. Members of the House of Commons are paid a sessional allowance at the rate of \$8,000 per annum. In addition they receive \$2,000 as an expense allowance paid at the end of each calendar year. This allowance, except that for Ministers of the Crown and for Leaders of the Opposition in the House and in the Senate, is not subject to income tax. The remuneration of the Prime Minister is \$25,000 a year and of a Cabinet Minister and the Leader of the Opposition \$15,000 a year in addition to the sessional allowance and expense allowance each receives as a Member of Parliament. A Cabinet Minister is also entitled to a motor car allowance of \$2,000. The Speakers of the Senate and of the House of Commons each

receive, besides the sessional allowance and expense allowance, a salary of \$9,000 and a motor car allowance of \$1,000 and each is entitled to \$3,000 in lieu of a residence. The Deputy Speaker of the House of Commons receives a salary of \$6,000 and an allowance of \$1,500 in lieu of a residence. The Deputy Chairman of Committees receives an annual allowance of \$2,000. Parliamentary Assistants to the Ministers of the Crown receive \$8,000 sessional allowance as Members of Parliament, \$4,000 a year as Parliamentary Assistants and the \$2,000 expense allowance paid to all Members of Parliament.

The Federal Franchise.—The present federal franchise laws are contained in the Canada Elections Act (R.S.C. 1952, c. 23). The franchise is conferred upon all Canadian citizens or British subjects, men and women who have attained the age of 21 years and who have been ordinarily resident in Canada for 12 months prior to polling day at a federal election and ordinarily resident in the electoral district on the date of the issue of the writ ordering such election. Persons denied the right to vote are:—

- (1) The Chief Electoral Officer and the Assistant Chief Electoral Officer;
- (2) Judges appointed by the Governor General in Council;
- (3) The returning officer for each electoral district;
- (4) Persons undergoing punishment as inmates of any penal institution for the commission of any offence;
- (5) Indians ordinarily resident on an Indian reserve who were not members of His Majesty's Forces in World Wars I or II or who did not execute a waiver of exemption under the Indian Act from taxation on and in respect of personal property;
- (6) Persons restrained of their liberty or deprived of the management of their property by reason of mental disease;
- (7) Persons disqualified under any law relating to the disqualification of electors for corrupt and illegal practices.

The Canadian Forces Voting Regulations set out in the Schedule to the Canada Elections Act prescribe voting procedure for members of the Armed Forces of Canada and also for veterans in receipt of treatment or domiciliary care in certain institutions.

12.—Voters on the Lists and Votes Polled at the Federal General Elections of 1945, 1949, 1953 and 1957

NOTE.—Corresponding statistics for the general elections of 1911, 1917, 1921 and 1925 are given in the 1926 Year Book, p. 82; those for 1926 in the 1945 edition, p. 66; those for 1930 and 1935 in the 1948-49 edition, p. 94; and for 1940 in the 1956 edition, p. 81.

| Province or Territory | Voters on the Lists | | | | Votes Polled | | | |
|--|---------------------|------------------|------------------|------------------|----------------------|----------------------|----------------------|----------------------|
| | 1945 | 1949 | 1953 | 1957 | 1945 | 1949 | 1953 | 1957 |
| | No. | No. | No. | No. | No. | No. | No. | No. |
| Newfoundland..... | ... | 182,439 | 194,715 | 197,239 | ... | 105,190 | 111,768 | 92,858 |
| Prince Edward Island..... | 54,794 | 55,772 | 55,469 | 54,224 | 63,807 ¹ | 68,393 ¹ | 66,562 ¹ | 67,218 ¹ |
| Nova Scotia..... | 362,754 | 373,585 | 380,836 | 384,948 | 312,954 ² | 338,928 ² | 334,855 ² | 394,130 ² |
| New Brunswick..... | 262,261 | 286,723 | 287,657 | 291,036 | 204,273 | 225,877 | 225,390 | 237,001 |
| Quebec..... | 1,956,225 | 2,177,152 | 2,352,619 | 2,504,978 | 1,433,591 | 1,610,510 | 1,565,400 | 1,815,586 |
| Ontario..... | 2,457,937 | 2,718,118 | 2,894,150 | 3,100,456 | 1,831,806 | 2,042,294 | 1,938,959 | 2,295,033 |
| Manitoba..... | 433,921 | 451,882 | 465,374 | 473,802 | 327,794 | 324,079 | 276,422 | 351,827 |
| Saskatchewan..... | 445,601 | 472,884 | 480,532 | 484,318 | 379,539 | 375,471 | 356,479 | 392,266 |
| Alberta..... | 430,430 | 492,228 | 548,747 | 591,043 | 315,863 | 341,222 | 343,258 | 431,184 |
| British Columbia..... | 545,077 | 673,782 | 730,882 | 802,017 | 433,402 | 464,785 | 475,456 | 596,424 |
| Yukon Territory ³ | 3,445 | 9,064 | 5,028 | 5,516 | 2,164 | 6,823 | 3,818 | 4,892 |
| Northwest Territories ⁴ | ... | ... | 5,682 | 6,434 | ... | ... | 3,596 | 4,043 |
| Totals..... | 6,952,445 | 7,893,629 | 8,401,691 | 8,896,011 | 5,305,193 | 5,903,572 | 5,701,963 | 6,682,462 |

¹ Each voter in the double-member constituency of Queens County, P.E.I. had two votes; in 1957, 24,834 voters on the list cast 41,853 votes. ² Each voter in the double-member constituency of Halifax, N.S. had two votes; in 1957, 108,433 voters on the list cast 163,067 votes.

³ Electoral District of Yukon.

⁴ Electoral District of Mackenzie River.

Subsection 3.—The Judiciary

The Federal Judiciary

The Parliament of Canada is empowered by Sect. 101 of the British North America Act to provide from time to time for the constitution, maintenance and organization of a general Court of Appeal for Canada and for the establishment of any additional courts for the better administration of the laws of Canada. Under this provision, Parliament has established the Supreme Court of Canada, the Exchequer Court of Canada and certain miscellaneous courts.

Supreme Court of Canada.—This Court, first established in 1875 and now governed by the Supreme Court Act (R.S.C. 1952, c. 259), consists of a chief justice, who is called the Chief Justice of Canada, and eight puisne judges. The chief justice and the puisne judges are appointed by the Governor in Council and they hold office during good behaviour but are removable by the Governor General on address of the Senate and the House of Commons. They cease to hold office upon attaining the age of 75 years. The Court sits at Ottawa and exercises general appellate jurisdiction throughout Canada in civil and criminal cases. The Court is also required to consider and advise upon questions referred to it by the Governor in Council and it may also advise the Senate or the House of Commons on Private Bills referred to the Court under any rules or orders of the Senate or the House of Commons.

Appeals may be brought from any final judgment of the highest court of final resort in a province in any case where the amount or value of the matter in controversy exceeds the sum of \$10,000. An appeal may be brought from any other final judgment with leave of the highest court of final resort in the province; if such court refuses to grant leave the Supreme Court of Canada may grant leave to appeal. The Supreme Court may grant leave to appeal from any judgment whether final or not. Appeals in respect of indictable offences are regulated by the Criminal Code. Appeals from federal courts are regulated by the statute establishing such courts. The judgment of the Supreme Court of Canada in all cases is final and conclusive.

13.—Chief Justice and Judges of the Supreme Court of Canada as at Oct. 15, 1957¹

(In order of seniority)

| Name | Date of Appointment |
|--|---------------------------|
| The Hon. Chief Justice PATRICK KERWIN..... | July 1, 1954 ² |
| The Hon. Justice ROBERT TASCHEREAU..... | Feb. 9, 1940 |
| The Hon. Justice I. C. RAND..... | Apr. 22, 1943 |
| The Hon. Justice ROY L. KELLOCK..... | Oct. 3, 1944 |
| The Hon. Justice CHARLES H. LOCKE..... | June 3, 1947 |
| The Hon. Justice JOHN R. CARTWRIGHT..... | Dec. 23, 1949 |
| The Hon. Justice J. H. GERALD FAUTEUX..... | Dec. 23, 1949 |
| The Hon. Justice DOUGLAS CHARLES ABBOTT..... | July 1, 1954 |

¹ One vacancy at Oct. 15, 1957.

² First appointed as a Judge of the Supreme Court, July 20, 1935

Exchequer Court.—The Exchequer Court of Canada was first established in 1875 as part of the Supreme Court of Canada but is now a separate court governed by the Exchequer Court Act (R.S.C. 1952, c. 98). The Court consists of a president and four puisne judges who are appointed by the Governor in Council. The president and the puisne judges hold office during good behaviour but may be removed by the Governor General on address of the Senate and the House of Commons. They cease to hold office upon attaining the age of 75 years. The Court sits at Ottawa and also at any other place in Canada where sittings may be fixed by the Court. The jurisdiction of the Court extends to cases where claims are made by or against the Crown in right of Canada. Proceedings against the Crown are taken by petition of right pursuant to the Petition of Right Act (R.S.C. 1952, c. 210).

An appeal lies to the Supreme Court of Canada from any final judgment of the Exchequer Court in which the amount in controversy exceeds \$500; an appeal also lies with leave of the Supreme Court in certain cases where the amount in controversy does not exceed \$500 or where the judgment is not final.

The Exchequer Court also exercises admiralty jurisdiction in Canada. This was first conferred in 1891 by the Admiralty Act (54-55 Vict., c. 29) and is now governed by the Admiralty Act (R.S.C. 1952, c. 1). Under this Statute the Exchequer Court is continued as a Court of Admiralty. The president and puisne judges of the Exchequer Court exercise admiralty jurisdiction throughout the whole of Canada. In addition, Canada is divided into various admiralty districts; a district judge in admiralty is appointed for each district. Appeals to the Supreme Court of Canada from judgments of the president or the puisne judges are governed by the general appeal provisions in the Exchequer Court Act. Appeals may be taken from a final judgment of a district judge in admiralty either to the Exchequer Court or direct to the Supreme Court of Canada.

Miscellaneous Courts.—*Railway Act.*—The Railway Act, 1903 (R.S.C. 1952, c. 234) established the Board of Railway Commissioners for Canada as a court of record; by the Transport Act, 1938 (R.S.C. 1952, c. 271) the name was changed to the Board of Transport Commissioners for Canada. This Court exercises jurisdiction with respect to railway matters. The Governor in Council is given jurisdiction to vary any order of the Board and an appeal lies from the Board to the Supreme Court of Canada upon a question of jurisdiction or a question of law.

Bankruptcy Act.—By virtue of Sect. 91 (21) of the British North America Act, 1867, Parliament has exclusive legislative jurisdiction in relation to bankruptcy and insolvency. By the Bankruptcy Act (R.S.C. 1952, c. 14) the superior courts of the provinces are constituted bankruptcy courts; original jurisdiction is conferred upon the trial courts and appellate jurisdiction is conferred upon the appeal courts of the provinces.

Income Tax Appeal Board.—By the Income Tax Act (R.S.C. 1952, c. 148) an Appeal Board is established consisting of a chairman and not fewer than two or more than four members with jurisdiction over appeals against income tax assessments. A further appeal may be taken to the Exchequer Court.

Provincial Judiciaries*

Certain provisions of the British North America Act govern to some extent the provincial judiciaries. Under Sect. 92 (14) the legislature of each province exclusively may make laws in relation to the administration of justice in the province including the constitution, maintenance and organization of provincial courts both of civil and of criminal jurisdiction. Sect. 96 provides that the Governor General shall appoint the judges of the superior, district, and county courts in each province except those of the courts of probate in Nova Scotia and New Brunswick. Sect. 100 provides that the salaries, allowances and pensions of judges of the superior, district and county courts (except the courts of probate in Nova Scotia and New Brunswick) are to be fixed and provided by the Parliament of Canada and these are set out in the Judges Act (R.S.C. 1952, c. 157). Under

* More detailed information concerning provincial judiciaries is given in the 1954 Year Book, pp. 48-55.

Sect. 99 the judges of the superior courts hold office during good behaviour but are removable by the Governor General on address of the Senate and House of Commons. The tenure of office of district and county court judges is fixed by the Judges Act as being during good behaviour and their residence within the county or union of counties for which the court is established.

All provinces have minor courts with limited civil and criminal jurisdiction, the judges of which are appointed by provincial authority as, for example, Justices of the Peace, Magistrates and Juvenile Court Judges. Except in Quebec there are County or District Courts of each province with limited jurisdiction varying from \$500 to \$2,500 in amount. Each province has a Superior Court with virtually unlimited jurisdiction variously known as Court of Queen's Bench, Supreme Court, Superior Court, etc. There is also a Court of Appeal in each province.

Section 2.—Provincial and Territorial Governments*

In each of the provinces, the Queen is represented by a Lieutenant-Governor appointed by the Governor General in Council. The Lieutenant-Governor acts on the advice and with the assistance of his Ministry or Executive Council which is responsible to the Legislature and resigns office under circumstances similar to those described at p. 43 concerning the Federal Government.

The Legislature of each province is unicameral, consisting of the Lieutenant-Governor and a Legislative Assembly except for the Province of Quebec where there is a Legislative Council as well as a Legislative Assembly.

The Legislative Assembly is elected by the people for a statutory term of five years but may be dissolved within that period by the Lieutenant-Governor on the advice of the Premier of the province.

The source of legislative authority of the Provincial Legislatures is the British North America Act, 1867 (30-31 Vict., c. 3 and amendments). Under Sect. 92 of the Act the Legislature of each province exclusively may make laws in relation to the following matters: amendment of the constitution of the province except as regards the Lieutenant-Governor; direct taxation within the province; borrowing of money on the credit of the province; establishment and tenure of provincial offices and appointment and payment of provincial officers; the management and sale of public lands belonging to the province and of the timber and wood thereon; the establishment, maintenance and management of public and reformatory prisons in and for the province; the establishment, maintenance and management of hospitals, asylums, charities and eleemosynary institutions in and for the province, other than marine hospitals; municipal institutions in the province; shop, saloon, tavern, auctioneer and other licences issued for the raising of provincial or municipal revenue; local works and undertakings other than interprovincial or international lines of ships, railways, canals, telegraphs, etc., or works which, though wholly situated within one province, are declared by the Federal Parliament to be for the general advantage either of Canada or of two or more provinces; the incorporation of companies with provincial objects; the solemnization of marriage in the province; property and civil rights in the province; the administration of justice in the province including the constitution, maintenance and organization of provincial courts both of civil and of criminal jurisdiction including procedure in civil matters in these courts; the imposition of punishment by fine, penalty or imprisonment for enforcing any law of the province relating to any of the aforesaid subjects; generally all matters of a merely local or private nature in the province.

Further, in and for each province the Legislature exclusively may, under Sect. 93, make laws in relation to education subject to certain restrictions relating to the establishment of schools by religious minorities. These powers with similar restrictions were conferred on the more recently admitted provinces on their inclusion as units in the federation.

* The information given in Subsections 1 to 10 of this Section is brought up to Mar. 31, 1957, except where otherwise indicated. Provincial elections held between the date shown in each case and the date of going to press are covered in an Appendix to this volume.

The Provincial Legislatures may also make laws under Sect. 95 in relation to agriculture and immigration subject to any laws of the Parliament of Canada in relation to these subjects.

Provincial Franchise.—Details regarding qualifications and disqualifications of the franchise are contained in the Elections Act of each province. In general, every person, male or female, at the age of 21 years, who is a Canadian citizen or a British subject, who complies with certain residence requirements in the province and the electoral district of polling and who falls under no statutory disqualifications, is entitled to vote. These qualifications apply with modifications to voters in most provinces. The principal exception gives voting privileges to persons in Saskatchewan at the age of 18 and in Alberta and British Columbia at 19 years.

Subsection 1.—Newfoundland

The Government of Newfoundland consists of a Lieutenant-Governor, an Executive Council and a Legislative Assembly. At May 1, 1957, Colonel the Honourable Sir Leonard Outerbridge was Lieutenant-Governor of the Province; he was commissioned on Sept. 5, 1949.

The Legislative Assembly has 36 members elected for a term of five years. The Legislature elected Oct. 2, 1956 is the 31st in the history of Newfoundland and the 3rd since Confederation.

The Premier and each Cabinet Minister receives a salary of \$7,000 per annum plus a sessional indemnity of \$3,000. Each Member of the House of Assembly receives a sessional indemnity of \$3,000. An additional allowance of \$2,000 is made to the Leader of the Opposition.

14.—Legislatures of Newfoundland since Confederation and Ministry as at May 1, 1957

Legislatures 1949-57

| Date of Election | Legislature | Number of Sessions | Date of First Opening | Date of Dissolution |
|------------------|-------------|--------------------|-----------------------|---------------------|
| May 27, 1949 | 1st..... | 4 | July 13, 1949 | Nov. 3, 1951 |
| Nov. 26, 1951 | 2nd..... | 7 | Mar. 12, 1952 | Sept. 10, 1956 |
| Oct. 2, 1956 | 3rd..... | 1 | Mar. 20, 1957 | 1 |

¹ Life of Legislature not expired at May 1, 1957.

First Ministry

(Party standing at latest General Election, Oct. 2, 1956: 32 Liberals and 4 Progressive Conservatives.)

NOTE.—Date of appointment does not necessarily mean that the Minister was sworn in on date given.

| Office | Name | Date of First Appointment | Date of Present Appointment |
|---|---------------------------|---------------------------|-----------------------------|
| Premier and Minister of Economic Development..... | Hon. J. R. SMALLWOOD..... | Apr. 1, 1949 | Apr. 1, 1949 |
| Attorney General..... | Hon. L. R. CURTIS..... | Apr. 1, 1949 | Apr. 1, 1949 |
| Minister of Mines and Resources..... | Hon. W. J. KEOUGH..... | July 29, 1949 | May 1, 1957 |
| Minister of Labour..... | Hon. C. H. BALLAM..... | Apr. 4, 1950 | Apr. 4, 1950 |
| Minister of Public Welfare..... | Hon. S. J. HEFFERTON..... | July 29, 1949 | Apr. 10, 1955 |
| Minister of Finance..... | Hon. E. S. SPENCER..... | July 29, 1949 | May 1, 1957 |
| Minister of Public Works..... | Hon. J. R. CHALKER..... | Apr. 4, 1950 | May 1, 1957 |
| Minister of Education..... | Hon. F. W. ROWE..... | May 21, 1952 | May 1, 1957 |
| Minister without portfolio..... | Hon. P. J. LEWIS..... | Dec. 15, 1951 | Dec. 15, 1951 |
| Minister of Provincial Affairs..... | Hon. MYLES P. MURRAY..... | Dec. 15, 1951 | Dec. 15, 1951 |
| Solicitor General..... | Hon. MYLES P. MURRAY..... | Dec. 15, 1951 | Apr. 10, 1955 |
| Minister of Highways..... | Hon. G. J. POWER..... | Dec. 15, 1951 | May 1, 1957 |
| Minister of Fisheries..... | Hon. J. T. CHEESEMAN..... | May 1, 1957 | May 1, 1957 |
| Minister of Municipal Affairs and Supply..... | Hon. B. J. ABBOTT..... | May 1, 1957 | May 1, 1957 |
| Minister of Health..... | Hon. J. M. McGRATH..... | May 1, 1957 | May 1, 1957 |

Subsection 2.—Prince Edward Island

The Government of Prince Edward Island consists of a Lieutenant-Governor, an Executive Council and a Legislative Assembly. The Honourable T. W. L. Prowse, Lieutenant-Governor of the Province at Mar. 31, 1957, was commissioned to office on Oct. 4, 1950. Lieutenant-Governors since Confederation are cited in the 1951 Year Book, p. 86.

The General Assembly elected May 25, 1955, is the 48th in the history of Prince Edward Island Legislatures and the 23rd since Confederation. It has 30 members from 15 electoral districts who serve for a statutory term of five years. One-half of the Members of the Legislative Assembly are elected on a property vote. Each district elects one Councillor (elected on a property vote) and one Assembly member (elected on a general franchise vote).

The annual salary of the Premier is \$6,000 and each Cabinet Minister, with two exceptions, receives \$4,000; the Minister of Education and the Minister of Health each receive \$3,000. Each Member of the Assembly is paid the sum of \$1,450 for each session attended by him and an additional amount of \$500 tax free as indemnity for expenses incurred. The Speaker is paid an additional sum of \$400 and a further additional amount of \$200 tax free as an indemnity. The Leader of the Opposition is paid an additional sum of \$800 and a further additional amount of \$200 tax free for expenses incurred by him in performance of official duties.

15.—Legislatures and Premiers of Prince Edward Island 1935-57 and Ministry as at Mar. 31, 1957

Legislatures 1935-57¹

| Date of Election | Legislature | Number of Sessions | Date of First Opening | Date of Dissolution |
|------------------|-------------|--------------------|-----------------------|---------------------|
| July 23, 1935 | 18th..... | 5 | Sept. 25, 1935 | Apr. 21, 1939 |
| May 18, 1939 | 19th..... | 4 | Mar. 20, 1940 | Aug. 20, 1943 |
| Sept. 15, 1943 | 20th..... | 4 | Feb. 15, 1944 | Oct. 27, 1947 |
| Dec. 11, 1947 | 21st..... | 5 | Feb. 24, 1948 | Mar. 30, 1951 |
| Apr. 26, 1951 | 22nd..... | 6 | Oct. 23, 1951 | Apr. 27, 1955 |
| May 25, 1955 | 23rd..... | 2 | Feb. 2, 1956 | 2 |

¹ The Ministries from 1935-57 were: 19th Ministry sworn in Oct. 14, 1933 under the leadership of Hon. W. J. P. MacMillan; 20th Ministry sworn in Aug. 15, 1935 under the leadership of Hon. W. M. Lea; 21st Ministry sworn in Jan. 14, 1936 under the leadership of Hon. T. A. Campbell; 22nd Ministry sworn in May 11, 1943 under the leadership of Hon. J. Walter Jones; 23rd Ministry sworn in May 25, 1953 under the leadership of Hon. A. W. Matheson.

² Legislature not expired at Mar. 31, 1957.

Twenty-Third Ministry

(Party standing at latest General Election, May 25, 1955: 27 Liberals and 3 Progressive Conservatives.)

NOTE.—Ministers are shown at date of original appointment as a Minister and at date of appointment to present portfolio, despite the formation of a new Ministry consequent upon the appointment of a new Premier. Date of appointment does not necessarily mean that the Minister was sworn in on date given.

| Office | Name | Date of First Appointment | Date of Present Appointment |
|---|------------------------------|---------------------------|---------------------------------|
| Premier, Attorney and Advocate General and President of the Executive Council.... | HON. ALEXANDER W. MATHESON.. | May 11, 1943 | (May, 25, 1953 June 15, 1955 |
| Minister of Public Works and Minister of Industry and Natural Resources and of Fisheries..... | HON. DOUGALD MACKINNON..... | Sept. 16, 1939 | June 15, 1955 |
| Minister of Welfare and Minister of Labour... | HON. F. W. PHILLIPS..... | Apr. 3, 1956 | Apr. 3, 1956 |
| Minister of Agriculture..... | HON. EUGENE CULLEN..... | Apr. 16, 1949 | June 15, 1955 |
| Minister of Education..... | HON. KEIR CLARK..... | June 16, 1951 | June 15, 1955 |
| Provincial Secretary and Treasurer..... | HON. B. EARLE MACDONALD..... | May 25, 1953 | June 15, 1955 |
| Minister of Highways..... | HON. J. GEORGE MACKAY..... | Jan. 18, 1955 | June 15, 1955 |
| Minister of Health..... | HON. M. LORNE BONNELL..... | June 15, 1955 | June 15, 1955 |
| Minister without portfolio..... | HON. EDWARD P. FOLEY..... | June 10, 1954 | June 15, 1955 |

Subsection 3.—Nova Scotia

The Government of the Province of Nova Scotia has a Lieutenant-Governor, an Executive Council and a House of Assembly. The Honourable Alistair Fraser, Lieutenant-Governor at Mar. 31, 1957, was commissioned to office Sept. 1, 1952. Lieutenant-Governors since Confederation are cited in the 1951 Year Book, p. 87.

The Legislature has 43 members elected for five years, the maximum duration of its existence. The Legislature elected Oct. 30, 1956, was the 46th in Nova Scotia's history and the 23rd since Confederation.

The Premier of the Province receives a salary of \$12,000 per annum and each Cabinet Minister a salary of \$10,000 per annum. Each Member of the House of Assembly receives a sessional indemnity of \$2,400 and an allowance of \$1,200 for expenses incidental to the discharge of his duties. The Leader of the Opposition receives an allowance of \$3,000 in addition to his sessional indemnity.

16.—Legislatures and Premiers of Nova Scotia 1933-57 and Ministry as at Mar. 31, 1957

Legislatures 1933-57¹

| Date of Election | Legislature | Number of Sessions | Date of First Opening | Date of Dissolution |
|------------------|-------------|--------------------|-----------------------|---------------------|
| Aug. 22, 1933 | 17th..... | 4 | Mar. 1, 1934 | May 20, 1937 |
| June 29, 1937 | 18th..... | 4 | Mar. 1, 1938 | Sept. 19, 1941 |
| Oct. 28, 1941 | 19th..... | 4 | Feb. 19, 1942 | Sept. 12, 1945 |
| Oct. 28, 1945 | 20th..... | 4 | Mar. 14, 1946 | Apr. 27, 1949 |
| June 9, 1949 | 21st..... | 4 | Mar. 21, 1950 | Apr. 14, 1953 |
| May 26, 1953 | 22nd..... | 3 | Feb. 24, 1954 | Sept. 20, 1956 |
| Oct. 30, 1956 | 23rd..... | 2 | Feb. 27, 1957 | ? |

¹ The Ministries from 1933-57 were: 12th Ministry sworn in Sept. 5, 1933 under the leadership of Hon. Angus L. Macdonald; 13th Ministry sworn in July 10, 1940 under the leadership of Hon. A. S. MacMillan; 14th Ministry sworn in Sept. 8, 1945 under the leadership of Hon. Angus L. Macdonald; 15th Ministry sworn in Apr. 13, 1954 under the leadership of Hon. Harold Connolly; 16th Ministry sworn in Sept. 30, 1954 under the leadership of Hon. Henry D. Hicks; 17th Ministry sworn in Nov. 20, 1956 under the leadership of Hon. Robert L. Stanfield. ² Life of Legislature not expired at Mar. 31, 1957.

Seventeenth Ministry

(Party standing at latest General Election, Oct. 30, 1956: 24 Progressive Conservatives, 18 Liberals, 1 Co-operative Commonwealth Federation.)

NOTE.—Date of appointment does not necessarily mean that the Minister was sworn in on date given.

| Office | Name | Date of First Appointment | Date of Present Appointment |
|---|----------------------------|---------------------------|-----------------------------|
| Premier, Provincial Treasurer, Minister of Education, Chairman of the Nova Scotia Power Commission..... | HON. R. L. STANFIELD..... | Nov. 20, 1956 | Nov. 20, 1956 |
| Minister of Highways and Provincial Secretary..... | HON. G. I. SMITH..... | Nov. 20, 1956 | Nov. 20, 1956 |
| Attorney General, Minister of Public Health and Minister of Public Welfare..... | HON. R. A. DONAHOE..... | Nov. 20, 1956 | Nov. 20, 1956 |
| Minister of Lands and Forests and Minister of Municipal Affairs..... | HON. R. C. LEVY..... | Nov. 20, 1956 | Nov. 20, 1956 |
| Minister of Public Works and Minister of Labour..... | HON. S. T. PYKE..... | Nov. 20, 1956 | Nov. 20, 1956 |
| Minister of Agriculture and Marketing..... | HON. E. D. HALIBURTON..... | Nov. 20, 1956 | Nov. 20, 1956 |
| Minister of Mines and Minister of Trade and Industry..... | HON. E. A. MANSON..... | Nov. 20, 1956 | Nov. 20, 1956 |
| Minister without portfolio..... | HON. N. L. FERGUSON..... | Nov. 20, 1956 | Nov. 20, 1956 |

Subsection 4.—New Brunswick

The Government of New Brunswick has a Lieutenant-Governor, an Executive Council and a House of Assembly. The Honourable David Laurence MacLaren, Lieutenant-Governor at Mar. 31, 1957, was commissioned to office Nov. 1, 1945. Lieutenant-Governors since Confederation are cited in the 1951 Year Book, p. 89.

The Legislature elected June 18, 1956, is the 43rd in New Brunswick's history and the 16th since Confederation. It has 52 members who are elected for a statutory term of five years.

The Premier receives \$5,000 per annum in addition to the salary for any other portfolio he may hold. The salary of each Cabinet Minister is \$7,500, the amount paid as indemnity to each Member of the House of Assembly is \$2,400, plus an additional \$1,200 allowance for expenses. The Leader of the Opposition receives an additional \$3,000. An allowance of \$1,000 in addition to the regular indemnity is made to the Speaker.

17.—Legislatures and Premiers of New Brunswick 1935-57 and Ministry as at Mar. 31, 1957

Legislatures 1935-57¹

| Date of Election | Legislature | Number of Sessions | Date of First Opening | Date of Dissolution |
|------------------|-------------|--------------------|-----------------------|---------------------|
| June 27, 1935 | 11th..... | 4 | Mar. 5, 1936 | Oct. 26, 1939 |
| Nov. 20, 1939 | 12th..... | 5 | Apr. 4, 1940 | July 10, 1944 |
| Aug. 28, 1944 | 13th..... | 4 | Feb. 20, 1945 | May 18, 1948 |
| June 28, 1948 | 14th..... | 4 | Mar. 8, 1949 | July 16, 1952 |
| Sept. 22, 1952 | 15th..... | 4 | Feb. 12, 1953 | Apr. 17, 1956 |
| June 18, 1956 | 16th..... | 2 | Feb. 21, 1957 | 2 |

¹ The Ministries from 1935-57 were: 20th Ministry sworn in July 16, 1935 under the leadership of Hon. A. A. Dysart; 21st Ministry sworn in Mar. 13, 1940 under the leadership of Hon. J. B. McNair; 22nd Ministry sworn in Oct. 8, 1952 under the leadership of Hon. H. J. Flemming.

² Life of Legislature not expired at Mar. 31, 1957.

Twenty-Second Ministry

(Party standing at latest General Election, June 18, 1956: 37 Conservatives and 15 Liberals.)

NOTE.—Date of appointment does not necessarily mean that the Minister was sworn in on date given.

| Office | Name | Date of First Appointment | Date of Present Appointment |
|---|------------------------------|---------------------------|--------------------------------|
| Premier and Minister of Public Works..... | Hon. HUGH JOHN FLEMMING..... | Oct. 8, 1952 | Oct. 8, 1952 |
| Attorney General..... | Hon. WILLIAM J. WEST..... | Oct. 8, 1952 | Oct. 8, 1952 |
| Provincial Secretary-Treasurer..... | Hon. D. D. PATTERSON..... | Oct. 8, 1952 | Oct. 8, 1952 |
| Minister of Agriculture..... | Hon. C. B. SHERWOOD..... | Oct. 8, 1952 | Oct. 8, 1952 |
| Minister of Health and Social Services..... | Hon. J. F. MCINERNEY..... | Oct. 8, 1952 | Oct. 8, 1952 |
| Minister of Lands and Mines..... | Hon. N. B. BUCHANAN..... | Oct. 8, 1952 | Oct. 8, 1952 |
| Minister of Education..... | Hon. CLAUDE D. TAYLOR..... | Oct. 8, 1952 | Oct. 8, 1952 |
| Minister of Labour..... | Hon. ARTHUR E. SKALING..... | Oct. 8, 1952 | Oct. 8, 1952 |
| Minister of Industry and Development..... | Hon. J. ROGER PICHETTE..... | Oct. 8, 1952 | Oct. 8, 1952 |
| Minister of Municipal Affairs and President of the Executive Council..... | Hon. T. BARBITT PARLEE..... | Oct. 8, 1952 | { June 1, 1954 Oct. 8, 1952 |
| Minister without portfolio and Chairman of the New Brunswick Electric Power Commission..... | Hon. EDGAR FOURNIER..... | Oct. 8, 1952 | Oct. 8, 1952 |

Subsection 5.—Quebec

The Government of Quebec consists of a Lieutenant-Governor, an Executive Council, and a bicameral legislature—the Legislative Council and the Legislative Assembly. The Honourable Gaspard Fauteux, Lieutenant-Governor at Mar. 31, 1957, was commissioned to office Oct. 3, 1950. Lieutenant-Governors since Confederation are cited in the 1951 Year Book, p. 90.

The Legislative Council has 24 members nominated for life by the Lieutenant-Governor in Council. The Legislative Assembly has 93 elected members and, like the Legislative Council, has the power to bring forward Bills relating to civil and administrative matters and to the amendment or repeal of laws that already exist. A Bill to be approved by the

Lieutenant-Governor must have received the assent of both Houses. Only the Legislative Assembly can bring forward a Bill requiring the expenditure of public money. The maximum life of a Legislature is five years.

Salaries and allowances of the Premier, Members of the Executive Council, Legislative Council and Legislative Assembly are fixed according to R.S.Q. 1941, c. 7 and R.S.Q. 1941, c. 4 as amended by 1-2 Eliz. II, c. 38 and 5-6 Eliz. II, c. 51. All Members of Legislative Assembly and Legislative Council receive \$5,000 per annum as salary and \$2,000 by way of allowances; in addition, the Premier receives \$10,000 as salary, \$4,000 allowances and \$2,000 for lodging allowance; Ministers with portfolio an additional \$8,000 as salary and \$2,000 allowances; Ministers without portfolio an additional \$5,000 salary and \$2,000 allowances; the Leader of the Opposition in the Legislative Assembly \$6,000 as salary, \$2,000 allowances and \$2,000 for lodging allowance; and the Leader of the Government in the Legislative Council and the Leader of the Opposition in the Legislative Council each receive \$7,000 as salary, \$2,000 allowances and \$3,000 for office allowances.

18.—Legislatures and Premiers of Quebec 1935-57 and the Ministry and Members of the Legislative Council as at Mar. 31, 1957

Legislatures 1935-57¹

| Date of Election | Legislature | Number of Sessions | Date of First Opening | Date of Dissolution |
|------------------|-------------|--------------------|-----------------------|---------------------|
| Nov. 25, 1935 | 19th..... | 1 | Mar. 24, 1936 | June 11, 1936 |
| Aug. 17, 1936 | 20th..... | 4 | Oct. 7, 1936 | Sept. 23, 1939 |
| Oct. 25, 1939 | 21st..... | 5 | Feb. 20, 1940 | June 29, 1944 |
| Aug. 8, 1944 | 22nd..... | 4 | Feb. 7, 1945 | June 9, 1948 |
| July 28, 1948 | 23rd..... | 4 | Jan. 19, 1949 | May 28, 1952 |
| July 16, 1952 | 24th..... | 4 | Nov. 12, 1952 | Apr. 25, 1956 |
| June 20, 1956 | 25th..... | 2 | Nov. 14, 1956 | 2 |

¹ The Ministries from 1935-57 were: 16th Ministry sworn in July 8, 1920 under the leadership of Hon. L. A. Taschereau; 17th Ministry sworn in June 11, 1936 under the leadership of Hon. A. Godbout; 18th Ministry sworn in Aug. 24, 1936 under the leadership of Hon. Maurice L. Duplessis; 19th Ministry sworn in Nov. 10, 1939 under the leadership of Hon. A. Godbout; 20th Ministry sworn in Aug. 30, 1944 under the leadership of Hon. Maurice L. Duplessis.

² Life of Legislature not expired at Mar. 31, 1957.

Twentieth Ministry

(Party standing at latest General Election, June 20, 1956: 72 Union Nationale, 20 Liberals, 1 Independent.)

NOTE.—See headnote to Table 15.

| Office | Name | Date of First Appointment | Date of Present Appointment |
|--|---------------------------------|---------------------------|-----------------------------|
| Premier and President of the Executive Council..... | Hon. MAURICE L. DUPLESSIS..... | Aug. 24, 1936 | Aug. 30, 1944 |
| Minister of Finance..... | Hon. ONÉSIME GAGNON..... | Oct. 6, 1936 | Aug. 30, 1944 |
| Minister of Lands and Forests and of Hydraulic Resources..... | Hon. JOHN S. BOURQUE..... | Aug. 24, 1936 | Aug. 30, 1944 |
| Minister of Health..... | Hon. J. H. ALBINY PAQUETTE..... | Aug. 24, 1936 | Aug. 30, 1944 |
| Minister of Colonization..... | Hon. J. D. BÉGIN..... | Aug. 30, 1944 | Aug. 30, 1944 |
| Minister without Portfolio..... | Hon. ANTONIO ELIE..... | Aug. 24, 1936 | Aug. 30, 1944 |
| Minister of Agriculture..... | Hon. LAURENT BARRÉ..... | Aug. 30, 1944 | Aug. 30, 1944 |
| Minister of Roads..... | Hon. ANTONIO TALBOT..... | Aug. 30, 1944 | Aug. 30, 1944 |
| Minister of Labour..... | Hon. ANTONIO BARRETTE..... | Aug. 30, 1944 | Aug. 30, 1944 |
| Minister of Game and Fisheries..... | Hon. CAMILLE POULIOT..... | Aug. 30, 1944 | Aug. 30, 1944 |
| Minister of Public Works..... | Hon. ROMÉO LORRAIN..... | Aug. 30, 1944 | Aug. 30, 1944 |
| Minister of Social Welfare and of Youth..... | Hon. JEAN-PAUL SAUVÉ..... | Sept. 18, 1946 | Sept. 18, 1946 |
| Minister of Trade and Commerce..... | Hon. PAUL BEAULIEU..... | Aug. 30, 1944 | Aug. 30, 1944 |
| Provincial Secretary..... | Hon. YVES PRÉVOST..... | Sept. 26, 1956 | Sept. 26, 1956 |
| Minister of Transportation and Communications and Solicitor General..... | Hon. ANTOINE RIVARD..... | Dec. 15, 1948 | Apr. 12, 1950 |
| Minister of Municipal Affairs..... | Hon. PAUL DOZOIS..... | Sept. 26, 1956 | Sept. 26, 1956 |
| Minister of Mines..... | Hon. W. M. COTTINGHAM..... | June 2, 1954 | June 2, 1954 |
| Minister without Portfolio..... | Hon. ARTHUR LECLERC..... | July 23, 1952 | July 23, 1952 |
| Minister without Portfolio..... | Hon. WILFRID LABBÉ..... | July 23, 1952 | July 23, 1952 |
| Minister without Portfolio..... | Hon. JACQUES MIQUELON..... | July 23, 1952 | July 23, 1952 |

Legislative Council

(According to seniority)

| Name | Division | Date of Appointment |
|------------------------------|----------------------|---------------------|
| R. O. GROTHÉ..... | De Salaberry..... | Dec. 23, 1927 |
| ELISÉE THÉRIAULT..... | Kennebec..... | Apr. 23, 1929 |
| JACOB NICOL..... | Bedford..... | Sept. 16, 1929 |
| VICTOR MARCHAND..... | Rigaud..... | Apr. 15, 1932 |
| HECTOR LAFERTÉ..... | Stadacona..... | July 23, 1934 |
| EMILE MOREAU..... | Laizon..... | June 6, 1935 |
| ALPHONSE RAYMOND..... | De Lorimier..... | Aug. 28, 1936 |
| J. L. BARBEAU (Speaker)..... | Shawinigan..... | Jan. 14, 1938 |
| PHILIPPE BRAIS..... | Grandville..... | Feb. 16, 1940 |
| JULES BRILLANT..... | Golfe..... | Jan. 14, 1942 |
| FRANK L. CONNORS..... | Mille Isles..... | Jan. 14, 1942 |
| ROBERT R. NESS..... | Inkerman..... | Jan. 14, 1942 |
| FÉLIX MESSIER..... | De Lanaudière..... | Feb. 12, 1942 |
| EDOUARD ASSELIN..... | Wellington..... | Jan. 23, 1946 |
| GEO. B. FOSTER..... | Victoria..... | Aug. 22, 1946 |
| GÉRALD MARTINEAU..... | Les Laurentides..... | Aug. 22, 1946 |
| J. OLIER RENAUD..... | Alma..... | Aug. 22, 1946 |
| PATRICE TARDIF..... | De la Vallière..... | July 20, 1952 |
| JOSEPH BOULANGER..... | De la Durantaye..... | Oct. 8, 1952 |
| EDOUARD MASSON..... | Repentigny..... | Mar. 12, 1953 |
| ALBERT BOUCHARD..... | La Salle..... | Nov. 24, 1954 |
| JEAN BARRETTE..... | Sorel..... | Oct. 19, 1955 |
| EMILE LESAGE..... | Montarville..... | Aug. 1, 1956 |
| Vacant..... | Rougemont..... | ... |

Subsection 6.—Ontario

The Government of Ontario consists of a Lieutenant-Governor, an Executive Council and a House of Assembly. The Honourable Louis O. Breithaupt, LL.D., Lieutenant-Governor of the Province at Mar. 31, 1957, was commissioned to office Jan. 24, 1952. Lieutenant-Governors since Confederation are cited in the 1951 Year Book, p. 92.

The House of Assembly, the single-chamber Legislature of the Province, is composed of 98 members elected for a statutory term of five years.

Besides the regular Departments of Government, the Niagara Parks Commission, the Ontario Municipal Board, The Hydro-Electric Power Commission of Ontario, the Ontario-St. Lawrence Development Commission, the Ontario Northland Transportation Commission, the Liquor Control Board, the Liquor Licence Board, the Hospital Services Commission and The Water Resources Commission have been created.

Under the provisions of the Legislative Assembly Act (R.S.O. 1950, c. 202, as amended 1956, c. 39) each Member of the Assembly is paid an annual indemnity of \$3,600 and an allowance for expenses of \$1,800. In addition, the Speaker receives a special indemnity at the annual rate of \$3,000 and an expense allowance of \$2,000; the Chairman of the Committee of the Whole a special indemnity at the annual rate of \$1,000; and the Leader of the Opposition a special indemnity of \$3,000 and an annual allowance of \$2,000 for expenses. Each Member of the Cabinet having charge of a Department receives the ordinary indemnity as a Member of the Legislature in addition to his salary as a Minister of the Crown. The salary provided in the Executive Council Act for the Premier is \$14,000 and for a Cabinet Minister having charge of a Department \$10,000. A Minister without Portfolio receives only the indemnity and expense allowance of a Member of the Legislature. By the 1956 amendment, every Minister of the Crown in charge of a Department, the Minister of the Crown who is a member of The Hydro-Electric Power Commission of Ontario, and the Leader of the Opposition receive a representation allowance of \$2,000 per annum.

19.—Legislatures and Premiers of Ontario 1934-57 and Ministry as at Mar. 31, 1957

Legislatures 1934-57¹

| Date of Election | Legislature | Number of Sessions | Date of First Opening | Date of Dissolution |
|------------------|-------------|--------------------|-----------------------|---------------------|
| June 19, 1934 | 19th..... | 3 | Feb. 20, 1935 | Apr. 9, 1936 |
| Oct. 6, 1937 | 20th..... | 8 | Dec. 1, 1937 | June 30, 1943 |
| Aug. 4, 1943 | 21st..... | 2 | Feb. 22, 1944 | Mar. 24, 1945 |
| June 4, 1945 | 22nd..... | 4 | July 16, 1945 | Apr. 27, 1948 |
| June 7, 1948 | 23rd..... | 4 | Feb. 10, 1949 | Oct. 6, 1951 |
| Nov. 22, 1951 | 24th..... | 5 | Feb. 21, 1952 | May 2, 1955 |
| June 9, 1955 | 25th..... | 2 | Sept. 8, 1955 | |

¹ The Ministries from 1934-57 were: 11th Ministry sworn in July 10, 1934 under the leadership of Hon. M. F. Hepburn; 12th Ministry sworn in Oct. 21, 1942 under the leadership of Hon. G. D. Conant; 13th Ministry sworn in May 18, 1943 under the leadership of Hon. H. C. Nixon; 14th Ministry sworn in Aug. 17, 1943 under the leadership of Hon. George A. Drew; 15th Ministry sworn in Oct. 10, 1948 under the leadership of Hon. Thomas L. Kennedy; 16th Ministry sworn in May 4, 1949 under the leadership of Hon. Leslie M. Frost. ² Life of Legislature not expired at Mar. 31, 1957.

Sixteenth Ministry

(Party standing at latest General Election, June 9, 1955: 84 Progressive Conservatives, 11 Liberals and 3 Co-operative Commonwealth Federation.)

NOTE.—See headnote to Table 15.

| Office | Name | Date of First Appointment | Date of Present Appointment |
|--|---------------------------------|---------------------------|-----------------------------|
| Premier and President of the Council..... | Hon. LESLIE M. FROST..... | Aug. 17, 1943 | May 4, 1949 |
| Treasurer..... | Hon. DANA PORTER..... | May 8, 1944 | Aug. 17, 1955 |
| Secretary and Registrar..... | Hon. GEORGE H. DUNBAR..... | Aug. 17, 1943 | Aug. 17, 1955 |
| Minister of Labour..... | Hon. CHARLES DALEY..... | Aug. 17, 1943 | Aug. 17, 1943 |
| Minister of Agriculture..... | Hon. WILLIAM A. GOODFELLOW..... | Jan. 7, 1946 | Aug. 1, 1956 |
| Minister of Public Works..... | Hon. WILLIAM GRIESINGER..... | Apr. 15, 1946 | Jan. 20, 1953 |
| Minister without Portfolio..... | Hon. HAROLD R. SCOTT..... | Nov. 28, 1946 | June 3, 1952 |
| Minister of Public Welfare..... | Hon. LOUIS P. CECILE..... | Sept. 17, 1948 | Aug. 17, 1955 |
| Minister of Health..... | Hon. MACKINNON PHILLIPS..... | Aug. 8, 1950 | Aug. 8, 1950 |
| Minister of Reform Institutions..... | Hon. JOHN W. FOOTE..... | Nov. 16, 1950 | Nov. 16, 1950 |
| Minister of Education..... | Hon. WILLIAM J. DUNLOP..... | Oct. 2, 1951 | Oct. 2, 1951 |
| Minister of Mines..... | Hon. PHILIP T. KELLY..... | June 3, 1952 | June 3, 1952 |
| Minister of Municipal Affairs..... | Hon. WM. K. WARRENDER..... | Jan. 20, 1953 | Nov. 1, 1956 |
| Minister of Lands and Forests..... | Hon. CLARE E. MAPLEDORAM..... | July 7, 1954 | July 7, 1954 |
| Minister of Highways..... | Hon. JAMES N. ALLAN..... | Jan. 5, 1955 | Jan. 5, 1955 |
| Minister of Planning and Development..... | Hon. WILLIAM M. NICKLE..... | Jan. 20, 1955 | Aug. 17, 1955 |
| Attorney-General..... | Hon. A. KELSO ROBERTS..... | Aug. 17, 1955 | Aug. 17, 1955 |
| Minister of Travel and Publicity..... | Hon. BRYAN L. CATHCART..... | Aug. 17, 1955 | Aug. 17, 1955 |
| Minister without Portfolio and 2nd Vice-Chairman, Hydro-Electric Power Commission..... | Hon. T. RAY CONNELL..... | Nov. 1, 1956 | Nov. 1, 1956 |

Subsection 7.—Manitoba

Besides a Lieutenant-Governor, Manitoba has an Executive Council composed of 10 members and a Legislative Assembly of 57 members elected for a statutory term of five years. The Honourable John Stewart McDiarmid, Lieutenant-Governor of the Province at Mar. 31, 1957, was commissioned to office Aug. 1, 1953. Lieutenant-Governors since Confederation are cited in the 1951 Year Book, p. 94.

The Premier of the Province is paid a salary of \$10,000 per annum and each of the other Members of the Cabinet \$8,000. Members of the Legislature are each paid an indemnity of \$2,000 and an expense allowance of \$1,000. The Leader of the Opposition is paid an additional amount of \$2,500 and the Speaker of the Legislature an additional amount of \$2,500.

20.—Legislatures and Premiers of Manitoba 1932-57 and Ministry as at Mar. 31, 1957
Legislatures 1932-57¹

| Date of Election | Legislature | Number of Sessions | Date of First Opening | Date of Dissolution |
|------------------|-------------|--------------------|-----------------------|---------------------|
| June 16, 1932 | 19th..... | 4 | Feb. 14, 1933 | June 12, 1936 |
| July 27, 1936 | 20th..... | 5 | Feb. 18, 1937 | Mar. 13, 1941 |
| Apr. 22, 1941 | 21st..... | 5 | Dec. 9, 1941 | Sept. 8, 1945 |
| Oct. 15, 1945 | 22nd..... | 4 | Feb. 19, 1946 | Sept. 29, 1949 |
| Nov. 10, 1949 | 23rd..... | 7 | Feb. 14, 1950 | Apr. 23, 1953 |
| June 8, 1953 | 24th..... | 2 | Feb. 2, 1954 | 2 |

¹ The Ministries from 1932-57 were: 12th Ministry sworn in Aug. 8, 1922 under the leadership of Hon. J. Bracken; 13th Ministry sworn in Jan. 14, 1943 under the leadership of Hon. Stuart S. Garson; 14th Ministry sworn in Nov. 13, 1948 under the leadership of Hon. D. L. Campbell.

² Life of Legislature not expired at Mar. 31, 1957.

Fourteenth Ministry

(Party standing at latest General Election, June 8, 1953: 32 Liberal Progressives, 3 Independent Liberal Progressives, 12 Progressive Conservatives, 5 Co-operative Commonwealth Federation, 1 Labour Progressive, 2 Social Credit, 2 Independents.)

NOTE.—See headnote to Table 15.

| Office | Name | Date of First Appointment | Date of Present Appointment |
|--|-----------------------------------|---------------------------|----------------------------------|
| Premier, President of the Council and Minister of Dominion-Provincial Relations..... | Hon. DOUGLAS L. CAMPBELL..... | Sept. 21, 1936 | { Nov. 13, 1948 Dec. 14, 1948 |
| Attorney-General..... | Hon. MICHAEL N. HRYHORCZUK..... | Jan. 25, 1955 | { Jan. 25, 1955 July 18, 1956 |
| Minister of Public Works..... | Hon. RONALD D. ROBERTSON..... | Nov. 7, 1952 | { July 18, 1956 Dec. 14, 1948 |
| Provincial Treasurer and Minister of Labour..... | Hon. CHARLES E. GREENLAY..... | Feb. 15, 1946 | { July 18, 1956 Jan. 25, 1955 |
| Minister of Health and Public Welfare..... | Hon. ROBERT W. BEND..... | Jan. 25, 1955 | { Jan. 25, 1955 Aug. 16, 1950 |
| Minister of Education..... | Hon. WALLACE C. MILLER..... | Feb. 15, 1946 | { Aug. 16, 1950 Dec. 1, 1951 |
| Minister of Municipal Affairs and Provincial Secretary..... | Hon. EDMOND PREFONTAINE..... | Dec. 1, 1951 | { Dec. 1, 1951 Sept. 4, 1953 |
| Minister of Industry and Commerce..... | Hon. FRANCIS L. JOBIN..... | July 18, 1956 | { July 18, 1956 Sept. 4, 1953 |
| Minister of Agriculture and Immigration and Minister of Public Utilities..... | Hon. CHARLES L. SHUTTLEWORTH..... | Sept. 4, 1953 | { Sept. 4, 1953 July 18, 1956 |
| Minister of Mines and Natural Resources.... | Hon. FRANCIS C. BELL..... | Dec. 14, 1948 | { July 18, 1956 July 18, 1956 |

Subsection 8.—Saskatchewan

The Government of the Province of Saskatchewan consists of a Lieutenant-Governor, an Executive Council and a Legislative Assembly. The Honourable W. J. Patterson, Lieutenant-Governor at Apr. 1, 1957, was commissioned to office July 4, 1951. Lieutenant-Governors since Confederation are cited in the 1951 Year Book, p. 95.

The statutory number of members of the Legislative Assembly is 53, elected for a maximum term of five years.

As of Apr. 1, 1954, the Premier receives \$8,500 and each Cabinet Minister \$7,000 annually in addition to the sessional indemnity. The Leader of the Opposition receives \$4,000. As of 1957 the Speaker and Deputy Speaker receive \$2,500 and \$1,500 respectively. The sessional indemnity of a Member of the Legislature is \$2,400 together with an expense allowance of \$1,200. Members for the three northern-most constituencies of Cumberland, Athabasca and Meadow Lake each receive a \$2,750 sessional indemnity and a \$1,350 expense allowance.

21.—Legislatures and Premiers of Saskatchewan 1934-57 and Ministry as at Apr. 1, 1957**Legislatures 1934-57¹**

| Date of Election | Legislature | Number of Sessions | Date of First Opening | Date of Dissolution |
|------------------|-------------|--------------------|-----------------------|---------------------|
| June 19, 1934 | 8th..... | 4 | Nov. 15, 1934 | May 14, 1938 |
| June 8, 1938 | 9th..... | 6 | Jan. 19, 1939 | May 10, 1944 |
| June 15, 1944 | 10th..... | 5 | Oct. 19, 1944 | May 19, 1948 |
| June 24, 1948 | 11th..... | 5 | Feb. 10, 1949 | May 7, 1952 |
| June 11, 1952 | 12th..... | 4 | Feb. 12, 1953 | Apr. 25, 1956 |
| June 20, 1956 | 13th..... | 2 | Feb. 14, 1957 | 2 |

¹ The Ministries from 1934-57 were: 6th Ministry sworn in July 19, 1934 under the leadership of Hon. J. G. Gardiner; 7th Ministry sworn in Nov. 1, 1935 under the leadership of Hon. W. J. Patterson; 8th Ministry sworn in July 10, 1944 under the leadership of Hon. T. C. Douglas.

² Life of Legislature not expired at Apr. 1, 1957.

Eighth Ministry

(Party standing at latest General Election, June 20, 1956: 36 Co-operative Commonwealth Federation, 14 Liberals and 3 Social Credit.)

NOTE.—See headnote to Table 15.

| Office | Name | Date of First Appointment | Date of Present Appointment |
|--|-----------------------------|---------------------------|----------------------------------|
| Premier, President of the Council and Minister of Co-operation and Co-operative Development..... | Hon. T. C. DOUGLAS..... | July 10, 1944 | { July 10, 1944 Nov. 14, 1949 |
| Provincial Treasurer..... | Hon. C. M. FINES..... | July 10, 1944 | July 10, 1944 |
| Minister of Mineral Resources..... | Hon. J. H. BROCKELBANK..... | July 10, 1944 | July 10, 1944 |
| Minister of Highways and Transportation..... | Hon. J. T. DOUGLAS..... | July 10, 1944 | July 10, 1944 |
| Minister of Education..... | Hon. W. S. LLOYD..... | July 10, 1944 | July 10, 1944 |
| Minister of Municipal Affairs..... | Hon. L. F. MCINTOSH..... | July 10, 1944 | Aug. 4, 1948 |
| Minister of Labour and Minister of Telephones..... | Hon. C. C. WILLIAMS..... | July 10, 1944 | { July 10, 1944 July 27, 1956 |
| Minister of Agriculture..... | Hon. I. C. NOLLET..... | Feb. 26, 1945 | Feb. 26, 1945 |
| Minister of Social Welfare and Rehabilitation..... | Hon. T. J. BENTLEY..... | Nov. 14, 1949 | July 27, 1956 |
| Minister of Natural Resources..... | Hon. A. G. KUSIAK..... | Oct. 24, 1952 | July 27, 1956 |
| Attorney General..... | Hon. R. E. WALKER..... | July 27, 1956 | July 27, 1956 |
| Provincial Secretary and Minister of Travel and Information..... | Hon. R. BROWN..... | July 27, 1956 | { July 27, 1956 Apr. 1, 1957 |
| Minister of Public Health..... | Hon. J. W. ERB..... | July 27, 1956 | July 27, 1956 |
| Minister of Public Works..... | Hon. C. G. WILLIS..... | Aug. 31, 1956 | Aug. 31, 1956 |
| Minister without Portfolio..... | Hon. J. H. STURDY..... | July 10, 1944 | July 27, 1956 |

Subsection 9.—Alberta

The Government of the Province of Alberta is composed of the Lieutenant-Governor, the Executive Council and the Legislative Assembly. The Honourable Dr. John J. Bowlen, Lieutenant-Governor at Mar. 31, 1957, was commissioned to office Feb. 1, 1950. Lieutenant-Governors since Confederation are cited in the 1951 Year Book, p. 96.

There are 61 members of the Legislative Assembly who are elected for a maximum period of five years.

The salary of the Premier is \$11,000 and of a Cabinet Minister \$8,500. A special allowance of \$2,500 is paid to the Leader of the Opposition. The sessional indemnity for each Member of the Legislative Assembly is \$2,400 plus an expense allowance of \$1,200.

22.—Legislatures and Premiers of Alberta 1935-57 and Ministry as at Mar. 31, 1957**Legislatures 1935-57¹**

| Date of Election | Legislature | Number of Sessions | Date of First Opening | Date of Dissolution |
|------------------|-------------|--------------------|-----------------------|---------------------|
| Aug. 22, 1935 | 8th..... | 9 | Feb. 6, 1936 | Feb. 16, 1940 |
| Mar. 21, 1940 | 9th..... | 4 | Feb. 20, 1941 | July 7, 1944 |
| Aug. 8, 1944 | 10th..... | 5 | Feb. 22, 1945 | July 16, 1948 |
| Aug. 17, 1948 | 11th..... | 5 | Feb. 17, 1949 | June 28, 1952 |
| Aug. 5, 1952 | 12th..... | 3 | Feb. 19, 1953 | May 12, 1955 |
| June 29, 1955 | 13th..... | 2 | Aug. 17, 1955 | 2 |

¹ The Ministries from 1935-57 were: 6th Ministry sworn in July 10, 1934 under the leadership of Hon. R. G. Reid; 7th Ministry sworn in Sept. 3, 1935 under the leadership of Hon. Wm. Aberhart; 8th Ministry sworn in May 31, 1943 under the leadership of Hon. Ernest C. Manning.

² Life of Legislature not expired at Mar. 31, 1957.

Eighth Ministry

(Party standing at latest General Election June 29, 1955: 37 Social Credit, 15 Liberals, 3 Progressive Conservatives,

2 Co-operative Commonwealth Federation, 1 Liberal Conservative, 1 Coalition,

1 Independent Social Credit, 1 Independent.)

NOTE.—See headnote to Table 15.

| Office | Name | Date of First Appointment | Date of Present Appointment |
|---|--------------------------------|---------------------------|--|
| Premier, President of the Council, Minister of Mines and Minerals, and Attorney General | Hon. ERNEST C. MANNING..... | Sept. 3, 1935 | { May 31, 1943 Sept. 16, 1952 Aug. 2, 1955 |
| Minister of Education..... | Hon. ANDERS O. AALBORG..... | Sept. 9, 1952 | Sept. 9, 1952 |
| Minister of Lands and Forests..... | Hon. N. A. WILLMORE..... | Nov. 10, 1953 | Aug. 2, 1955 |
| Minister of Public Works..... | Hon. JAMES HARTLEY..... | Aug. 2, 1955 | Aug. 2, 1955 |
| Minister of Health..... | Hon. W. W. CROSS..... | Sept. 3, 1935 | Jan. 5, 1954 |
| Minister of Public Welfare..... | Hon. R. D. JORGENSEN..... | Jan. 5, 1954 | Jan. 5, 1954 |
| Minister of Economic Affairs..... | Hon. A. R. PATRICK..... | Aug. 2, 1955 | Aug. 2, 1955 |
| Minister of Municipal Affairs and Provincial Secretary..... | Hon. ALFRED J. HOOKE..... | Apr. 20, 1945 | Aug. 2, 1955 |
| Minister of Agriculture..... | Hon. LEONARD C. HALMRASST..... | Jan. 3, 1953 | Jan. 5, 1954 |
| Minister of Industries and Labour..... | Hon. R. REIERSON..... | Aug. 2, 1955 | Aug. 2, 1955 |
| Minister of Telephones and Highways..... | Hon. GORDON E. TAYLOR..... | Dec. 27, 1950 | { Dec. 27, 1950 May 1, 1951 |
| Provincial Treasurer..... | Hon. E. W. HINMAN..... | Dec. 23, 1954 | Aug. 2, 1955 |
| Minister without Portfolio..... | Hon. F. C. COLBORNE..... | Aug. 2, 1955 | Aug. 2, 1955 |

Subsection 10.—British Columbia

The Government of British Columbia has a Lieutenant-Governor, an Executive Council and a Legislative Assembly. The Honourable Frank Mackenzie Ross, C.M.G., M.C., LL.D., Lieutenant-Governor of the Province at Mar. 31, 1957, was commissioned to office Oct. 3, 1955. Lieutenant-Governors since Confederation are cited in the 1951 Year Book, p. 98.

The Legislative Assembly, elected for a statutory term of five years, has 52 members.

Each Member of the Executive Council and the Legislative Assembly receives a sessional allowance of \$3,400 and \$1,000 for expenses. There is also paid to each Member a living allowance of \$15 for each day's attendance at the session and for each Saturday, Sunday or holiday that intervenes between two sittings of the House; the allowance of \$15 in any session is not paid in respect of more than 40 days. Each Member also receives an allowance of 25 cents per mile of the distance between his place of residence and the city of Victoria, reckoning such distance, going and coming, according to the nearest

mail route. In addition, the Premier receives a salary of \$15,000 and each Member of the Executive Council \$12,500. The Leader of the Opposition has a special allowance of \$3,500 for expenses and the Speaker and Deputy Speaker receive a special allowance of \$3,500 and \$1,000 respectively.

23.—Legislatures and Premiers of British Columbia 1933-57 and Ministry as at Mar. 31, 1957

Legislatures 1933-57¹

| Date of Election | Legislature | Number of Sessions | Date of First Opening | Date of Dissolution |
|---------------------------|-------------|--------------------|-----------------------|---------------------|
| Nov. 2, 1933 ² | 18th..... | 4 | Feb. 20, 1934 | Apr. 15, 1937 |
| June 1, 1937 | 19th..... | 5 | Oct. 26, 1937 | July 22, 1941 |
| Oct. 21, 1941 | 20th..... | 4 | Dec. 4, 1941 | Aug. 31, 1945 |
| Oct. 25, 1945 | 21st..... | 5 | Feb. 21, 1946 | Apr. 16, 1949 |
| June 15, 1949 | 22nd..... | 4 | Feb. 14, 1950 | Apr. 10, 1952 |
| June 12, 1952 | 23rd..... | 1 | Feb. 3, 1953 | Mar. 27, 1953 |
| June 9, 1953 | 24th..... | 4 | Sept. 15, 1953 | Aug. 13, 1956 |
| Sept. 9, 1956 | 25th..... | 3 | Feb. 7, 1957 | ³ |

¹ The Ministries from 1933-57 were: 22nd Ministry sworn in Nov. 15, 1933 under the leadership of Hon. T. D. Pattullo; 23rd Ministry sworn in Dec. 9, 1941 under the leadership of Hon. John Hart; 24th Ministry sworn in Dec. 29, 1947 under the leadership of Hon. B. I. Johnson; 25th Ministry sworn in Aug. 1, 1952 under the leadership of Hon. W. A. C. Bennett. ² Owing to the death of a candidate, polling day was delayed in the Electoral Districts of Vancouver Centre and Victoria City until Nov. 27, 1933. ³ Life of Legislature not expired at Mar. 31, 1957.

Twenty-Fifth Ministry

(Party standing at latest General Election, Sept. 19, 1956: 39 Social Credit, 10 Co-operative Commonwealth Federation, 2 Liberals, 1 Labour.)

NOTE.—See headnote to Table 15.

| Office | Name | Date of First Appointment | Date of Present Appointment |
|--|--|---------------------------|-----------------------------|
| Premier, President of the Council, Minister of Finance, and Minister of Agriculture... | HON. WILLIAM ANDREW CECIL BENNETT..... | Aug. 1, 1952 | Aug. 1, 1952 |
| Provincial Secretary and Minister of Municipal Affairs..... | HON. WESLEY DREWETT BLACK... | Aug. 1, 1952 | Aug. 1, 1952 |
| Attorney-General and Minister of Industrial Development, Trade and Commerce..... | HON. ROBERT WILLIAM BONNER... | Aug. 1, 1952 | Aug. 1, 1952 |
| Minister of Lands and Forests..... | HON. RAY GILLIS WILLISTON..... | Apr. 14, 1954 | Feb. 28, 1956 |
| Minister of Mines..... | HON. WILLIAM KENNETH KIERNAN | Aug. 1, 1952 | Feb. 28, 1956 |
| Minister of Highways..... | HON. PHILIP ARTHUR GAGLARDI... | Aug. 1, 1952 | Mar. 15, 1955 |
| Minister of Labour and Minister of Railways. | HON. LYLE WICKS..... | Aug. 1, 1952 | Aug. 1, 1952 |
| Minister of Education..... | HON. LESLIE RAYMOND PETERSON. | Sept. 27, 1956 | Sept. 27, 1956 |
| Minister of Health and Welfare..... | HON. ERIC CHARLES FITZGERALD MARTIN..... | Aug. 1, 1952 | Aug. 1, 1952 |
| Minister of Public Works..... | HON. WILLIAM NEELANDS CHANT... | Mar. 15, 1955 | Mar. 15, 1955 |
| Minister of Recreation and Conservation... | HON. EARLE CATHERS WESTWOOD | Sept. 27, 1956 | Mar. 28, 1957 |

Subsection 11.—Yukon and Northwest Territories

Yukon Territory.—The Yukon was created a separate Territory in June 1898. Provision is made for a local Government composed of a Chief Executive, styled Commissioner, and an elective Legislative Council of five members with a three year tenure of office. The Commissioner administers the Government under instructions from the Governor in Council or the Minister of Northern Affairs and National Resources. The Commissioner in Council has power to make ordinances dealing with the imposition of local taxes, sale of liquor, preservation of game, establishment of territorial offices, maintenance of prisons and municipal institutions, issue of licences, incorporation of companies, solemnization of marriage, property and civil rights, administration of justice and generally all matters of a local nature in the Territory. The seat of local government is at Whitehorse, Yukon Territory.

TERRITORIAL COUNCIL

(Five members elected 1955, for three years)

| | | | |
|-------------|----------------|----------------------|--------------|
| Dawson..... | V. C. MELLOR | Whitehorse East..... | J. L. PHELPS |
| Mayo..... | D. C. McGEACHY | Whitehorse West..... | R. HULLAND |
| | Carmacks..... | A. R. HAYES | |

TERRITORIAL OFFICIALS

(AS AT MAY 31, 1957)

| | |
|--|---------------|
| Commissioner (Whitehorse)..... | F. H. COLLINS |
| Superintendent of Works and Buildings..... | K. BAKER |
| Registrar of Vital Statistics..... | H. TAYLOR |
| Legal Adviser..... | F. G. SMITH |

The Director of the Northern Administration and Lands Branch, Department of Northern Affairs and National Resources, is directly responsible for the general administration of the Territory under the Yukon Act (R.S.C. 1952, c. 298) and that Department has three lands and mining officials stationed in the Territory. Other Departments of the Federal Government including Justice, National Revenue, Transport, Post Office, etc., also maintain officials in the Yukon Territory.*

Northwest Territories.—As reconstituted on Sept. 1, 1905, these comprise:—

- (1) all that part of Canada north of the Sixtieth Parallel of North Latitude, except the portions thereof within the Yukon Territory and the Provinces of Quebec and Newfoundland, and
- (2) the islands in Hudson Bay, James Bay and Ungava Bay, except those islands within the Provinces of Manitoba, Ontario and Quebec.

The Northwest Territories Act (R.S.C. 1952, c. 331) provides for the appointment of a Commissioner to administer the government of the Territories under instructions given from time to time by the Governor in Council or the Minister of Northern Affairs and National Resources. As a matter of practice the appointment is held by the Deputy Minister of Northern Affairs and National Resources. For administrative purposes the Territories are divided into the provisional districts of Mackenzie, Keewatin and Franklin (Order in Council dated Mar. 16, 1918). The Northwest Territories Act, as amended, also provides for a Council of nine members, four of whom are elected in the Mackenzie District and five of whom are appointed by the Governor in Council. The Commissioner in Council has legislative powers respecting such matters as direct taxation, establishment and tenure of territorial offices, municipal institutions, controverted elections, licences, incorporation of companies, property and civil rights, administration of justice, game, education, hospitals and generally all matters of a merely local or private nature. The Council meets once each year in the Territories and at least once each year in Ottawa which is the Seat of Government. The resources, except game, remain under the control of the Federal Government. The administration of legislation passed by the Commissioner in Council and the management of resources under federal legislation are carried on by the Northern Administration and Lands Branch of the Department of Northern Affairs and National Resources. Administrative offices are located in the Territories at Fort Smith, Yellowknife, Hay River and Aklavik.

COUNCIL OF THE NORTHWEST TERRITORIES

(AS AT AUG. 19, 1957)

Commissioner..... R. G. ROBERTSON**Deputy Commissioner**..... W. G. BROWN**Members of the Council—**

Appointed..... LOUIS DE LA C. AUDETTE, C. M. DRURY, JEAN BOUCHER,
W. G. BROWN, L. H. NICHOLSON

Elected..... K. LANG, J. W. GOODALL, ROBERT C. PORRITT, JOHN PARKER

Officers of the Council—

Secretary..... R. A. BISHOP

Legal Adviser..... WM. NASON

* Further information on officials of various Federal Government Departments serving Yukon Territory may be obtained from the Director, Northern Administration and Lands Branch, Department of Northern Affairs and National Resources, Ottawa.

Section 3.—Municipal Government*

Most Canadians are served by municipal government, although, paradoxically, a great part of the country does not have municipal government. The populated strip running through the Maritime Provinces, along the St. Lawrence River and the eastern Great Lakes, and from Lake Superior to the Pacific is largely municipally organized, but vast areas of the Provinces of Newfoundland, Quebec and those of western Canada, together with the Territories, are so thinly populated that only a few isolated municipalities have been set up.

Except in the Territories, municipal government is organized and functions under provincial jurisdiction. While there are basic similarities in the municipalities as between provinces, there are infinite variations in the detail of legislation governing incorporation, power and functions, in methods of control and assistance, and in local administrative practices.

For municipalities the postwar period has been changeful. Reorganization has been a live topic, and to a degree has come about in some provinces. Ontario has formed a Metropolitan Municipality in the Toronto area. Alberta has realigned the boundaries of its rural municipalities. Like actions are being debated in other provinces. A whole system of local government has grown up in Newfoundland. Several legislative Acts governing municipalities have been substantially rewritten. The Federal Government and some provincial governments have instituted plans for payments in lieu of taxes on Crown property. Serious thought has been given to assessment methods, their improvement and standardization. Financial reporting is gradually being made comparable. Provincial assistance has been revised and increased. And as yet there appears no slackening in the pressure to change the municipal systems, though not all are in accord on degree or on direction, or on the need for any basic change.

In their operating programs many urban municipalities are faced with a great demand for facilities and services as a result of increased need for modern amenities, for better roads and streets and more services, and also as a result of their rapid and sometimes almost explosive growth. The resulting increase in taxation, borrowing and provincial aid is causing much of the pressure for organizational and financial changes, even of a constitutional nature.

An outline of municipal organization at the end of 1956 in each of the provinces of Canada is given in the following paragraphs.†

Newfoundland.—Newfoundland has two cities, St. John's and Corner Brook, the latter becoming incorporated on Jan. 1, 1956. The remainder of the population is dispersed in small settlements along the coast and only since 1937 have a few of the larger of these been set up individually as towns with local councils or, where two or three are close together, as rural districts. These latter are not rural municipalities but merely towns consisting of two or more settlements. Local affairs in the remainder of the Province are administered by the Provincial Government. In 1949 the Local Government Act was passed to facilitate incorporations. There were 31 towns and four rural districts incorporated under the Act at the end of 1956 and 24 local government communities with lesser powers of government.

Prince Edward Island.—The Province has one city, Charlottetown, and seven towns, all incorporated by special Acts. They comprise less than one-half of one per cent of the area of the Island and only about a quarter of its population. The Village Service Act, 1951, provides for the incorporation of villages. The remaining area of the Province is not organized municipally, the three counties being provincial administrative units only.

Nova Scotia.—Municipal organization in Nova Scotia covers the whole of the Province. The two cities, Halifax and Sydney, operate under special charters and certain special legislation. Forty towns operate under the Town Incorporation Act but there are

* Prepared in the Public Finance and Transportation Division, Dominion Bureau of Statistics.

† Municipalities are summarized by type of organization on p. 75.

no municipalities incorporated as villages. Cities and towns are independent of counties. The rural area is divided into 18 counties which, in themselves, do not represent units of local government. However 12 of these counties each comprise one municipality and the other six each comprise two municipalities, making a total of 24 rural municipalities.

New Brunswick.—The Province is divided into 15 counties which are incorporated municipalities and have direct powers of local self-government in the rural areas. In effect therefore they are rural municipalities. In most cases certain of their powers apply in both rural and urban municipalities. The five cities—Saint John, Fredericton, Moncton, Edmundston and Lancaster—have special charters, and the 20 towns operate under the Towns Incorporation Act. There are two villages and 56 local improvement district areas within the counties but outside the cities, towns and villages; these have been incorporated for the provision of limited municipal services.

Quebec.—Municipal divisions in Quebec embrace the more thickly settled areas comprising about one-third of the Province, the remainder being governed by the Province as 'territories'. The organized area is divided into 75 county municipalities, which are divided again into local municipalities under the Municipal Code and designated as village, township or parish municipalities or simply as municipalities. The counties as such have no direct powers of taxation. Funds to finance the services falling within their jurisdiction are provided by the municipalities forming part thereof. Parts of some counties are not yet organized into incorporated units of local government, being in outlying areas with little or no population. There are 336 villages and 1,129 townships and parishes. A small number of these are independent of the counties in which they are located. Of the 42 cities a few have special charters. The remainder along with the 149 towns are governed by the Cities and Towns Act and numerous special Acts.

Ontario.—Slightly more than one-tenth of the area of Ontario is municipally organized, the remainder being governed entirely by the Provincial Government. The older section of the Province is divided into 43 counties, five of which are united with others for administrative purposes. Although an incorporated municipality each county is comprised of the towns, villages and townships situated within its borders, which provide its revenue. The Municipality of Metropolitan Toronto encompasses one city, four towns, three villages and five townships. There are 29 cities, 155 towns, 156 villages, 572 townships and 22 improvement districts in the Province. Some of each are located in the northern districts which are not organized into counties.

Manitoba.—Only the southern and settled section of Manitoba comprising less than one-eighth of the area is organized for local self-government. As in the other three western provinces there is no county organization and all municipalities are independent except of provincial control. There are five cities, four with special charters and one governed by a number of special Acts. General Acts govern the 35 towns, 37 villages, 109 rural municipalities and four suburban municipalities. An Act of 1944 (amended January 1945) authorizes organization of local government districts in unorganized or in disorganized (formerly organized but later unorganized) territory, and 14 such districts have been set up.

Saskatchewan.—All municipalities in Saskatchewan derive their powers from general Acts that are designated with the name of the type of municipality. There are eight cities, 99 towns, 377 villages and 296 rural municipalities. The area so organized consists of most of the southern two-fifths of the Province—the remainder of this portion is administered for local purposes by the Province in unincorporated local improvement districts. The northern three-fifths is sparsely populated and without local government though some municipal services are provided by the Province through operation of the Northern Administrative Area.

Alberta.—In Alberta there are eight cities, 83 towns, 145 villages and 48 rural municipalities known as municipal districts. Included in the latter are seven county municipalities which are not counties as they exist in Ontario for example but are municipalities

where the council administers education and municipal hospitals. There are also some unincorporated improvement districts administered by the Province in less densely settled areas but only about one-fifth of the Province is organized.

British Columbia.—Less than 0.5 p.c. of the area of British Columbia is organized into municipalities. Additional small areas have sufficient population to require administration of local activities by the Provincial Government. There are 36 cities, 52 villages and 30 districts. The latter are chiefly rural municipalities except for those adjacent to the principal cities of Victoria and Vancouver, which are largely urban in character. It should be emphasized however that the application of the name "city" is somewhat different from the commonly accepted meaning in that several of them have populations of fewer than 1,000 and perhaps one-half or more would not normally be incorporated as cities in another province. Legislation of 1957 provides for incorporation of towns.

Yukon and Northwest Territories.—There are two cities and one town in the Yukon Territory and two local administrative districts in the Northwest Territories, all of which provide some municipal services to their local areas. These are not shown in Table 24.

24.—Municipalities, by Official Designation¹ and by Statistical Classification², by Province, Quebec as at Mar. 16, 1957 and All Others as at Dec. 31, 1956

| Item | Nfld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Total |
|--|-----------------|-----------------|-----------|------------------------|--------------|------------------|------------------|------------------|-----------------|------------|--------------|
| OFFICIAL DESIGNATION ¹ | | | | | | | | | | | |
| | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| Urban municipalities..... | 57 | 21 | 42 | 27 | 527 | 340 | 77 | 484 | 236 | 88 | 1,899 |
| <i>Cities</i> | 2 | 1 | 2 | 5 | 42 | 29 | 5 | 8 | 8 | 36 | 138 |
| <i>Towns</i> | 55 ³ | 7 | 40 | 20 | 149 | 155 | 35 | 99 | 83 | ... | 643 |
| <i>Villages</i> | ... | 13 ⁴ | ... | 2 | 336 | 156 | 37 | 377 | 145 | 62 | 1,118 |
| Rural municipalities ⁵ | 4 | ... | 24 | 15 | 1,129 | 594 ⁶ | 113 ⁷ | 296 ⁸ | 48 ⁹ | 30 | 2,253 |
| Ontario and Quebec counties | ... | ... | ... | ... | 75 | 39 ¹⁰ | ... | ... | ... | ... | 114 |
| Totals, Incorporated Municipalities | 61 | 21 | 66 | 42¹¹ | 1,731 | 973 | 190 | 780 | 234 | 118 | 4,266 |
| STATISTICAL CLASSIFICATION ² | | | | | | | | | | | |
| | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| Municipalities in Metropolitan Areas ¹² | 2 | ... | 3 | 5 | 76 | 41 | 14 | ... | 10 | 19 | 170 |
| <i>Urban</i> | 2 | ... | 2 | 3 | 57 | 23 | 6 | ... | 6 | 7 | 106 |
| <i>Rural</i> | ... | ... | 1 | 2 | 19 | 18 | 8 | ... | 4 | 12 | 64 |
| Other urban municipalities.. | 55 | 21 | 40 | 24 | 470 | 317 | 71 | 484 | 230 | 81 | 1,793 |
| Other rural municipalities... | 4 | ... | 23 | 13 | 1,110 | 576 | 105 | 296 | 44 | 18 | 2,189 |
| <i>Semi-urban</i> | ... | ... | ... | ... | ... | 57 ¹³ | ... | ... | ... | ... | 57 |
| <i>Other</i> | 4 | ... | 23 | 13 | 1,110 | 519 | 105 | 296 | 44 | 18 | 2,132 |
| Ontario and Quebec counties | ... | ... | ... | ... | 75 | 39 | ... | ... | ... | ... | 114 |
| Totals, Incorporated Municipalities | 61 | 21 | 66 | 42 | 1,731 | 973 | 190 | 780 | 234 | 118 | 4,266 |

¹ This section of the table groups the municipalities according to their official nomenclature, which is roughly indicative of size and nature (see footnote 5).

² This section of the table groups the municipalities under the classification devised by the Dominion Provincial Conferences on Municipal Statistics, the classification being designed to bring municipalities into comparable groups for statistical presentation.

³ Includes 24 Local Government Communities.

⁴ See text on p. 73.

⁵ Rural municipalities are designated by different names in the different provinces.

⁶ Includes 22 improvement districts.

⁷ Includes 4 units of self-government known as "Suburban Municipalities". Does not include local government districts.

⁸ Excludes 12 improvement districts.

⁹ Includes 7 county municipalities.

¹⁰ Excludes 50 improvement districts and 2 special areas.

¹¹ Includes Municipality of Metropolitan Toronto.

¹² Excludes 56 local improvement districts.

¹³ Municipalities shown wholly or partly in metropolitan areas by the 1956 Census of Canada, but does not include the Municipality of Metropolitan Toronto, which is shown with counties.

¹⁴ These are classed as suburban and semi-urban by provincial authorities.

Section 4.—Federal and Provincial Royal Commissions

Federal Royal Commissions.*—Royal Commissions established from June 1, 1955, to March 31, 1957, are reported here in continuation of those previously reported in the Year Books beginning with the 1940 edition at pp. 1108-1110.

| <i>Nature of Commission</i> | <i>Commissioners</i> | <i>Date</i> |
|--|--|---------------|
| To review Canada's economic prospects†. | Walter Lockhart Gordon, Chairman Omer Lussier Albert Edward Grauer Andrew Stewart Raymond Gushue | June 17, 1955 |
| To inquire into Canadian television and radio broadcasting‡. | Robert MacLaren Fowler, Chairman Edmond Turcotte James Stewart | Dec. 2, 1955 |
| To review the financial position of Newfoundland as required under the Terms of Union (13 Geo. VI, c. 1, s. 29). | Hon. John Bellitt McNair, Chairman Hon. Albert Walsh John James Deutsch | Feb. 21, 1957 |

Provincial Royal Commissions.—The following list is in continuation of those appearing in previous Year Books beginning with the 1948-49 edition.

| <i>Province and Nature of Commission</i> | <i>Commissioner or Chairman</i> | <i>Date</i> |
|--|--|----------------|
| NEWFOUNDLAND | | |
| Commission of Enquiry into the Incidence of the Local School Tax on the City of Corner Brook. | J. Abbot Beaton. | May 3, 1956 |
| Commission of Enquiry into the Boys Home and Training School at Whitbourne. | Claude Sheppard. | Mar. 27, 1956 |
| Commission of Enquiry into Economic Conditions on the South Coast. | John T. Cheesman. | June 12, 1956 |
| NOVA SCOTIA | | |
| Commission on Hurricane Edna Damage. | His Hon. Judge A. H. McKinnon. | Sept. 22, 1954 |
| Commission on Cape Breton Hospital. | His Hon. Judge V. J. Pottier. | Feb. 13, 1956 |
| Commission on Automobile Insurance. | Dean Horace B. Read. | July 25, 1956 |
| Commission on Farm Credit. | Hon. C. G. Hawkins. | Aug. 29, 1956 |
| Commission on the Springhill Mine Disaster. | Donald McInnes. | Jan. 10, 1957 |
| Commission on the Annapolis Valley Apple Industry. | John A. Walker. | Feb. 8, 1957 |
| Commission on the Workmen's Compensation Act. | His Hon. Judge A. H. McKinnon. | Mar. 5, 1957 |
| QUEBEC | | |
| Committee for the Study of Certain Provincial Road Problems. | Ernest Gohier. | Feb. 10, 1955 |
| Committee on Water Pollution Problems. | Hon. Justice Aimé Marchand. | Dec. 15, 1955 |
| MANITOBA | | |
| Commission to inquire into the cost of supplying hospital care and treatment to indigent persons and into the payment of charges therefor. | F. Walter Crawford. | June 2, 1955 |
| The Greater Winnipeg Investigating Commission. | J. L. Bodie. | Sept. 6, 1955 |

* Commissions constituted under Part I of the Federal Inquiries Act.

† Preliminary report dated December 1956.

‡ Report dated Mar. 15, 1957.

| <i>Province and Nature of Commission</i> | <i>Commissioner or Chairman</i> | <i>Date</i> |
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| MANITOBA—concluded | | |
| Building Damage Appraisal Commission (1955)—Red River Watershed and Rural Municipalities of Ritchot and Taché. | Lawrence Smith..... | Jan. 9, 1956 |
| Building Damage Appraisal Commission (1955)—in Rural Municipalities of Ochre River, Ste. Rose and McCreary. | Lawrence Smith..... | May 29, 1956 |
| Royal Commission on Flood-Cost Benefit.... | Henry William Manning. | Dec. 18, 1956 |
| ALBERTA | | |
| The Metropolitan Planning Commission to inquire into the administration and financing of school and municipal services in the cities of Edmonton, Calgary and surrounding areas. | Hon. Justice Hugh John Macdonald* | July 19, 1955 |
| Commission to inquire into certain charges, allegations and reports relating to the conduct of the business of Government in the Province of Alberta made in speeches, articles and editorials and in reports of meetings, statements and addresses published in the newspapers and also on radio and television in various parts of Alberta. | — | Sept. 2, 1955 |
| BRITISH COLUMBIA | | |
| Commission to inquire into allegations suggestive of corruption in the Police Department of Vancouver, and into the administration of the Police Department of Vancouver, and of laxity in the enforcement of the Criminal Code of Canada by that Department, and specifically determine whether such allegations or any part of them are true in whole or in part and as to whether the Criminal Code of Canada is being properly and efficiently administered by the Police Department of the City of Vancouver. | Reginald Hibbert Tupper..... | June 24, 1955 |
| Commission to inquire into the problems of production, packing, storage, processing and marketing and distribution of the products of the tree fruit industry of British Columbia, and particularly into (a) what constitutes an economic unit of production, (b) the economics of packing, storage and processing facilities, procedures and techniques employed in the Province, (c) the factors involved in the marketing of tree fruit products. | Earl D. MacPhee..... | Dec. 21, 1956 |

PART III.—ADMINISTRATIVE FUNCTIONS OF THE FEDERAL GOVERNMENT†

A special article presenting information on the administration and control of the financial affairs of the Federal Government appears in the 1956 Year Book at pp. 101-107.

Section 1.—Departments, Boards, Commissions, etc.

The following paragraphs indicate the functions of the various departments of government and the special boards and commissions in connection with the work of government.

Though it is not possible, owing to the limitations of space, to enumerate in this Section the details of each service or the divisions or sections of all the departments, the main branches are given along with those services that differ in some quality from the larger

* Hon. Justice Hugh Macdonald resigned the chairmanship of the Commission and was replaced on Feb. 7, 1956 by James C. Mahaffy.

† As at May 31, 1957.

class of subjects handled by a department. The work of many of these departments and boards is given in detail in later Chapters of this volume. The Index will be useful in locating required information.

Department of Agriculture.—This Department was established in 1867 (30 Vict., c. 53) and conducts the concerns of all phases of agriculture. Research and experimentation are carried out by the Science Service and the Experimental Farms Service; the maintenance of standards and protection of products by the Production Service and Marketing Service; reclamation and development by the Prairie Farm Rehabilitation Administration and the Maritime Marshland Rehabilitation Administration; security and price stability policies are administered under the Prairie Farm Assistance Administration and the Agricultural Prices Support Board. The results of work in these various fields and general information on the policies of the Department is made available to the public through the Information Service.

Auditor General's Office.—This Office originated in 1878 (41 Vict., c. 7) and currently functions under the Financial Administration Act (R.S.C. 1952, c. 116). The Auditor General is responsible for examining accounts relating to the Consolidated Revenue Fund and to public property, and for reporting annually to the House of Commons the results of his examinations. He also audits the accounts of various Crown corporations and other instrumentalities.

Board of Grain Commissioners.—Constituted in 1912 under the Canada Grain Act, 1912—now Canada Grain Act, 1930 (R.S.C. 1952, c. 25)—the Board of Grain Commissioners provides general supervision over grain handling in Canada, by licensing elevator operators, inspecting and weighing grain *en route* to and shipped from terminal elevators, and other services. The Board, comprising a Chief Commissioner and two Commissioners, has authority to inquire into any matter relating to the grading and weighing of grain, deductions for dockage or shrinkage, deterioration of any grain during storage or treatment, unfair or discriminatory operation of a grain elevator, etc. The Board publishes its regulations in the *Canada Gazette* and reports to Parliament through the Minister of Trade and Commerce.

Board of Transport Commissioners.—The powers of this Board, which was organized as the Board of Railway Commissioners in 1904, have been extended from time to time until today it has regulatory and judicial functions dealing with almost all aspects of railway activity including location, construction and operation of lines, rates and charges. It is also entrusted with the regulation of other transportation and communication agencies, including express companies, telegraph companies, telephone companies other than those provincially or municipally controlled, international bridges and tunnels, inland shipping and pipelines. The Board reports to Parliament through the Minister of Transport.

Canadian Government Specifications Board.—This is a co-operative body in which Government and industry participate on a voluntary basis. It was formed June 13, 1934, as the Canadian Government Purchasing Standards Committee, under the auspices of the National Research Council. It undertakes the preparation of specifications in commodity fields and for materials, processes and equipment in which government departments and agencies may be interested and arranges for testing and research work.

Chief Electoral Office.—This Office was established in 1920 under the provisions of the Dominion Elections Act, now the Canada Elections Act (R.S.C. 1952, c. 23), and amendments thereto, and is responsible for the conduct of all federal elections as well as the elections of members of the Northwest Territories Council. In addition it conducts any vote taken under the Canada Temperance Act. The Chief Electoral Officer reports to Parliament through the Secretary of State.

Department of Citizenship and Immigration.—This Department was constituted in December 1949 (R.S.C. 1952, c. 67) and came into existence on Jan. 18, 1950, under the Minister of Citizenship and Immigration. Most departmental work is carried on through four branches: The Canadian Citizenship Branch assists governmental and non-governmental agencies engaged or interested in facilitating the adjustment and integration of newcomers and in making Canadians conscious of their privileges and responsibilities as citizens. The Canadian Citizenship Registration Branch administers the Canadian Citizenship Act and is the custodian of all records under that Act and all Naturalization Acts previously in force. The Immigration Branch administers the Immigration Act and Regulations and is responsible for the selection, examination and movement of immigrants, the exclusion or deportation of undesirables and the settlement or establishment of immigrants in Canada. The activities of the Indian Affairs Branch include management of all Indian affairs. Its organization consists of a headquarters office at Ottawa, a regional supervisory staff, and 87 local agencies in the field.

The Minister of Citizenship and Immigration is responsible to Parliament for the National Film Board, the National Library, the Public Archives, and for the National Gallery of Canada which is governed by a Board of Trustees.

Civil Service Commission.—The Civil Service Commission of Canada dates from the Civil Service Act of 1908. Under this Act the Commission was given the responsibility of applying, wherever possible, the principle of appointment by merit in filling permanent positions within departmental headquarters positions at Ottawa, termed the 'inside service'.

The Civil Service Act 1918 extended the competitive system of appointments to cover the outside as well as the inside service and temporary as well as permanent appointments. It made the Commission responsible for establishing a system of organization and classification that would secure uniformity in the staffing of the various departments and in the salaries paid for work of equal levels of difficulty and responsibility.

The jurisdiction of the Commission now extends to all departments of the Government and to a large number of boards and commissions, exclusive of Crown corporations.

The Civil Service Commission, which reports to Parliament and makes recommendations to the Government through the Secretary of State, consists of three members, one of whom serves as Chairman. Each member of the Commission is appointed by the Governor in Council for a term of ten years and each has the rank and standing of a Deputy Minister. The Commission has a staff of approximately 620 persons located in the headquarters office at Ottawa and in district offices at St. John's, Nfld., Halifax, N.S., Moncton, N.B., Montreal, Que., Toronto, Ont., Winnipeg, Man., Regina, Sask., Edmonton, Alta., and Vancouver, B.C.

Department of Defence Production.—This Department was established on Apr. 1, 1951, under the provisions of the Defence Production Act (R.S.C. 1952, c. 62, as amended). Under this Act the Minister is given, with certain exceptions, authority to buy defence supplies and construct defence projects required by the Department of National Defence. The Minister may, if authorized by the Governor General in Council, undertake for an associated government anything he may undertake for the Canadian Government. In addition, all powers, duties and functions that theretofore were vested in the Minister of Trade and Commerce under any contract, agreement, lease or other writing entered into pursuant to the Department of Munitions and Supply Act, 1939, or the Defence Supplies Act, 1950, are vested in the Minister of Defence Production.

Broadly, the Department's functions are to procure military goods, to construct defence installations and to organize industry for defence as required on behalf of the Department of National Defence, other government departments, and associated governments; to promote the expansion of defence production facilities and the development of defence-supporting industries particularly of strategic resources important for the defence of Canada and its allies; and to ensure adequate supplies of essential materials and services for defence requirements. The main procurement units of the Department are six production branches—Aircraft, Ammunition, Electronics, Gun, Machine Tool and Shipbuilding—and a General Purchasing Branch. Major offices for foreign procurement are located at London, England, and Washington, U.S.A.; and the General Purchasing Branch has 14 district purchasing offices located throughout Canada for local or urgent procurement. In addition, there are various service branches which include Administration, Comptroller's, Economics and Statistics, Financial Adviser's, Industrial Security, Legal, and Secretary's.

The following Crown companies report to Parliament through the Minister of Defence Production: Canadian Arsenals Limited, Canadian Commercial Corporation, Crown Assets Disposal Corporation, Defence Construction (1951) Limited, and Polymer Corporation Limited.

Dominion Bureau of Statistics.—The Dominion Bureau of Statistics was set up by statute in 1918 as a central statistical department for Canada (8-9 Geo. V, c. 43). In 1948 this statute, which had been consolidated as the Statistics Act (R.S.C. 1927, c. 190), was repealed and replaced by the Statistics Act (R.S.C. 1952, c. 257); it was amended by 1-2 Eliz. II, c. 18, assented to Mar. 31, 1953.

The function of the Dominion Bureau of Statistics is to compile, analyse and publish statistical information relative to the commercial, industrial, financial, social and general condition of the people and to conduct a census of population and agriculture of Canada at ten-year intervals.

The Bureau is the principal publication agency of the Federal Government; the subjects of the reports cover all aspects of the national economy. The Bureau reports to Parliament through the Minister of Trade and Commerce.

Department of External Affairs.—This Department was established in 1909 by "An Act to create a Department of External Affairs" (R.S.C. 1952, c. 68). Its main function is the protection and advancement of Canadian interests abroad. The head of the Department of External Affairs is the Secretary of State for External Affairs. The senior permanent officer of the Department is the Under-Secretary (Deputy Minister) who is the chief adviser to the Secretary of State for External Affairs. He is assisted by a Deputy Under-Secretary and by three Assistant Under-Secretaries and a Legal Adviser and is advised by officers in charge of the various divisions, each responsible for a part of the work of the Department. The divisional heads are assisted by Foreign Service Officers, Administrative Officers and by an administrative staff. Officers serving abroad are formally designated as Ambassadors, Ministers, Counsellors, First, Second and Third Secretaries at diplomatic posts and as Consuls General, Consuls and Vice-Consuls at consular posts. Fifty-eight diplomatic and consular posts are maintained abroad.

The work of the Department at Ottawa is performed by 19 divisions, which can be grouped according to their functions into three categories—political, functional and administrative. There are five political divisions—American, Commonwealth, European, Middle Eastern and Far Eastern; ten functional divisions—Communications, Consular, Defence Liaison (1) and (2), Economic, Information, Legal, Historical Research and Reports, Protocol and United Nations; and four administrative divisions—Establishments and Organization, Finance, Personnel, and Supplies and Properties. There are also three smaller sections—Inspection Service, Political Co-ordination Section and the Press Office.

Department of Finance.—This Department, created on June 22, 1869, by an Act respecting the Department of Finance (32-33 Vict., c. 4), is under the authority of the Minister of Finance. The Department is responsible for the financial administration of Canada including raising the money required for the various governmental activities by way of taxation or borrowing. The Comptroller of the Treasury, an officer of the Department, is responsible for all Government disbursements.

The work of the Department is organized in seven principal Divisions: Administration, Financial Administration and Accounting Policy, Superannuation, Treasury Board, Taxation, Economic Policy, and International Economic Relations. The Royal Canadian Mint is a branch of the Department and the Inspector General of Banks is an officer of the Department.

The Tariff Board and the Canadian Farm Loan Board are responsible to Parliament through the Minister of Finance.

Department of Fisheries.—The Department of Fisheries was first organized under a Minister of Fisheries in 1930. Prior to that date the federal fisheries services were maintained by the former Department of Marine and Fisheries, established in 1868. The provinces, under various arrangements, have certain administrative responsibilities in the fisheries but the legislative authority for the regulations of coastal and freshwater fisheries is with the Federal Department of Fisheries.

The work of the Department includes: conservation and development of the fisheries through the enforcement of fishing regulations, the operation of fish culture establishments, management and improvement of spawning streams and control of predators; inspection of fish products for quality control and the encouragement of industrial development; promotion of the greatest utilization of fishery products and a proper public understanding of the resource and the industry. The Department administers the Fishermen's Indemnity Plan to assist fishermen in the event of loss or serious damage to their fishing vessels or lobster traps.

Agencies connected with the Department are the Fisheries Prices Support Board and the Fisheries Research Board of Canada. The Department is represented on these International Commissions: Pacific Salmon Fisheries, Pacific Halibut, the Northwest Atlantic Fisheries, North Pacific Fisheries, Whaling, and Great Lakes Fisheries, and participates in an international agreement controlling the take of Pribilof seals.

Fisheries Research Board.—The Fisheries Research Board operates under the Fisheries Research Board Act of 1937 (amended in 1947 and 1952-53). It has been active as a fisheries research body since 1898, first as Board of Management of the Canadian Marine Biological Station and later (1912) as the Biological Board of Canada.

The Board operates under the Minister of Fisheries and membership consists of a full-time Chairman and up to 18 members appointed by the Minister from among leading Canadian scientists and businessmen with a knowledge of fishery problems.

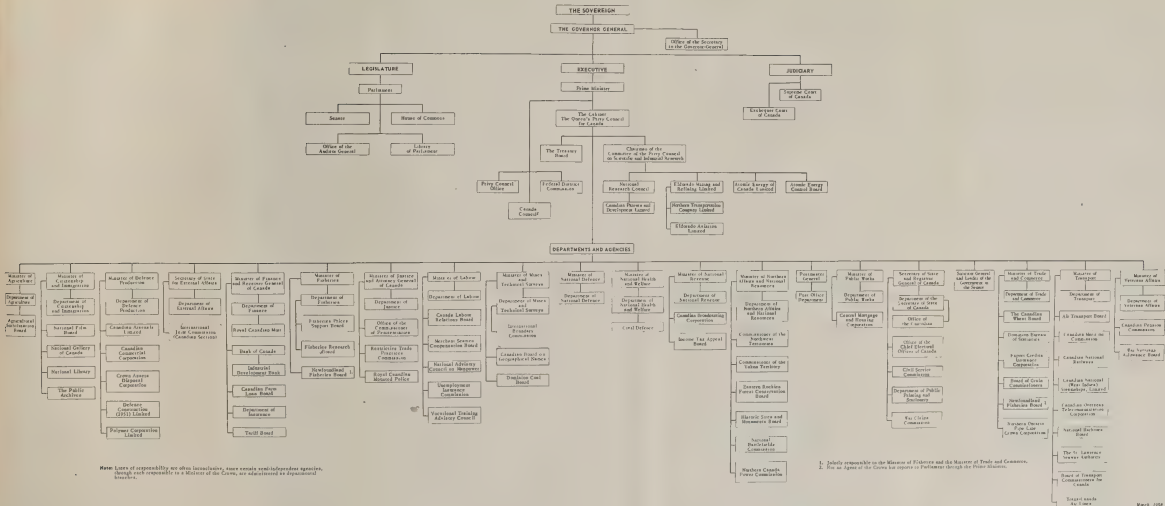
The Board operates five biological stations across Canada, four technological stations and two oceanographic groups. It serves as the scientific arm of the Department of Fisheries and its principal objective is to increase the scope and value of Canadian fisheries through scientific research.

Department of Insurance.—The Minister of Finance is responsible for the Department of Insurance which originated in 1875 as a branch of the Department of Finance but was constituted a separate Department in 1910. It is authorized and governed by the Department of Insurance Act (R.S.C. 1952, c. 70). Under the Superintendent of Insurance, the Department administers the statutes of Canada applicable to: insurance, trust and loan companies incorporated by the Parliament of Canada; provincially incorporated insurance companies registered with the Department; British and foreign insurance companies operating in Canada; small loans companies and money-lenders; and Civil Service insurance.

Under the relevant provincial statutes the Department examines provincial trust companies in the Provinces of Manitoba and New Brunswick and loan and trust companies in the Province of Nova Scotia.

International Joint Commission.—This Commission was established under a joint Canada-United States treaty, Jan. 11, 1909, ratified by Canada in 1911. The Commission, composed of six members (three appointed by the President of the United States and three by the Canadian Cabinet) is governed by five specific Articles of the Boundary Waters Treaty of 1909 which include the right of approval of all matters affecting the natural level or flow of boundary waters on either side of the International Boundary and the power to pass on all applications for works contemplated in waters flowing from or in boundary waters which would change the natural level.

THE GOVERNMENT OF CANADA



Problems arising from the common frontier are also referred to the Commission by either country for examination and report; in such cases, the Commission's decisions are in the nature of recommendations. The International Joint Commission has, however, judicial powers and can render decisions on problems or questions of difference between the two countries providing both consent to be bound by its judgment. These problems need not be connected with the common frontier. The Commission reports to Parliament through the Secretary of State for External Affairs.

Department of Justice.—This Department, established by 31 Vict., c. 39 (1868), now operates under authority of the Department of Justice Act (R.S.C. 1952, c. 71). It provides legal services to the Government and various government departments including preparing and settling government legislation, settling instruments issued under the Great Seal, regulating and conducting litigation for or against the Crown, superintending the acquisition of property and prosecutions under federal legislation other than the Criminal Code, administers federal statutes dealing with legal matters and provides administrative services for the Supreme Court of Canada and the Exchequer Court. The Department also superintends the penitentiaries and administers the prison system of Canada.

Department of Labour.—The Department of Labour was established in 1900 by Act of Parliament (63-64 Vict., c. 24) and now operates under authority of the Department of Labour Act (R.S.C. 1952, c. 72). The Department administers, under the Minister of Labour, legislation dealing with: industrial relations, investigation of disputes, etc.; fair employment practices; the regulation of fair wages and hours of labour; reinstatement in civil employment; female employees equal pay; government annuities; government employee compensation; merchant seamen compensation; vocational training; promotion of labour-management co-operation services; co-ordination of services for rehabilitation of disabled civilians. The Department publishes the *Labour Gazette* and other publications, as well as general information on labour-management, employment, manpower and related subjects.

The Unemployment Insurance Commission, which also maintains the National Employment Service, reports to the Minister of Labour. The Canada Labour Relations Board acts on behalf of, and the National Advisory Council on Manpower acts in an advisory capacity to the Minister of Labour and the Merchant Seamen Compensation Board reports to the Minister of Labour. The Department is the official liaison agency between the Canadian Government and the International Labour Organization.

Department of Mines and Technical Surveys.—This Department was created by an Act of Parliament (13 Geo. VI, c. 17) which received Royal Assent on Dec. 10, 1949. Its establishment resulted from the reorganization of certain former departments. The Department's primary function is to provide technological assistance in the development of Canada's mineral resources through investigations, studies and research in the fields of geology, mineral dressing and metallurgy, and of geodetic, topographic and other surveys. The Department is under the Minister of Mines and Technical Surveys and is divided into five branches: the Surveys and Mapping Branch, the Geological Survey of Canada, the Mines Branch, the Dominion Observatories, and the Geographical Branch.

The Department also administers the Explosives Act which regulates the manufacture, testing, sale, storage and importation of explosives, and the Emergency Gold Mining Assistance Act which provides cost-aid assistance to the Canadian gold industry.

Boards and Commissions are: Canadian Board on Geographical Names; Board of Examiners for Dominion Land Surveyors; International Boundary Commission and Interprovincial Boundary Commissions.

Department of National Defence.—The Department of National Defence was established on Jan. 1, 1923, by the Department of National Defence Act, 1922, and was an amalgamation of the Departments of Militia and Defence, the Naval Service and the Air Board. The Department and the Armed Services now operate under the National Defence Act (R.S.C. 1952, c. 184).

In 1940 additional Ministers for Naval and Air Services were appointed and the Department was organized under a Minister of National Defence and two additional Ministers so that there was a Minister and staff for each of the Armed Services. Upon demobilization of the wartime forces the appointment of Ministers of National Defence for Naval Services and Air Service ceased and the Armed Forces were, in 1946, again administered by the Minister of National Defence without additional ministers. In 1953 under authority of an amendment to the National Defence Act an Associate Minister of National Defence was appointed, but in 1954 this appointment became vacant and the Department is again administered solely by the Minister of National Defence.

Department of National Health and Welfare.—This Department was established in October 1944 under the authority of the Department of National Health and Welfare Act (R.S.C. 1952, c. 74). The Department, headed by the Minister of National Health and Welfare, is composed of three branches—Health, Welfare, and Administration—and is administered through two Deputy Ministers.

The Health Branch is divided into three directorates—Health Services, Food and Drugs, and Indian Health Services. It has 14 Divisions active in certain public health fields divided into five main groups—Medical Advisory, Research Development, Environmental Health, Health Insurance Studies, and Health Grants Administration—each of which is headed by a Principal Medical Officer.

The Welfare Branch is made up of the Divisions of Family Allowances and Old Age Security, Old Age Assistance, and Blind and Disabled Persons Allowances. The Department is also responsible for federal civil defence planning, with the Civil Defence Co-ordinator reporting to both Deputy Ministers. The Administration Branch includes divisions where activities cover both health and welfare fields, such as research, information, legal and library services, as well as administrative, personnel and purchasing and supply services.

National Film Board.—The National Film Board was established in 1939 and the National Film Act (R.S.C. 1952, c. 185) provides for a Board of Governors of nine members—a Government Film Commissioner, appointed by the Governor in Council, who is Chairman of the Board, three members from the public service of Canada and five members from outside the public service. The Board reports to Parliament through a designated Minister of the Crown (at present the Minister of Citizenship and Immigration). The Board is responsible for advising the Governor in Council on film activities and is authorized to produce and distribute films in the national interest and in particular films "designated to interpret Canada to Canadians and to other nations".

National Library.—The National Library Act, proclaimed Jan. 1, 1953, brought the National Library into being. Though at an early stage of organization, the Library publishes *Canadiana*—a monthly catalogue of new publications relating to Canada—and work is well advanced on a national union catalogue to serve as a key to the contents of all important libraries in Canada. The National Librarian reports to the Minister of Citizenship and Immigration.

Department of National Revenue.—From Confederation until May 1918, customs and inland revenue Acts were administered by separate departments; after that date they were amalgamated under one Minister as the Department of Customs and Inland Revenue. In 1921 the name was changed to the Department of Customs and Excise. In April 1924 collection of income taxes was placed under the Minister of National Revenue and under the Department of National Revenue Act, 1927, the Department became known as the Department of National Revenue.

The Customs and Excise Division of the Department is responsible for the assessment and collection of customs and excise duties as well as sales and excise taxes, by ports and outports. The Taxation Division is responsible for the assessment and collection of income taxes and succession duties by 29 district offices throughout Canada.

The Minister of National Revenue is responsible to Parliament for the Income Tax Appeal Board and also reports to Parliament for the Canadian Broadcasting Corporation.

Department of Northern Affairs and National Resources.—The Department of Northern Affairs and National Resources was established in December 1953, superseding the Department of Resources and Development. In addition to Administration Services, which performs auxiliary functions, the Department is divided into seven branches: the National Parks Branch administers the National Parks and National Historic Parks of Canada, National Historic Sites, and wildlife matters coming within the jurisdiction of the Federal Government; the Water Resources Branch is responsible for the investigation of water power resources, for the administration of federal assistance to the provinces under the Canada Water Conservation Assistance Act and for federal interests in certain joint federal-provincial construction projects; the Northern Administration and Lands Branch is responsible for the administration of various Federal Acts, Territorial ordinances and regulations pertaining to the government of the Northwest Territories, for the conduct of certain business arising from the general administration of the Yukon Territory, for the administration of natural resources in those Territories, and for Eskimo affairs, as well as for certain lands and mineral rights in the provinces vested in the Crown in the right of Canada; the Forestry Branch conducts investigations in the protection and utilization of the forest resources of Canada, maintains forest experiment stations and forest products laboratories and administers federal assistance to the provinces under the Canada Forestry Act; the Natural History Branch and Human History Branch of the National Museum of Canada are responsible for research, publication of scientific studies, and public exhibitions in their respective fields of natural history and human history; and the Canadian Government Travel Bureau promotes the tourist industry by encouraging tourist travel in Canada.

The Minister of Northern Affairs and National Resources is also responsible to Parliament for the Eastern Rockies Forest Conservation Board, the Northern Canada Power Commission, and the National Battlefields Commission. The Historic Sites and Monuments Board of Canada, an honorary body of recognized historians representing the various provinces, and the Advisory Board on Wildlife Protection act in an advisory capacity to the Minister in those fields. The Deputy Minister is Commissioner of the Northwest Territories.

Post Office Department.—Administration and operation of the Canada Post Office, by virtue of the Post Office Act (R.S.C. 1952, c. 212) and under the Postmaster General, includes all phases of postal activity, personnel, mail handling, postal accommodation, transportation of mails by land, water, rail and air and the direction and control of financial services including the operation of money order and savings bank business.

Public Archives.—The Public Archives was founded in 1872 and is administered under the Public Archives Act (R.S.C. 1952, c. 222) by the Dominion Archivist who has the rank of a Deputy Minister and reports to Parliament through the Minister of Citizenship and Immigration. Its purpose is to assemble and make available to the public a comprehensive collection of historical source material relating to the history of Canada. Major emphasis is placed on official records of the Government and the personal papers of political leaders and other prominent figures. These are supplemented by copies of many records in the British and French archives that relate to Canada, a fine map collection, a historical library, and many prints, paintings and photographs.

Department of Public Printing and Stationery.—This Department was established in 1886 and is in the charge of the Queen's Printer and Controller of Stationery.

The Department is responsible for supplying all requirements of printing and stationery to Parliament and Departments of the Canadian Government; the distribution and sale of government publications; the publication of the *Canada Gazette*, and all departmental reports, papers, etc., required to be published by authority of the Governor General in Council (R.S.C. 1952, c. 226) and the publication of the Statutes of Canada (R.S.C. 1952, c. 230).

The Department of Public Printing and Stationery is under the jurisdiction of the Secretary of State.

Department of Public Works.—This Department was constituted in 1867 and operates under the legislative authority of the Public Works Act and other Acts of Parliament. It is responsible for the management, charge and direction of the public works of Canada and except as specifically provided in other Acts attends to the construction and maintenance of public buildings, wharves, piers, roads and bridges and the undertaking of dredging and navigable waters protection work. The Department maintains architectural and engineering staffs in each province in addition to the Administrative, Architectural, Engineering and Purchasing and Stores Branches at Ottawa. In 1954 the Fire Prevention Branch of the Department of Insurance was transferred to the Department of Public Works. This branch was organized in 1919 and has, since that time, maintained fire-loss records, made inspections, reported on fire protection legislation and protection methods and endeavoured to extend and co-ordinate fire prevention work in Canada.

The Minister of Public Works is responsible to Parliament for the Central Mortgage and Housing Corporation and for federal interests in the Trans-Canada Highway.

Department of the Secretary of State.—The Secretary of State and Registrar General of Canada is the official medium of communication with the Throne through the Governor General, as well as between the federal and provincial governments through the Lieutenant-Governors, and is the custodian of the Great Seal of Canada and of the Privy Seal of the Governor General. He is responsible for the preparation and tabling of returns in Parliament. He administers legislation relating to patents of invention, trade marks, industrial designs, timber marking, copyright, companies, boards of trade, the registration of trade unions, public officers, public documents and governmental and parliamentary translations. He is also the Custodian of Enemy Property.

The Secretary of State has certain responsibilities with respect to civilian decorations, precedence and ceremonial. The Committee on the use of Parliament Hill and the National War Memorial falls within his purview. He is the Minister of the Department of Public Printing and Stationery and the spokesman in Cabinet and Parliament for the Civil Service Commission and the Chief Electoral Officer.

Trade and Commerce.—The Department of Trade and Commerce was established by Act of Parliament on June 23, 1887, but did not function until Dec. 5, 1892, when an Order in Council to this effect was passed. Before the formation of the Department, assistance in the development of Canada's external trade was provided by eight Canadian Commercial Agents—five in the West Indies, two in Great Britain and one in France—who served on a part-time basis and were responsible to the Minister of Finance. In 1895 a Canadian Commercial Agent was appointed at Sydney, Australia, as the first full-time salaried Agent of the Department.

The framework of the present Trade Commissioner Service emerged during the next decade or so, the Commercial Agents gradually giving place to career Trade Commissioners. There are now 121 Trade Commissioners serving at Headquarters and abroad in 55 posts (including Assistant Trade Commissioners and agricultural, fisheries and timber specialists). Where Trade Commissioners are members of a mission maintained by the Department of External Affairs they hold diplomatic status and are known as Commercial Counsellors or Commercial Secretaries.

The Department provides a wide range of services to Canadian businessmen. It comprises: the Canadian Trade Commissioner Service, Commodities Branch (including the Transportation and Trade Services Division), Agriculture and Fisheries Branch, International Trade Relations Branch, Information Branch, Industrial Development Branch, Economics Branch, Standards Branch, International Economic and Technical Co-operation Division and the Canadian Government Exhibition Commission.

The following boards, commissions, Crown companies and agencies report to Parliament through the Minister of Trade and Commerce—seven of them through his capacity as Chairman of the Privy Council Committee on Scientific and Industrial Research: Board of Grain Commissioners, Canadian Wheat Board, Dominion Bureau of Statistics, Export Credits Insurance Corporation, Northern Ontario Pipe Line Crown Corporation, Trans-Canada Air Lines, Atomic Energy Control

Board, Atomic Energy of Canada Limited, Canadian Patents and Development Limited, National Research Council, Eldorado Mining and Refining Company Limited, Eldorado Aviation Limited, and Northern Transportation Company Limited.

Department of Transport.—The Department was created on Nov. 2, 1936, from the former Department of Marine, Railways and Canals and the Civil Aviation Branch of the Department of National Defence (R.S.C. 1952, c. 79).

The work of the Department consists of four main Services: Marine, Air, Canals and Railways. The work of the Marine Service includes aids to navigation, nautical and pilotage services, marine agencies, steamship inspection and floating equipment and direct supervision over 300 public harbours; seven other harbours come under supervision of the Department but are administered by Commissions. Air Services cover the operation of civil aviation, meteorological and telecommunication branches. The latter includes the administration and regulation of radar, radio marine and radio aeronautical aids to navigation and communication by wire and by government telegraph and telephone. The Canal Service has jurisdiction over the canals and canalized waterways of Canada. These include the main or primary canals on the St. Lawrence River and Great Lakes and a number of subsidiary or secondary canals.

Other services of the Department are in connection with the Government owned companies: the Canadian National Railways, Hudson Bay Railway, Canadian Government Railway, Canadian National (West Indies) Steamship Service and the Prince Edward Island Ferry and Terminals.

The Minister of Transport is responsible to Parliament for the following boards and commissions: the Air Transport Board; Board of Transport Commissioners; Canadian Maritime Commission; Steamship Inspection Board; National Harbours Board; Park Steamship Company Limited; Canadian National Railway Securities Trust; the St. Lawrence Seaway Authority; and the Canadian Overseas Telecommunication Corporation.

Department of Veterans Affairs.—This Department, established in 1944 (R.S.C. 1952, c. 80), is concerned exclusively with the welfare of veterans and includes medical, dental and welfare services, land settlement and prosthetic services and insurance. The Veterans' Bureau assists veterans in the preparation and presentation of pension claims.

The Minister of Veterans Affairs is also responsible for the Canadian Pension Commission and the War Veterans Allowance Board. The Department has administrative offices in all the larger cities across Canada and at London, England.

Section 2.—Crown Corporations

The Crown corporation form of public enterprise is not a new type of organization in Canada but in recent years, as the work of government has become more complex, greater reliance has been placed on it as the appropriate instrument for administering and managing many public services in which business enterprise and public accountability must be combined.

The use of the corporate device to harmonize public responsibility in the development of economic resources and the provision of public services with the pursuit of commercial and industrial objectives has led to the adoption of many different forms and formulas of management. The most usual practice has been to set up a corporation under the provisions of a special Act of Parliament which defines its purpose and sets forth its powers and responsibilities. However, during World War II the Minister of Munitions and Supply was authorized to procure the incorporation of companies under the federal Companies Act, 1934, or under any provincial companies Act to which he might delegate any of the powers conferred on him under the Department of Munitions and Supply Act or any Order in Council. Under this legislation about 28 companies were created to serve a wide variety of purposes; most of these companies have since been wound up.

Following the successful experience during the war years in relying on the Companies Act for the establishment of Crown companies, similar incorporating powers were granted by an amendment to the Research Council Act and have been incorporated in the Atomic Energy Control and the Defence Production Acts.

In 1946 the Government Companies Operation Act was passed to regulate the operation of companies formed under the Companies Act. However, it was applicable only to a relatively small number of companies and, in order to establish a more uniform system of financial and budgetary control and of accounting, auditing and reporting for Crown corporations generally, Part VIII of the Financial Administration Act was enacted in 1951 and brought into operation by proclamation on Oct. 1, 1952. Upon its enactment the financial provisions of the Government Companies Operation Act were repealed.

One of the more interesting features of the new legislation is the attempt that has been made to define and classify Crown corporations.* The Act defines a Crown corporation as a corporation that is ultimately accountable, through a Minister, to Parliament for the conduct of its affairs and establishes three classes of corporation: departmental, agency and proprietary.

Departmental Corporations.—A departmental corporation is defined as a Crown corporation that is a servant or agent of Her Majesty in right of Canada and is responsible for administrative, supervisory or regulatory services of a governmental nature. Ten departmental corporations are listed in Schedule B to the Act:—

- Agricultural Prices Support Board
- Atomic Energy Control Board
- Canadian Maritime Commission
- Director of Soldier Settlement
- The Director, The Veterans' Land Act
- Dominion Coal Board
- Fisheries Prices Support Board
- National Gallery of Canada
- National Research Council
- Unemployment Insurance Commission.

Agency Corporations.—An agency corporation is defined as a Crown corporation that is an agent of Her Majesty in right of Canada and is responsible for the management of trading or service operations on a quasi-commercial basis or for the management of procurement, construction or disposal activities on behalf of Her Majesty in right of Canada. The following agency corporations are listed in Schedule C to the Financial Administration Act or have been subsequently added to that Schedule by the Governor in Council:—

- Atomic Energy of Canada Limited
- Canadian Arsenal Limited
- Canadian Commercial Corporation
- Canadian Patents and Development Limited
- Crown Assets Disposal Corporation
- Defence Construction (1951) Limited
- Federal District Commission
- National Battlefields Commission
- Northwest Territories Power Commission (now Northern Canada Power Commission)
- National Harbours Board
- Park Steamship Company Limited.

Two corporations, Canadian Sugar Stabilization Corporation Limited and Commodity Prices Stabilization Corporation Limited, listed in Schedule C when the Financial Administration Act was proclaimed, have since discontinued operations and surrendered their charters. By an Order in Council of June 15, 1955, the name of the Northwest Territories Power Commission (now Northern Canada Power Commission) was deleted from Schedule D and added to Schedule C effective Apr. 1, 1954.

Proprietary Corporations.—A proprietary corporation is defined as a Crown corporation that (1) is responsible for the management of lending or financial operations, or for the management of commercial or industrial operations involving the production of or dealing in goods and the supplying of services to the public, and (2) is ordinarily required

* Not all Crown corporations are subject to the provisions of the Financial Administration Act. For example, the Canadian Wheat Board, the Bank of Canada and its subsidiary, the Industrial Development Bank, because of the special nature of their functions, are excluded from operations of the Crown corporations Part of the Act and are governed by their own Acts of incorporation, as are such joint enterprises of the Federal and Provincial Governments as the Eastern Rockies Forest Conservation Board and the Halifax Relief Commission. Though not included in the Schedules to the Financial Administration Act, certain provisions of the Act apply to the Northern Ontario Pipe Line Crown Corporation, set up on June 7, 1956, to oversee the building of a cross-country natural gas pipeline. The Canada Council was set up under the Canada Council Act (assented to Mar. 28, 1957) as a Crown corporation but has been declared not an agency of the Crown and hence is not included in the Schedules to the Financial Administration Act.

to conduct its operations without Parliamentary appropriations. The following proprietary corporations are listed in Schedule D to the Act or have been subsequently added to that Schedule by the Governor in Council:—

Canadian Broadcasting Corporation
 Canadian Farm Loan Board
 Canadian National (West Indies) Steamships Limited
 Canadian Overseas Telecommunication Corporation
 Central Mortgage and Housing Corporation
 Eldorado Aviation Limited
 Eldorado Mining and Refining Limited
 Export Credits Insurance Corporation
 National Railways, as defined in the Canadian National-Canadian Pacific Act, 1933
 Northern Transportation Company Limited
 Polymer Corporation Limited
 The St. Lawrence Seaway Authority
 Trans-Canada Air Lines.

Departmental corporations are governed by the provisions of the Financial Administration Act that are applicable to departments generally. Agency and proprietary corporations, however, are subject to the provisions of the Crown corporations Part of the Act although, if there is any inconsistency between the provisions of that Part and those of any other Act applicable to a corporation, the Act provides that the latter prevail. There is provision in the Part for the control and regulation of such matters as corporation budgets and bank accounts, the turning over to the Receiver General of surplus money, limited loans for working-capital purposes, the awarding of contracts and the establishment of reserves, the keeping and auditing of accounts, and the preparation of financial statements and reports and their submission to Parliament through the appropriate Minister.

A further form of control is exercised by Parliament through the power to vote financial assistance. This may take different forms. For some corporations, capital may be provided by parliamentary grants, loans or advances that may subsequently be converted into capital stock or bonds; for others it may be by the issue of capital stock to be subscribed and paid for by the Government; or by the sale of bonds either to the Government or the public. A few corporations have financed all or a portion of their requirements from their own resources or earnings. Under a special financing arrangement a 15 p.c. excise tax charged on radio and television sets and their parts and accessories has been allocated to the revenue of the Canadian Broadcasting Corporation.

Prior to 1952 Crown corporations did not pay corporate income taxes. However the Income Tax Act was later amended so that, in respect of financial years commencing after Jan. 1, 1952, proprietary Crown corporations pay taxes on income earned in the same manner as any privately owned corporation. One desirable result of this amendment is that the financial statements of these Crown companies are now more comparable with those of private industry, with which in some instances they are in competition, and thus it is easier to assess the relative efficiency of their operations.

The functions of the various Crown corporations are given briefly in the following paragraphs. For a number of them further details are included in the Chapters dealing with the subjects concerned (*see Index*).

Agricultural Prices Support Board.—The Board was established in 1944 (R.S.C. 1952, c. 3) to assist in stabilizing the prices of agricultural products. The Board reports to Parliament through the Minister of Agriculture.

Atomic Energy Control Board.—In December 1946, by Act of Parliament (R.S.C. 1952, c. 11), the regulation and control of atomic energy in Canada were placed under the Atomic Energy Control Board. The Board reports to Parliament through the Chairman of the Committee of the Privy Council on Scientific and Industrial Research.

Atomic Energy of Canada Limited.—This Crown Company was incorporated in February 1952 under the Atomic Energy Control Act, 1946 (R.S.C. 1952, c. 11) to take over from the National Research Council on Apr. 1, 1952, the operation of the Chalk River project. The main functions of the Company are the research into many aspects of atomic energy, the operation of atomic reactors and the extraction, processing and marketing of the by-products of the reactors. The Company reports to Parliament through the Chairman of the Committee of the Privy Council on Scientific and Industrial Research.

Bank of Canada.—Legislation of 1934 (R.S.C. 1952, c. 13) provided for the establishment of a central bank in Canada, the function of which is to regulate credit and currency, to control and protect the external value of the Canadian dollar and to stabilize the level of production, trade, prices and employment so far as may be possible within the scope of monetary action. The Bank acts as the fiscal agent of the Government of Canada, manages the public debt and has the sole right to issue notes for circulation in Canada. The Bank is managed by a Board of Directors appointed by the Government and composed of a Governor, a Deputy Governor and 12 Directors; the Deputy Minister of Finance is also a member of the Board. The Bank reports to Parliament through the Minister of Finance and is governed by its own Act of incorporation. (See footnote, p. 85.)

The Canada Council.—Established by Order in Council dated Apr. 15, 1957, this Corporation of 21 members, a Director and an Associate Director functions under the terms of the Canada Council Act, assented to Mar. 28, 1957. Its functions are the encouragement of the arts, humanities and social sciences in Canada. Its work will be financed from the earnings of a \$50,000,000 Endowment Fund and a \$50,000,000 University Capital Grants Fund. In the making, managing and disposing of investments under the Act, the Council will have the advice of an Investment Committee of five, including the Chairman and another member of the Council. The proceedings of the Council are reported each year to Parliament through a member of the Queen's Privy Council for Canada.

Canadian Arsenals Limited.—This Company was established under the Companies Act by Letters Patent dated Sept. 20, 1945, and is subject to the Government Companies Operation Act (R.S.C. 1952, c. 133) and certain provisions of the Financial Administration Act (R.S.C. 1952, c. 116). The Company was set up to take over and operate Crown-owned plant and equipment. Among the items it now manufactures are propellants and explosives, small arms, radar equipment, and a wide variety of ammunition and components. Its divisions, together with the location of their plants, are as follows: Dominion Arsenal Division (Quebec and Val Rose, Que.); Explosives Division (Valleyfield, Que.); Filling Division (St. Paul l'Ermite, Que.); Gun Ammunition Division (Lindsay, Ont.); Small Arms Division (Long Branch, Ont.); Instrument and Radar Division (Scarborough, Ont.). The Company is responsible to Parliament through the Minister of Defence Production.

Canadian Broadcasting Corporation.—Legislation passed in 1936 (R.S.C. 1952, c. 32) provides that there shall be a corporation, to be known as the Canadian Broadcasting Corporation, to consist of a Board of 11 Governors appointed by the Governor in Council and chosen to give representation to the principal geographic divisions of Canada. The Board of Governors determines CBC policy and the Chairman of the Board is required to devote the whole of his time to the performance of his duties under the Act.

The General Manager is the Chief Executive of the Corporation and directs the operations and activities of the Corporation as well as the application of CBC policy as determined by the Board of Governors. He is assisted by regional management representatives located in the principal geographic regions of Canada (Newfoundland, the Maritime Provinces, Quebec, Ontario, the Prairie Provinces and British Columbia), and at Head Office by specialists in Programs, Sales, Operations, Administration, Finance, Engineering and Public Relations. Under the Canadian Broadcasting Act, the Corporation reports to Parliament through a Minister of the Crown (at present the Minister of National Revenue).

Canadian Commercial Corporation.—This Corporation was established on May 1, 1946, by the Canadian Commercial Corporation Act (R.S.C. 1952, c. 35). It purchases goods and commodities in Canada for the governments of other countries. It also acts as purchasing agent for international agencies such as the United Nations International Children's Emergency Fund and the United Nations Korean Reconstruction Agency. Other functions include arranging production and shipment of Canadian contributions of military stores to NATO countries. The Corporation also serves other departments of the Government of Canada. For instance it arranges for the purchase and production of supplies and services which the Department of Trade and Commerce is making available to other countries under the Colombo Plan. In carrying out its functions the Corporation works closely with the Department of Defence Production. It is responsible to Parliament through the Minister of Defence Production.

Canadian Farm Loan Board.—The Board was organized in 1929 to make loans to farmers secured by mortgage. The Board is responsible to Parliament through the Minister of Finance.

Canadian Maritime Commission.—The Commission was created in 1947 (R.S.C. 1952, c. 38) to consider and recommend policies and measures necessary for the operation, maintenance, manning and development of a merchant marine and a ship building and ship repairing industry. The Commission is responsible to Parliament through the Minister of Transport. (See also Park Steamship Company Limited, p. 90.)

Canadian National Railways.—Operating under an Act to incorporate the Canadian National Railway Company (1919), brought into effect by Order in Council of Jan. 30, 1923, the Canadian National Railways comprised at that time the old Intercolonial Railway and various eastern branch lines (all embraced in the Canadian Government Railways which were turned over to the

Canadian National Board for management and operation), the Canadian Northern Railway (1918) and the Grand Trunk Pacific (1923). The Hudson Bay Railway has been operated by the Canadian National Railways for the Canadian Government since 1935 and a separate accounting is made. Additional lines have been built or acquired and are operated by the Canadian National Railways. The Newfoundland Railway was entrusted to the Canadian National Railway Company in 1949 for operation and management. The CNR is controlled by a Chairman and Board of Directors and is responsible to Parliament through the Minister of Transport.

Canadian National (West Indies) Steamships Limited.—Through the medium of this Crown Company, the Federal Government provides direct steamship services to the West Indies in conformity with the Canada-West Indies Trade Agreement of 1926. The Company is responsible to Parliament through the Minister of Transport.

Canadian Overseas Telecommunication Corporation.—This Crown Company was created on Dec. 10, 1949, by Act of Parliament (R.S.C. 1952, c. 42) to acquire for public operation all external telecommunication assets in Canada, in keeping with the Commonwealth Telegraph Agreement, signed May 11, 1948. This Agreement was designed to bring about the consolidation and strengthening of the radio and cable communication systems of the Commonwealth. The Corporation is responsible to Parliament through the Minister of Transport.

Canadian Patents and Development Limited.—Canadian Patents and Development Limited is a Crown Corporation established in 1948, pursuant to authority granted in an amendment to the Research Council Act which was passed in 1946. The primary purpose of the Company is to make available to industry, through licensing arrangements, new processes developed by scientific workers of the National Research Council. Its services are equally available to other Government Departments, publicly supported institutions and universities. The Company also has cross-agency arrangements with similar government agencies in other Commonwealth countries. The Board of Directors is composed of representatives from the National Research Council, from Government Departments and from industry and the universities. Any profits that the Company may derive from licensing arrangements are available for further research and development. The Corporation reports to Parliament through the Chairman of the Committee of the Privy Council on Scientific and Industrial Research. At the present time this is the Minister of Trade and Commerce.

Canadian Wheat Board.—The Board was incorporated under the Canadian Wheat Board Act to market, in an orderly manner, in the interprovincial and export trade, grain grown in Canada. Its powers include authority to buy, take delivery of, store, transfer, sell, ship or otherwise dispose of grain. Except as directed by the Governor in Council, the Board was not originally authorized to buy grain other than wheat, but since Aug. 1, 1949, it may also buy oats and barley. Only grain produced in the designated area, which includes Manitoba, Saskatchewan, Alberta and parts of British Columbia and Ontario, is purchased by the Board, which controls the delivery of grain into elevators and railway cars in that area as well as the interprovincial movement and export of wheat, oats and barley generally. The Board is governed by its own Act of incorporation. (See footnote, p. 85.) It reports to Parliament through the Minister of Trade and Commerce.

Central Mortgage and Housing Corporation.—This Corporation was incorporated by Act of Parliament (R.S.C. 1952, c. 46) in December 1945 to administer the National Housing Acts. Under the National Housing Act, 1954 (2-3 Eliz. II, c. 23, as amended by 1956, c. 9), the Corporation insures mortgage loans made by approved lenders for home ownership and rental housing, makes direct loans, provides home improvement and rental guarantees, undertakes jointly with provincial governments the assembly of land and the construction of housing projects, conducts housing research, co-ordinates community planning and owns and manages rental housing units built for war workers and veterans. The Corporation also arranges for and supervises the construction of housing projects on behalf of the Department of National Defence. The Corporation is responsible to Parliament through the Minister of Public Works.

Crown Assets Disposal Corporation.—This Corporation is established under the Surplus Crown Assets Act (R.S.C. 1952, c. 260) and is subject to the Financial Administration Act (R.S.C. 1952, c. 116). In June 1944 War Assets Corporation was established by statute to replace War Assets Corporation Limited which had been incorporated in 1943. In 1949 the name of War Assets Corporation was changed to Crown Assets Disposal Corporation. The Corporation's function is to dispose of surplus Crown assets. It is responsible to Parliament through the Minister of Defence Production.

Defence Construction (1951) Limited.—This Company was established by Letters Patent in 1951 to take over the general undertakings of Defence Construction Limited. The Company carries out all defence construction with the exception of houses and aircraft runways and is responsible to Parliament through the Minister of Defence Production.

Director of Soldier Settlement and Director of the Veterans' Land Act.—The Director of Soldier Settlement (under the Act of 1919) is also the Director of the Veterans' Land Act, and in either capacity is legally a corporation sole. For administrative purposes however the programs carried on under both Acts constitute integral parts of the services provided by the Department of Veterans Affairs.

Dominion Coal Board.—The Board, created in 1947 under the Dominion Coal Board Act (R.S.C. 1952, c. 86), is charged with the duty of studying and recommending to the Government policies respecting the production, importation, distribution and use of coal in Canada. It also administers transportation subventions, other subsidies relating to coal and loans authorized under the Maritime Coal Production Assistance Act (R.S.C. 1952, c. 170). The Board reports to Parliament through the Minister of Mines and Technical Surveys.

Eastern Rockies Forest Conservation Board.—The Board was appointed in 1947 under the Eastern Rocky Mountain Forest Conservation Act which authorized an agreement between the Government of Canada and the Province of Alberta relating to the protection and conservation of the forests of that area of the eastern slope of the Rocky Mountains which forms part of the watershed of the Saskatchewan River. The function of the Board is to plan, supervise and undertake construction, operation and maintenance of projects and facilities necessary for the proper protection of the forests of the area to obtain the greatest possible flow of water in the Saskatchewan River and its tributaries.

During the first seven years of the agreement the Federal Government undertook to provide \$6,300,000 for capital expenditure and Alberta to provide funds for maintenance expenditures. During the period of capital expenditure the Federal Government agreed to appoint the Chairman and one member and the Province one member. After the capital period the arrangement was that the Federal Government appoint one member and that the Government of Alberta appoint two members and name one of the three as Chairman. This latter arrangement became effective on Apr. 1, 1955, and the Province of Alberta is now responsible for all future capital and maintenance costs of this area. The Board reports to Parliament through the Minister of Northern Affairs and National Resources. (See footnote, p. 85.)

Eldorado Aviation Limited.—Incorporated Apr. 23, 1953, to carry air traffic, both passenger and freight, for Eldorado Mining and Refining Limited and its wholly owned subsidiary, Northern Transportation Company Limited, the Company reports to Parliament through the Chairman of the Committee of the Privy Council on Scientific and Industrial Research.

Eldorado Mining and Refining Limited.—Set up in 1944 under the name of Eldorado Mining and Refining (1944) Limited (the date was omitted from the name in June 1952), the Company's business is that of mining and refining uranium ores in Canada. The Company is also the Government purchasing agent for all uranium produced in Canada. It reports to Parliament through the Chairman of the Committee of the Privy Council on Scientific and Industrial Research.

Export Credits Insurance Corporation.—This Company commenced operations in 1945 under the Export Credits Insurance Act, 1944 (R.S.C. 1952, c. 105) and is administered by a Board of Directors (including the Deputy Minister of Trade and Commerce, the Deputy Minister of Finance and the Governor of the Bank of Canada) with the advice of an Advisory Council. Its function is to insure Canadian exporters against non-payment by foreign buyers arising out of credit and political risks involved in foreign trade. The Corporation reports to Parliament through the Minister of Trade and Commerce.

Federal District Commission.—This Commission had its genesis in the Ottawa Improvement Commission, established by Parliament in 1899 to improve and beautify the National Capital by the development and construction of parks and driveways and to co-operate with the City of Ottawa in local improvement and conservation. Its membership is honorary in character and is appointed by the Governor in Council, and it reports to the Prime Minister. In 1927 the organization's name was changed to the Federal District Commission, its scope of operations widened to include adjacent areas, and its membership increased to ten. Under the FDC Act, one representative each of the cities of Ottawa and Hull (usually the mayor) is included in its membership.

The Commission maintains the grounds of all federal buildings in the National Capital area and landscapes the grounds of new government buildings. In the Ottawa-Hull area (exclusive of Gatineau Park), the Commission has developed over 3,000 acres of urban parks and 22 miles of scenic driveways.

In 1946 the Commission became the federal agency responsible for carrying out the National Capital Plan. Commission approval is required for the location, siting and exterior design of new federal buildings or for alterations to existing structures. The membership was further increased to permit the appointment of a commissioner resident in each of the provinces and a separate honorary committee was established by the Commission to advise on the development of Gatineau Park. The National Capital Fund, to which Parliament has made annual grants of \$2,500,000 since its inception in 1948, was made available to the Commission to execute the work of the National Capital Plan and a National Capital Planning Committee was appointed to act as a permanent honorary advisory body to the Commission on the implementation of the Plan.

Fisheries Prices Support Board.—The Board was set up in July 1947 (R.S.C. 1952, c. 120) to recommend to the Government price support measures when severe price declines occur. The Board functions under the direction of the Minister of Fisheries and consists of a Chairman, who

is a senior officer of the Department of Fisheries, and five members chosen from private and co-operative firms in the industry. The Board has authority to buy fishery products and to sell or otherwise dispose of them or to pay producers the difference between a price prescribed by the Board and the average price the product actually commands.

Halifax Relief Commission.—The Commission, a joint enterprise of the Legislature of Nova Scotia (Statutes of N.S., 1918, c. 61) and the Parliament of Canada (Statutes of Canada, 1918, c. 24), was incorporated to administer relief funds contributed for the assistance of sufferers in consequence of the disastrous explosion at Halifax, Dec. 17, 1917. (*See footnote, p. 85.*)

Industrial Development Bank.—The Bank, a subsidiary of the Bank of Canada, was incorporated in 1944 to provide loans to industrial enterprises where financing is not available through recognized lending organizations. (*See footnote, p. 85.*)

National Battlefields Commission.—This Commission was established by Act of Parliament in 1908 to preserve the historic battlefields at Quebec City. The Commission is composed of nine members, seven being appointed by the Federal Government and one each by the Provinces of Ontario and Quebec. The Commission is supported by an annual statutory grant from the Federal Government and is responsible to Parliament through the Minister of Northern Affairs and National Resources.

National Gallery.—The National Gallery was founded in 1880. By Act of Parliament in 1913 and re-enacted in 1951 it was placed under the management of a Board of Trustees appointed by the Governor General in Council and now operates under the National Gallery Act (R.S.C. 1952, c. 186). It is responsible to Parliament through a Minister of the Crown (at present the Minister of Citizenship and Immigration).

The first charge of the National Gallery is the development and care of the national art collections. Other important services are the arrangement of loans and exhibitions from abroad and from its own holdings for showing in Canada and abroad, the promotion of good industrial design and general extension work consisting of the distribution of reproductions for educational purposes, lectures, educational tours, publications, school broadcasts and art films.

National Harbours Board.—The Board was established by Act of Parliament in 1936. It is responsible for the administration of port facilities at Halifax, Saint John, Chicoutimi, Quebec, Three Rivers, Montreal, Vancouver, and Churchill. The Board is responsible to Parliament through the Minister of Transport.

National Research Council.—In 1917 the Research Council Act was passed and in 1928 laboratories for scientific research were established at Ottawa. The National Research Council now has Divisions of Pure and Applied Chemistry, Building Research, Mechanical Engineering, Radio and Electrical Engineering, Pure and Applied Physics, Applied Biology and Medical Research. Regional laboratories have been established at Saskatoon, Sask., and Halifax, N.S.

Patentable processes and improvements developed by the Council are made available under licence to industry through a Crown company, Canadian Patents and Development Limited, and any profits from the licensing arrangements are used for further research and development.

The Minister of Trade and Commerce as Chairman of the Privy Council Committee on Scientific and Industrial Research is responsible to Parliament for the National Research Council.

Northern Transportation Company Limited.—This Company was incorporated in 1947 under the title of Northern Transportation Company (1947) Limited, the date being omitted from the name in 1952. Previously a company chartered under an Alberta statute, it has been a wholly owned subsidiary of Eldorado Mining and Refining Limited since that Crown company was established and carries out the business of a common carrier in the Mackenzie River watershed. The Company is responsible to Parliament through the Chairman of the Committee of the Privy Council on Scientific and Industrial Research.

Northern Canada Power Commission.—The Commission was established by Act of Parliament in 1948 to bring electric power to points in the Northwest Territories where a need developed and where power could be provided on a self-sustaining basis. The Act was amended in 1950 to give authority to the Commission to provide similar services in Yukon Territory; the name of the Commission, formerly Northwest Territories Power Commission, was changed in 1956. The Commission is composed of a Chairman and two members appointed by the Governor in Council. It operates hydro-electric plants on the Snare River in the Northwest Territories and on the Mayo River in Yukon Territory and diesel-electric plants at Fort Smith and Fort Simpson, N.W.T. Additional plants are under construction at Whitehorse, Yukon, and Aklavik, N.W.T. The Minister of Northern Affairs and National Resources reports to Parliament for the Commission.

Park Steamship Company Limited.—After World War II this Company acted as an agent for Crown Assets Disposal Corporation in the sale and delivery to purchasers of Government war built ships. This work is completed but the Company remains available to carry out any appropriate duties. It has no staff of its own, any necessary work being done by the staff of the Canadian Maritime Commission (*see p. 85*). The Company reports to Parliament through the Minister of Transport.

Polymer Corporation Limited.—This Corporation was established in 1942 by Letters Patent under the Companies Act and is subject to the Government Companies Operation Act (R.S.C. 1952, c. 133) and the Financial Administration Act (R.S.C. 1952, c. 116). It was set up to construct and operate a synthetic rubber plant which now produces a variety of synthetic rubber products and some chemicals. The plant is located at Sarnia, Ont. The Company is responsible to Parliament through the Minister of Defence Production.

St. Lawrence Seaway Authority.—The St. Lawrence Seaway Authority was established by Act of Parliament in 1951 (R.S.C. 1952, c. 242) and came into force by proclamation on July 1, 1954. The Authority is incorporated for the purposes of constructing, maintaining and operating all such works as may be necessary to provide and maintain, either wholly in Canada or in conjunction with works undertaken by an appropriate authority in the United States, a deep waterway between the Port of Montreal and Lake Erie. The Authority is composed of a President, a Vice-President and a Member and reports to Parliament through the Minister of Transport.

Trans-Canada Air Lines.—TCA came into being by Act of Parliament in 1937 (R.S.C. 1952, c. 268) to provide for the development of a publicly owned scheduled transcontinental air service. Transatlantic air services were inaugurated by TCA on behalf of the Canadian Government during World War II and scheduled operations were commenced at the end of the War. TCA now maintains passenger, mail and commodity traffic services over nationwide routes and also services to the United States, England, Scotland, Ireland, France, West Germany, Bermuda, the Bahamas, Jamaica, Barbados and Trinidad. TCA is responsible to Parliament through the Minister of Trade and Commerce.

Unemployment Insurance Commission.—The Commission was appointed on Sept. 24, 1940, under the provisions of the Unemployment Insurance Act, 1940 (R.S.C. 1952, c. 273) for the purpose of administering the Act and providing a national employment service. It is composed of three Commissioners—a Chief Commissioner, a Commissioner appointed after consultation with organizations representative of workers, and another after consultation with organizations representative of employers. Each Commissioner, including the Chief Commissioner, holds office for a period not exceeding ten years. The Commission is responsible to Parliament through the Minister of Labour.

Section 3.—Acts Administered by Federal Departments*

List of the Principal Acts of Parliament Administered by Departments of the Government of Canada

NOTE.—Copies of individual Acts of Parliament and amendments may be obtained from the Queen's Printer, Ottawa, at prices of from 10 cents to \$1.50 per copy according to number of pages. Where duplications of certain Acts appear in the list, parts of these Acts are administered under the Departments given.

| Department, Year and Chapter of Statute | Name of Act | Department, Year and Chapter of Statute | Name of Act |
|---|---|---|---|
| Agriculture— R.S.C. 1952 | | Agriculture— R.S.C. 1952— | |
| 3 | Agricultural Prices Support | 213 | Prairie Farm Assistance |
| 4 | Agricultural Products Board | 214 | Prairie Farm Rehabilitation |
| 5 | Agricultural Products Co-operative Marketing | 248 | Seeds |
| 6 | Agricultural Products Marketing | 294 | Wheat Co-operative Marketing |
| 9 | Animal Contagious Diseases | 1953-54 51 | Criminal Code, Sect. 178, Race Track Betting |
| 22, 305 | Canada Dairy Products | 1955 27 | Canada Agricultural Products Standards |
| 47 | Cheese and Cheese Factory Im- provement | 36 | Meat Inspection |
| 52, 313 | Cold Storage | | |
| 66 | Department of Agriculture | | |
| 81 | Destructive Insect and Pest | | |
| 101 | Experimental Farm Stations | | |
| 113 | Feeding Stuffs | | |
| 115 | Fertilizers | | |
| 126 | Fruit, Vegetables and Honey | | |
| 141 | Hay and Straw Inspection | | |
| 155 | Inspection and Sale | | |
| 167 | Live Stock and Live Stock Pro- ducts | | |
| 168 | Live Stock Pedigree | | |
| 172 | Maple Products Industry | | |
| 175 | Maritime Marshland Rehabilita- tion | | |
| 177 | Meat and Canned Foods | | |
| 180 | Milk Test | | |
| 209 | Pest Control Products | | |
| | | Auditor General— R.S.C. 1952 116 | Financial Administration |
| | | Citizenship and Immigration— | |
| | | 1927— 37 | St. Regis Indian Reservation |
| | | 1934 29 | Caughnawaga Indian Reserve |
| | | 1943 19 | British Columbia Indian Reserves |
| | | R.S.C. 1952 33 | Mineral Resources |
| | | 67 | Canadian Citizenship |
| | | | Department of Citizenship and Immigration |
| | | 146 | Immigration Aid Societies |
| | | 149 | Indian |
| | | 325 | Immigration |

* Compiled from information supplied by the respective Departments.

List of the Principal Acts of Parliament Administered by Departments of the Government of Canada—continued

| Department, Year and Chapter of Statute | Name of Act | Department, Year and Chapter of Statute | Name of Act |
|---|---|---|--|
| Civil Service Commission— R.S.C. 1952 48 | Civil Service | Fisheries— R.S.C. 1952 61 | Deep Sea Fisheries |
| Defence Production— R.S.C. 1952 35 62 260 | Canadian Commercial Corporation Defence Production Surplus Crown Assets | 69 | Department of Fisheries |
| External Affairs— 1911 28 | Respecting the International Boundary Waters Treaty and the existence of the International Joint Commission (amended 1914 c. 5, and 1922 c. 43) | 118 | Fish Inspection |
| 1947-48 71 | Carrying into effect the Treaties of Peace between Canada and Italy, Rumania, Hungary and Finland | 119 | Fisheries |
| R.S.C. 1952 50 | Carrying into effect the Treaty of Peace between Canada and Japan | 120 | Fisheries Prices Support |
| 68 | Department of External Affairs | 121 | Fisheries Research Board |
| 122 | Food and Agriculture Organization of the United Nations | 177 | Meat and Canned Foods |
| 142 | High Commissioner of the United Kingdom | 194 | Northern Pacific Halibut Fishery (Convention) |
| 218 | Privileges and Immunities (NATO) | 205 | Pelagic Sealing (Provisional Agree- ment) |
| 219 | Privileges and Immunities (United Nations) | 244 | Salt Fish Board |
| 275 | United Nations | 252 | Sockeye Salmon Fisheries (Con- vention) |
| 1953-54 54 | Diplomatic Immunities (Common- wealth Countries) | 293 | Whaling Convention |
| Finance— | | 1952-53 15 | Coastal Fisheries Protection |
| | Appropriation (Annual) | 44 | North Pacific Fisheries Conven- tion |
| R.S.C. 1952 12 | Canadian National Railways Fi- nancing and Guarantee (Annual) | 1953-54 18 | Northwest Atlantic Fisheries Con- vention |
| 13 | Bank | 1955 34 | Great Lake Fisheries Convention |
| 15 | Bank of Canada | Insurance— R.S.C. 1952 31 | Canadian and British Insurance Companies |
| 36, 309 | Bills of Exchange | 49 | Civil Service Insurance |
| 82 | Canadian Farm Loan | 70 | Department of Insurance |
| | Diplomatic Services (special) | 100 | Excise Tax (Part I) |
| 110 | Superannuation | 125 | Foreign Insurance Companies |
| 116 | Farm Improvement Loans | 170 | Loan Companies |
| 131 | Financial Administration | 251 | Small Loans |
| 151, 326 | Gold Export | 272 | Trust Companies |
| 156 | Industrial Development Bank | 296 | Winding-up (Part III) |
| 182 | Interest | 1952-53 28 | Co-operative Credit Associations |
| 183 | Municipal Grants | Justice— 1940 43 | Treachery |
| | Municipal Improvements Assist- ance | R.S.C. 1952 14 | Bankruptcy |
| 204 | Pawnbrokers | 71 | Department of Justice |
| 221 | Provincial Subsidies | 98 | Exchequer Court |
| 232 | Quebec Savings Banks | 106 | Expropriation |
| 245 | Satisfied Securities | 111 | Farmers' Creditors Arrangement |
| 261, 336 | Tariff Board | 116 | Financial Administration |
| 296 | Winding-up | 127 | Fugitive Offenders |
| 315 | Currency, Mint and Exchange Fund | 144 | Identification of Criminals |
| 1952-53 47 | Public Service Superannuation | 154 | Inquiries |
| 1953-54 28 | Fire Losses Replacement Accounts | 158 | Interpretation |
| 1955 31 | Canadian National Railways Re- funding | 159 | Judges |
| 46 | Fisheries Improvement Loans | 160 | Juvenile Delinquents |
| 1956 1 | Prairie Grain Producers Interim Financing | 198 | Official Secrets |
| 2 | Temporary Wheat Reserves | 206 | Penitentiary |
| 29 | Federal-Provincial Tax Sharing Agreements | 210 | Petition of Right |
| | | 217, 333 | Prisons and Reformatories |
| | | 241 | Royal Canadian Mounted Police |
| | | 253 | Solicitor General |
| | | 259, 335 | Supreme Court |
| | | 264 | Ticket of Leave |
| | | 299 | Yukon Administration of Justice |
| | | 307 | Canada Evidence |
| | | 314 | Combines Investigation |
| | | 322 | Extradition |
| | | 1952-53 530 | Crown Liability |
| | | 1953-54 51 | Criminal Code |
| | | Labour— R.S.C. 1952 72 | Department of Labour |
| | | 108 | Fair Wages and Hours of Labour |
| | | 132 | Government Annuities |
| | | 134 | Government Employees Compensa- tion |

List of the Principal Acts of Parliament Administered by Departments of the Government of Canada—continued

| Department, Year and Chapter of Statute | Name of Act | Department, Year and Chapter of Statute | Name of Act |
|---|--|---|--|
| Labour— | | National Revenue— | |
| R.S.C. 1952— 152 | Industrial Relations and Disputes Investigation | <i>Taxation—concl.</i> | |
| 178 | Merchant Seamen Compensation | 1944 21 | |
| 236 | Reinstatement in Civil Employment | 1950 27 | Canada-U.S. Tax Convention (Income Tax) |
| 286 | Vocational Training Co-ordination | 1956 35 | |
| 295 | White Phosphorous Matches | 1945 31 | Canada-U.S. Tax Convention (Succession Duties) |
| 1952-53 19 | Canada Fair Employment Practices | 1950 27 | Canada-U.K. Income Tax Agreement |
| 1955 50 | Unemployment Insurance | 1946 38 | Canada-U.K. Succession Duty Agreement |
| 1956 38 | Female Employees Equal Pay | 1948 34 | Canada-N.Z. Income Tax Agreement |
| | | 1951 40 | Canada-France Income Tax Convention |
| Mines and Technical Surveys— | | 1952 18 | Canada-France Succession Duty Convention |
| R.S.C. 1952 73 | Department of Mines and Technical Surveys | 1951 41 | Canada-Sweden Income Tax Agreement |
| 95, 318 | Emergency Gold Mining Assistance | 1951 42 | |
| 102 | Explosives | R.S.C. 1952 89 | Dominion Succession Duty |
| 173 | Maritime Coal Production Assistance | 317 | |
| | | 1957 22 | |
| National Defence— | | R.S.C. 1952 148 | |
| R.S.C. 1952 63 | Defence Services Pension | 1953 40 | |
| 184 | National Defence | 1954 57 | |
| 283 | Visiting Forces (British Commonwealth) | 1955 54 | Income Tax |
| 284 | Visiting Forces (North Atlantic Treaty) | 55 | |
| 285 | Visiting Forces (United States of America) | 1956 39 | |
| | | 1957 29 | |
| | | 1955 10 | Canada - Ireland Income Tax Agreement |
| National Health and Welfare— | | 11 | Canada - Ireland Succession Duties Agreement |
| R.S.C. 1952 74 | Department of National Health and Welfare | 1956 5 | Canada - Denmark Income Tax Agreement |
| | | 33 | Canada - Germany Income Tax Agreement |
| <i>National Health—</i> | | 1957 16 | Canada-Netherlands Income Tax Agreement |
| R.S.C. 1952 29 | Canada Shipping (Part V, Sick Mariners and Marine Hospitals) | 17 | Canada - South Africa Death Duties Agreement |
| 123 | Food and Drugs | 18 | Canada - South Africa Income Tax Agreement |
| 165 | Leprosy | | |
| 201 | Opium and Narcotic Drug | | |
| 220 | Proprietary or Patent Medicine | | |
| 229 | Public Works Health | | |
| 231 | Quarantine | | |
| <i>Welfare—</i> | | Customs and Excise— | |
| R.S.C. 1952 17 | Blind Persons | R.S.C. 1952 58 | Customs |
| 109 | Family Allowances | 60 | Customs Tariff (amended by 316) |
| 199 | Old Age Assistance | 75 | Department of National Revenue |
| 200 | Old Age Security | 99 | Excise (amended by 319) |
| 1954 55 | Disabled Persons | 100 | Excise Tax (amended by 320) |
| National Library— | | <i>Administered in Part—</i> | |
| R.S.C. 1952 330 | National Library | R.S.C. 1925 54 | United States Treaty (smuggling) |
| | | 1952 2 | Aeronautics (amended by 302) |
| | | 9 | Animal Contagious Diseases |
| | | 11 | Atomic Energy Control |
| | | 22 | Canada Dairy Products (amended by 305) |
| | | 29 | Canada Shipping |
| National Revenue— | | 30 | Canada Temperance |
| <i>Taxation—</i> | | 44 | Canadian Wheat Board |
| 1940 32 | | 55 | Copyright |
| 1941 15 | | 59 | Customs and Fisheries Protection |
| 1942 26 | | 81 | Destructive Insect and Pest |
| 1943 13 | Excess Profits Tax | 102 | Explosives |
| 1944 38 | | 103 | Export |
| 1945 19 | | 113 | Feeding Stuffs |

List of the Principal Acts of Parliament Administered by Departments of the Government of Canada—concluded

| Department, Year and Chapter of Statute | Name of Act | Department, Year and Chapter of Statute | Name of Act |
|---|---|---|--|
| Secretary of State— concl. R.S.C. 1952 | 265 Timber Marking | Transport—concl. 42 | Port Alberni Harbour Commissioners |
| 267 Trade Unions | | 1948 10 | New Westminster Harbour Commissioners Refunding |
| 270 Translation Bureau | | 1950 1 | Maintenance of Railway Operation |
| 295 White Phosphorous Matches | | R.S.C. 1952 2, 302 | Aeronautics |
| 298 Yukon | | 16 | Bills of Lading |
| 307 Canada Evidence | | 20 | Bridges |
| 1952-53 49 | Trade Marks and Unfair Competition | 29 | Canada Shipping |
| | | 34 | Belleville Harbour Commissioners |
| | | 38 | Canadian Maritime Commission |
| | | 39 | Canadian National — Canadian Pacific |
| Trade and Commerce— R.S.C. 1952 | 11 Atomic Energy Control | 42 | Canadian Overseas Telecommunication Corporation |
| 25 | Canada Grain | 45 | Carriage by Air |
| 44 | Canadian Wheat Board | 79 | Department of Transport |
| 64 | Defence Supplies | 135 | Government Harbours and Piers |
| 78 | Department of Trade and Commerce | 136 | Government Railways |
| 92 | Electrical and Photometric Units | 137 | Government Vessels Discipline |
| 94 | Electricity Inspection | 157 | International Rapids Power Development |
| 103 | Export | 168 | Live Stock Shipping |
| 105 | Export Credits Insurance | 174 | Maritime Freight Rates |
| 129 | Gas Inspection | 187 | National Harbours Board |
| 140 | Grain Futures | 193 | Navigable Waters Protection |
| 147 | Importation of Intoxicating Liquors | 202 | Passenger Tickets |
| 153 | Inland Water Freight Rates | 211 | Pipe Lines |
| 164 | Length and Mass Units | 233 | Radio |
| 191 | National Trade Mark and True Labelling | 234 | Railway |
| 215 | Precious Metals Marking | 242 | St. Lawrence Seaway Authority |
| 239 | Research Council | 262 | Telegraphs |
| 257 | Statistics | 271 | Transport (Board of Transport Commissioners) |
| 268 | Trans-Canada Air Lines | 276 | United States Wreckers |
| 292 | Weights and Measures | 291 | Water Carriage of Goods |
| 1953-54 27 | Export and Import Permits | 311 | Canadian National Railways Capital Revision |
| 1955 14 | Exportation of Power and Fluids and Importation of Gas | 1955 29 | Canadian National Railways |
| 1956 10 | Northern Ontario Pipe Line Crown Corporation | 31 | Canadian National Refunding |
| Transport— | Auditors for National Railways (Annual) | | |
| | Canadian National Railways Financing and Guarantee (Annual) | Veterans Affairs— 1920 54 | Returned Soldiers' Insurance |
| 1907 22 | Intercolonial Railway and Prince Edward Island Railway Employees Provident Fund | R.S.C. 1927 188 | Soldier Settlement |
| 1911 26 | Toronto Harbour Commissioners | 1936 47 | Veterans' Assistance Commission |
| 1912 55 | Winnipeg and St. Boniface Harbour Commissioners | R.S.C. 1952 8 | Allied Veterans Benefits |
| | | 51, 312 | Civilian War Pensions and Allowances |
| | | 80 | Department of Veterans Affairs |
| | | 117 | Fire Fighters War Service Benefits |
| 1913 158 | New Westminster Harbour Commissioners | 207, 332 | Pension (amended 1953-54, c. 62) |
| | | 256 | Special Operators War Service Benefits |
| | | 258 | Supervisors War Service Benefits |
| 1927 29 | Canadian National (West Indies) Steamship Company | 279, 338 | Veterans Insurance |
| R.S.C. 1927 211 | Railway Belt Water | 280 | Veterans' Land (amended 1953-54, c. 66) |
| 1929 4 | Canadian National Railways Pensions | 281 | Veterans Rehabilitation |
| | | 289 | War Service Grants (amended 1953-54, c. 46) |
| | | 297 | Women's Royal Naval Services and the South African Military Nursing Service (Benefits) |
| | | 340 | War Veterans Allowance (amended 1955, c. 13) |
| 1931 19, 20 | Beauharnois Light, Heat and Power | 1952-53 27 | Children of War Dead (Education Assistance) (amended 1953-54, c. 2) |
| 1940 20 | New Westminster Harbour Loan | 1953-54 65 | Veterans Benefit (amended 1955, c. 43) |
| 1947 26 | Beauharnois Light, Heat and Power | | |

PART IV.—FEDERAL GOVERNMENT EMPLOYMENT

The Civil Service Commission.*—The Federal Civil Service comprises, in the widest sense, all servants of the Crown—other than those holding political or judicial office—who are employed in a civil capacity and whose remuneration is paid wholly and directly from moneys voted by Parliament. Collectively they form the staffs of the various departments, commissions, boards, bureaux and other agencies of the Federal Government. Nearly every category of occupation is represented in the Civil Service. A few civil servants are appointed by one or both Houses of Parliament directly and a considerable number are appointed by departments and other agencies in accordance with the provisions of certain statutes, generally with executive approval of the Governor in Council. The remainder, by far the majority, are selected and appointed by the Civil Service Commission of Canada.

The Civil Service Commission as the central personnel agency of the Federal Government is the custodian of the merit principle in respect of both initial appointments and promotions. The steps by which the Commission came to be constituted in its present form is the record of Civil Service reform in Canada which began a year after Confederation and culminated in the passing of the Civil Service Act of 1918.

Recruitment.—The recruitment of civil servants is conducted by means of open competitive examination through which every citizen has the right to compete for positions in the service of his country. Examinations are held periodically as the staff requirements of the public service dictate. Any Canadian citizen may apply for headquarters positions open at Ottawa but applicants for local positions must be residents of the locality in which the vacancy occurs. Competitive examinations are announced through the press and through posters displayed on the public notice boards of post offices, offices of the National Employment Service, offices of the Civil Service Commission, public libraries and elsewhere. The examinations may be written, oral, a demonstration of skill, or any combination of these.

The names of persons successful in Civil Service examinations, arranged in order of rank, are recorded on eligible lists. Examination results are formally announced by publication in the *Canada Gazette* and each candidate—successful or unsuccessful—is advised of his standing. Appointments are made as required from the eligible lists which usually remain valid for one year.

The rank of the various successful candidates on eligible lists is influenced by the 'veteran's preference'. Actually the preference is limited largely, in accordance with its definition by law, to members of the Armed Forces who have served overseas in World War I or II or in the Korean theatre of operations. The highest order of preference is the 'disability preference' accorded to pensioners of the Armed Forces who as a result of their war service are unable to re-establish themselves in a civilian occupation.

In recent years the Civil Service Commission has decentralized its operations and now has ten district offices and six sub-offices across the country. The Commission is granting an increasing measure of autonomy and responsibility to these offices to permit more efficient service to field agencies.

Staff Training.—In 1947 the Commission set up a Staff Training Division to promote and guide a systematic service-wide training scheme. The training scheme, sponsored by the Commission, is a joint venture undertaken in co-operation with Federal Government departments most of which have parallel training divisions. The Commission's Training Division is primarily a co-ordinating agent. It promotes and organizes activities, trains departmental instructors in the presentation of courses, prepares and on occasion gives courses of general application to all departments, publishes booklets and other training aids, assists departments in developing training to meet specialized needs, and acts as a general clearing-house for the exchange of information on training matters.

* Revised by M. M. Maclean, Secretary of the Civil Service Commission of Canada, Ottawa.

Promotion.—It is a prime objective of the Civil Service Act to create a career service. The result is that promotion, like entrance to the Service, is based on merit and a sound promotion system is developing. The present procedure involves the consideration of three factors: seniority or length of service; efficiency of candidates in their present positions; and fitness for the vacant positions. An automatic rating on seniority is given by the Commission and ratings on efficiency and fitness are provided by the department concerned. Appeal machinery under Commission jurisdiction has been set up for those employees who feel that their qualifications have not been properly assessed.

Position Classification and Compensation.—Provision is made in the Civil Service Act for the classifying of positions in the public service. A system of position classification was instituted in 1919 and positions with like duties and responsibilities were classified alike and remunerated equally. Each position has a title, a set of tasks or duties which are proper to it in the organization in which it occurs and, arising out of these duties, a set of qualifications appropriate for their performance. Positions with duties of similar kind are grouped together under a common title to form a class and grades within the class reflect the level of responsibility.

The determination of rates of compensation for each class is a continuing responsibility of the Commission and salary and wage surveys are conducted constantly. Position classification is a mainspring in the Commission's primary function of recruitment, involving the fixing of standards of qualification for each class of position.

Organization and Methods.—In recent years there has been an increasing awareness of the extent to which economical administration depends on the adoption of modern management techniques and devices. In 1948 the Commission set up an Organization and Methods Service to study problems of management in collaboration with officials directly responsible for major areas of administration. Briefly, this Service affords practical assistance to departments and other agencies of the Government through the systematic examination of structure, operations, procedures and work methods. Its growing facilities are offered free of charge to all departments.

*Statistics of Federal Government Employment.**—The basic concept behind the survey of Federal Government employment, started in April 1952, was that it should comprehend all classes of employees (excluding members of the Armed Services but including Force members of the Royal Canadian Mounted Police) for all services of government, with separate treatment accorded "agency and proprietary corporation and other quasi-independent government bodies" because of their economic or proprietary nature; hence the title "Federal Government Employment" in contrast to the title used for the previous survey "Civil Service of Canada" with its restrictions as to services and classes of employees. Comparison with figures of previous years should be made only after careful consideration of the differences in composition of services and classification of employees.

Included in this survey as "governmental services" and reported in Tables 1, 2 and 3, are all the administrative functions of the Federal Government (see pp. 77-84) and all agencies, boards and commissions where the nature of the undertaking is not of a proprietary or economic character, but where payments of salaries and/or wages are by legislative appropriation from the Consolidated Revenue Fund. Statutory employees are also included as their salaries are paid from the Consolidated Revenue Fund in accordance with the terms of an Act of Parliament establishing the position.

The "classified" group embraces several classes of employees including: those who are subject to the Civil Service Act and Civil Service Superannuation Act; those not subject to these Acts but who are employed under other enabling legislation or regulations; and the statutory group, most of whom are dismissable only by an Address to both Houses of Parliament, such as members of the judiciary. Employees in the classified group are occupants of continuing salaried positions. "Prevailing rate" employees are those who occupy continuing positions which are subject to prevailing rate legislation and therefore

* Prepared in the Public Finance and Transportation Division, Dominion Bureau of Statistics.
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are paid on the basis of the going salary in the area in which the individual works. Prevailing Rate Employees General Regulations also are applicable to the third major group entitled "ships' officers and crews". These three groups comprise what may be called the occupants of continuing positions in the governmental services. In addition, there is a group entitled "casuals and others" which includes persons occupying positions on a non-continuing basis.

Employment of persons working in agency and proprietary corporations and other quasi-independent government bodies are detailed separately in Table 4 since they do not pay their employees from appropriations specifically designated for the payment of salaries or wages. The activities falling in this category are as follows:—

| | |
|--|---|
| Atomic Energy of Canada Limited | Export Credits Insurance Corporation |
| Bank of Canada | Federal District Commission |
| Canadian Arsenals Limited | Halifax Relief Commission |
| Canadian Broadcasting Corporation | Industrial Development Bank |
| Canadian Commercial Corporation | International Pacific Salmon Fisheries Commission |
| Canadian Farm Loan Board | International Pacific Halibut Commission |
| Canadian National Railways | National Harbours Board |
| Canadian National (West Indies) Steamships Limited | Northern Transportation Company Limited |
| Canadian Overseas Telecommunication Corporation | Northern Canada Power Commission |
| Canadian Patents and Development Limited | Polymer Corporation Limited |
| Canadian Wheat Board | Prince Edward Island Car Ferry |
| Central Mortgage and Housing Corporation | St. Lawrence Seaway Authority |
| Crown Assets Disposal Corporation | The Office of the Custodian |
| Defence Construction (1951) Limited | Trans-Canada Air Lines |
| Eldorado Mining and Refining Limited | |

The figures pertaining to this group are published in aggregate only in order to preclude the possibility of disclosure concerning the operations of any particular agency.

1.—Employees in Governmental Services of the Federal Government by Month, Years Ended Mar. 31, 1955 and 1956

NOTE.—Includes departments, boards, commissions, etc. listed in Table 3 but excludes certain Federal Government agencies, proprietary corporations, etc., figures for which are given in Table 4. Figures for 1952-53 are given at p. 113 of the 1955 Year Book and for 1953-54 at p. 128 of the 1956 Year Book.

| Fiscal Year and Month | Classified | Prevailing Rate | Ships' Officers and Crews | Total | Casuals and Others |
|-----------------------|------------|-----------------|---------------------------|---------|--------------------|
| | No. | No. | No. | No. | No. |
| 1954-55— | | | | | |
| April..... | 138,061 | 22,390 | 2,028 | 162,479 | 11,512 |
| May..... | 139,450 | 23,640 | 2,218 | 165,308 | 12,737 |
| June..... | 140,465 | 24,995 | 2,257 | 167,717 | 13,544 |
| July..... | 139,475 | 25,808 | 2,335 | 167,618 | 15,023 |
| August..... | 139,696 | 25,636 | 2,473 | 167,805 | 17,367 |
| September..... | 140,142 | 25,383 | 2,418 | 167,943 | 15,868 |
| October..... | 140,110 | 24,714 | 2,196 | 167,020 | 14,678 |
| November..... | 140,558 | 24,003 | 2,246 | 166,807 | 14,635 |
| December..... | 141,173 | 24,275 | 2,101 | 167,549 | 14,125 |
| January..... | 141,783 | 23,656 | 1,969 | 167,408 | 13,266 |
| February..... | 142,480 | 24,188 | 1,919 | 168,537 | 12,709 |
| March..... | 143,150 | 24,231 | 1,962 | 169,343 | 12,570 |
| 1955-56— | | | | | |
| April..... | 142,384 | 24,164 | 2,141 | 168,689 | 12,580 |
| May..... | 142,838 | 24,977 | 2,306 | 170,121 | 12,846 |
| June..... | 142,724 | 26,193 | 2,369 | 171,286 | 14,785 |
| July..... | 141,861 | 27,168 | 2,462 | 171,491 | 15,774 |
| August..... | 141,277 | 26,215 | 2,515 | 170,007 | 16,077 |
| September..... | 141,868 | 25,431 | 2,275 | 169,574 | 15,872 |
| October..... | 141,589 | 24,724 | 2,359 | 168,672 | 15,214 |
| November..... | 142,297 | 24,320 | 2,154 | 168,771 | 13,898 |
| December..... | 142,934 | 24,070 | 2,239 | 169,243 | 13,079 |
| January..... | 143,558 | 23,746 | 1,972 | 169,276 | 12,409 |
| February..... | 144,058 | 23,858 | 1,838 | 169,754 | 12,615 |
| March..... | 145,083 | 23,524 | 1,928 | 170,535 | 12,300 |

2.—Earnings of Employees in Governmental Services of the Federal Government by Month, Years Ended Mar. 31, 1955 and 1956

NOTE.—Includes departments, boards, commissions, etc. listed in Table 3 but excludes certain Federal Government agencies, proprietary corporations, etc., figures for which are given in Table 4. Figures for 1952-53 are given at p. 113 of the 1955 Year Book and for 1953-54 at p. 129 of the 1956 Year Book.

| Fiscal Year and Month | REGULAR EARNINGS | | | | |
|--------------------------------|------------------------|-----------------|---------------------------|------------|--------------------|
| | Classified | Prevailing Rate | Ships' Officers and Crews | Total | Casuals and Others |
| | \$ | \$ | \$ | \$ | \$ |
| 1954-55 | | | | | |
| April..... | 35,367,522 | 4,763,497 | 475,383 | 40,606,402 | 2,200,742 |
| May..... | 35,614,242 | 4,955,540 | 532,332 | 41,102,114 | 2,257,091 |
| June..... | 35,895,810 | 5,139,100 | 545,018 | 41,579,928 | 2,454,458 |
| July..... | 35,861,032 | 5,319,656 | 560,099 | 41,740,787 | 2,871,376 |
| August..... | 35,912,345 | 5,035,273 | 602,802 | 41,550,420 | 3,241,668 |
| September..... | 35,866,683 | 5,257,570 | 592,651 | 41,716,904 | 2,939,514 |
| October..... | 36,084,397 | 4,947,181 | 523,793 | 41,555,371 | 2,548,237 |
| November..... | 36,251,568 | 5,013,890 | 550,466 | 41,815,924 | 2,735,793 |
| December..... | 36,389,890 | 5,205,008 | 511,894 | 42,106,792 | 2,555,868 |
| January..... | 36,582,958 | 4,711,135 | 476,063 | 41,770,156 | 2,593,438 |
| February..... | 36,787,074 | 4,859,668 | 443,791 | 42,090,533 | 2,309,850 |
| March..... | 36,884,572 | 5,091,831 | 475,725 | 42,452,128 | 2,469,050 |
| OVERTIME EARNINGS ¹ | | | | | |
| | \$ | | | \$ | |
| April..... | 183,985 | .. | .. | 236,046 | .. |
| May..... | 110,091 | .. | .. | 249,369 | .. |
| June..... | 280,356 | .. | .. | 310,039 | .. |
| July..... | 176,126 | .. | .. | 314,878 | .. |
| August..... | 99,240 | .. | .. | 346,513 | .. |
| September..... | 92,384 | .. | .. | 274,142 | .. |
| October..... | 98,179 | .. | .. | 327,998 | .. |
| November..... | 153,986 | .. | .. | 256,794 | .. |
| December..... | 223,654 | .. | .. | 258,568 | .. |
| January..... | 184,741 | .. | .. | 217,518 | .. |
| February..... | 1,314,650 ² | .. | .. | 232,055 | .. |
| March..... | 127,971 | .. | .. | 282,083 | .. |
| REGULAR EARNINGS | | | | | |
| | \$ | \$ | \$ | \$ | \$ |
| 1955-56 | | | | | |
| April..... | 36,743,285 | 5,008,061 | 502,924 | 42,254,270 | 2,305,022 |
| May..... | 36,860,365 | 5,171,716 | 561,636 | 42,593,717 | 2,436,163 |
| June..... | 36,876,663 | 5,548,028 | 558,505 | 42,983,196 | 2,808,996 |
| July..... | 36,891,460 | 5,442,584 | 605,932 | 42,939,976 | 2,920,681 |
| August..... | 36,753,784 | 5,569,700 | 603,621 | 42,927,105 | 3,179,900 |
| September..... | 36,828,115 | 5,403,156 | 549,565 | 42,780,836 | 3,000,623 |
| October..... | 36,949,261 | 4,987,861 | 561,488 | 42,498,610 | 2,811,363 |
| November..... | 37,064,797 | 5,227,089 | 517,828 | 42,809,714 | 2,692,408 |
| December..... | 37,262,675 | 5,188,208 | 525,268 | 42,976,151 | 2,511,468 |
| January..... | 37,428,898 | 5,524,275 | 457,064 | 43,410,237 | 2,464,385 |
| February..... | 37,552,319 | 5,421,992 | 429,789 | 43,404,100 | 2,463,807 |
| March..... | 37,676,926 | 5,215,406 | 453,244 | 43,345,576 | 2,519,897 |
| OVERTIME EARNINGS | | | | | |
| | \$ | \$ | \$ | \$ | \$ |
| April..... | 68,837 | 238,591 | 9,509 | 316,937 | 56,141 |
| May..... | 106,001 | 193,190 | 14,600 | 313,791 | 50,986 |
| June..... | 249,895 | 198,855 | 15,330 | 464,080 | 47,612 |
| July..... | 99,449 | 218,023 | 22,754 | 340,226 | 77,613 |
| August..... | 221,990 | 157,776 | 19,592 | 399,358 | 54,510 |
| September..... | 214,555 | 202,852 | 20,513 | 437,920 | 73,583 |
| October..... | 195,432 | 193,293 | 18,781 | 407,506 | 83,835 |
| November..... | 244,909 | 200,272 | 16,862 | 462,043 | 49,027 |
| December..... | 317,858 | 215,057 | 15,467 | 548,382 | 50,382 |
| January..... | 255,348 | 210,135 | 11,723 | 477,206 | 41,486 |
| February..... | 1,553,644 ² | 237,128 | 2,982 | 1,793,754 | 54,001 |
| March..... | 215,720 | 286,371 | 6,887 | 508,978 | 63,545 |

¹ Total in this section includes prevailing rate, ships' crews, casuals and others; breakdown not available.

² Includes Post Office Christmas rush overtime payments.

3.—Federal Government Employees by Department and Principal Branch or Service as at Mar. 31, 1956, and Regular Earnings for the Year Ended Mar. 31, 1956

NOTE.—Excludes certain Federal Government agency and proprietary corporations, etc., figures for which are given in Table 4.

| Department and Branch or Service | Classified | | Prevailing Rate | | Totals | | Casuals and Others | |
|---|----------------|-----------------|-----------------|----------------|----------------|-----------------|--------------------|----------------|
| | Em- ployees | Earnings | Em- ployees | Earnings | Em- ployees | Earnings | Em- ployees | Earnings |
| | No. | \$'000 | No. | \$'000 | No. | \$'000 | No. | \$'000 |
| Agriculture | 5,810 | 22,112.3 | 997 | 2,783.5 | 6,807 | 24,895.8 | 637 | 2,036.8 |
| Administration Service..... | 190 | 618.8 | 4 | 13.6 | 194 | 632.4 | 1 | 1.0 |
| Science Service..... | 1,445 | 5,798.7 | 58 | 179.1 | 1,503 | 5,977.8 | 45 | 152.8 |
| Experimental Farms Service..... | 1,092 | 3,975.0 | 590 | 1,670.8 | 1,682 | 5,645.8 | 316 | 1,148.1 |
| Production Service..... | 1,598 | 6,005.5 | 54 | 152.5 | 1,652 | 6,158.0 | 30 | 114.0 |
| Marketing Service..... | 966 | 3,572.9 | 3 | 4.8 | 969 | 3,577.7 | 14 | 29.4 |
| Special..... | 519 | 2,141.4 | 288 | 762.7 | 807 | 2,904.1 | 232 | 591.5 |
| Atomic Energy Control Board | 7 | 23.5 | — | — | 7 | 23.5 | — | — |
| Auditor General's Office | 129 | 593.9 | — | — | 129 | 593.9 | — | — |
| Chief Electoral Office | 17 | 65.4 | — | — | 17 | 65.4 | — | — |
| Citizenship and Immigration | 3,393 | 10,654.4 | 47 | 74.6 | 3,440 | 10,729.0 | 459 | 578.2 |
| Departmental Administration..... | 126 | 372.6 | 1 | 1.2 | 127 | 373.8 | — | — |
| Citizenship..... | 132 | 387.2 | — | — | 132 | 387.2 | — | — |
| Immigration Branch..... | 1,552 | 5,214.1 | 46 | 73.4 | 1,598 | 5,287.5 | 299 | 393.7 |
| Indian Affairs Branch..... | 1,549 | 4,561.9 | — | — | 1,549 | 4,561.9 | 160 | 184.5 |
| National Gallery of Canada..... | 34 | 118.6 | — | — | 34 | 118.6 | — | — |
| Civil Service Commission | 585 | 1,960.2 | — | — | 585 | 1,960.2 | — | — |
| Defence Production | 1,397 | 4,803.1 | — | — | 1,397 | 4,803.1 | 59 | 137.2 |
| External Affairs | 1,148 | 4,347.3 | — | — | 1,148 | 4,347.3 | 446 | 791.1 |
| Department and Missions abroad (including Terminable Services) | 1,122 | 4,205.6 | — | — | 1,122 | 4,205.6 | 446 | 791.1 |
| North Atlantic Treaty Organi- zation..... | 4 | 37.1 | — | — | 4 | 37.1 | — | — |
| International Joint Commission.. | 22 | 104.6 | — | — | 22 | 104.6 | — | — |
| Finance | 4,768 | 14,297.5 | — | — | 4,768 | 14,297.5 | 108 | 153.3 |
| General Administration..... | 4,360 | 12,916.2 | — | — | 4,360 | 12,916.2 | 57 | 105.5 |
| Administration of various Acts... | 353 | 1,224.4 | — | — | 353 | 1,224.4 | — | — |
| Contingencies and miscellaneous. | 55 | 156.9 | — | — | 55 | 156.9 | 49 | 47.8 |
| Fisheries | 1,269 | 4,496.0 | 285 | 1,265.8 | 1,832 | 6,619.2 | 93 | 262.0 |
| General Services..... | 137 | 473.0 | — | — | 137 | 473.0 | — | — |
| Field Services..... | 715 | 2,411.4 | 281 | 1,254.1 | 1,248 | 4,455.6 | 41 | 179.4 |
| Fisheries Research Board of Canada..... | 377 | 1,487.0 | 4 | 7.9 | 394 | 1,532.5 | 39 | 74.4 |
| Special..... | 40 | 124.6 | 1 | 3.8 | 53 | 158.1 | 13 | 8.2 |
| Governor General and Lieuten- ant-Governors | 24 | 189.9 | — | — | 24 | 189.9 | — | — |
| Governor General and Lieuten- ant-Governors..... | 11 | 142.1 | — | — | 11 | 142.1 | — | — |
| Office of the Secretary to the Governor General..... | 13 | 47.8 | — | — | 13 | 47.8 | — | — |
| Insurance | 93 | 391.0 | — | — | 93 | 391.0 | — | — |
| Justice | 2,186 | 10,545.0 | — | — | 2,186 | 10,545.0 | — | — |
| Department..... | 547 | 5,272.6 | — | — | 547 | 5,272.6 | — | — |
| Office of the Commissioner of Penitentiaries..... | 1,639 | 5,272.4 | — | — | 1,639 | 5,272.4 | — | — |
| Labour | 7,920 | 22,434.9 | 7 | 13.3 | 7,927 | 22,448.2 | 1,425 | 1,437.4 |
| General Administration..... | 519 | 1,719.7 | — | — | 519 | 1,719.7 | 11 | 9.2 |
| Vocational Training Co-ordina- tion..... | 8 | 37.2 | — | — | 8 | 37.2 | — | — |
| Government Employees Compens- ation..... | 19 | 61.3 | — | — | 19 | 61.3 | — | — |
| Terminable Services..... | 28 | 115.3 | 7 | 13.3 | 35 | 128.6 | 6 | 12.5 |
| Unemployment Insurance Com- mission..... | 7,346 | 20,501.4 | — | — | 7,346 | 20,501.4 | 1,408 | 1,415.7 |

For footnotes, see end of table, p. 102.

3.—Federal Government Employees by Department and Principal Branch or Service as at Mar. 31, 1956, and Regular Earnings for the Year Ended Mar. 31, 1956—continued

| Department and Branch or Service | Classified | | Prevailing Rate | | Totals | | Casuals and Others | |
|--|---------------------|-----------------------|-----------------|-----------------|---------------------------|------------------------------|--------------------|-----------------|
| | Em- ployees | Earnings | Em- ployees | Earnings | Em- ployees | Earnings | Em- ployees | Earnings |
| | No. | \$'000 | No. | \$'000 | No. | \$'000 | No. | \$'000 |
| Legislation | 776 | 1,972.2 | — | — | 776 | 1,972.2 | 104 | 189.1 |
| Senate..... | 89 | 309.2 | — | — | 89 | 309.2 | 68 | 94.4 |
| House of Commons..... | 659 | 1,527.4 | — | — | 659 | 1,527.4 | — | — |
| General..... | 3 | 13.9 | — | — | 3 | 13.9 | — | — |
| Library of Parliament..... | 25 | 121.7 | — | — | 25 | 121.7 | 36 | 94.7 |
| Mines and Technical Surveys | 2,192 | 8,131.6 | 111 | 362.6 | 2,349² | 8,660.2² | — | — |
| Administration Services..... | 137 | 476.2 | 3 | 12.5 | 140 | 488.7 | — | — |
| Mines Branch..... | 487 | 2,094.5 | 101 | 327.6 | 588 | 2,422.1 | — | — |
| Geological Survey of Canada..... | 380 | 1,436.4 | 3 | 10.3 | 383 | 1,446.7 | 3 | 3 |
| Surveys and Mapping Branch..... | 973 | 3,294.9 | 1 | 2.5 | 1,020 | 3,463.4 | 4 | 4 |
| Geographical Branch..... | 76 | 269.1 | — | — | 76 | 269.1 | — | — |
| Dominion Observatories..... | 119 | 475.1 | 3 | 9.7 | 122 | 484.8 | — | — |
| Dominion Coal Board..... | 20 | 85.4 | — | — | 20 | 85.4 | — | — |
| National Defence | 34,162 | 90,708.0 | 15,074 | 43,083.8 | 49,613² | 134,830.1² | 5,192 | 17,295.3 |
| Departmental Administration..... | 1,051 | 3,333.8 | — | — | 1,051 | 3,333.8 | — | — |
| Inspection Services..... | 1,949 | 6,424.6 | — | — | 1,949 | 6,424.6 | — | — |
| Navy..... | 6,644 | 17,593.4 | 4,025 | 12,403.7 | 11,046 | 31,035.4 | 1,033 | 3,918.9 |
| Army..... | 13,233 | 33,053.2 | 6,189 | 17,827.8 | 19,422 | 50,881.0 | 2,074 | 7,733.1 |
| Air..... | 9,036 | 22,117.0 | 4,572 | 11,621.6 | 13,608 | 33,738.6 | 1,887 | 5,065.6 |
| Defence Research and Develop- ment..... | 2,244 | 8,165.6 | 288 | 1,230.7 | 2,532 | 9,396.3 | 198 | 577.7 |
| General Services..... | 5 | 20.4 | — | — | 5 | 20.4 | — | — |
| National Film Board | 543 | 2,189.4 | — | — | 543 | 2,189.4 | 73 | 106.4 |
| National Health and Welfare | 2,932 | 9,334.7 | 681 | 1,072.8 | 3,613 | 10,407.5 | 464 | 684.0 |
| Departmental Administration..... | 289 | 828.7 | 1 | 0.9 | 289 | 829.6 | — | — |
| National Health Branch..... | 1,689 | 5,923.4 | 613 | 994.8 | 2,302 | 6,918.2 | 464 | 684.0 |
| Welfare Branch..... | 848 | 2,227.2 | — | — | 848 | 2,227.2 | — | — |
| Civil Defence..... | 106 | 355.4 | 68 | 77.1 | 174 | 432.5 | — | — |
| National Research Council | 2,121 | 8,159.4 | — | — | 2,121 | 8,159.4 | 449 | 1,557.8 |
| National Revenue | 14,655 | 47,608.4 | — | — | 14,655 | 47,608.4 | 2 | 6.4 |
| Customs and Excise Division..... | 7,233 | 25,281.7 | — | — | 7,233 | 25,281.7 | 2 | 6.4 |
| Taxation Division..... | 7,407 | 22,232.1 | — | — | 7,407 | 22,232.1 | — | — |
| Income Tax Appeal Board..... | 15 | 94.6 | — | — | 15 | 94.6 | — | — |
| Northern Affairs and National Resources | 1,509 | 5,313.7 | 638 | 2,779.6 | 2,147 | 8,093.3 | 401 | 753.5 |
| Departmental Administration..... | 122 | 420.8 | — | — | 122 | 420.8 | — | — |
| Northern Research Co-ordination Centre..... | 4 | 11.9 | — | — | 4 | 11.9 | — | — |
| National Parks Branch..... | 495 | 1,476.2 | 482 | 2,325.7 | 977 | 3,801.9 | 306 | 585.2 |
| Engineering and Water Resources Branch..... | 211 | 954.7 | 1 | 55.4 | 211 | 1,010.1 | 24 | 79.5 |
| Northern Administration and Lands Branch..... | 301 | 999.3 | 96 | 161.5 | 397 | 1,160.8 | 65 | 76.7 |
| Forestry Branch..... | 295 | 1,222.8 | 60 | 237.0 | 355 | 1,459.8 | 5 | 8.4 |
| Canadian Government Travel Bureau..... | 81 | 228.0 | — | — | 81 | 228.0 | 1 | 3.7 |
| Post Office | 21,827 | 64,125.5 | — | — | 21,827 | 64,125.5 | — | — |
| Departmental Administration..... | 262 | 953.1 | — | — | 262 | 953.1 | — | — |
| Operations..... | 21,047 ⁸ | 61,584.4 ⁸ | — | — | 21,047 | 61,584.4 | — | — |
| Transportation..... | 98 | 352.2 | — | — | 98 | 352.2 | — | — |
| Financial Services..... | 420 | 1,235.8 | — | — | 420 | 1,235.8 | — | — |
| Privy Council | 91 | 338.5 | — | — | 91 | 338.5 | — | — |
| Privy Council Office..... | 84 | 324.6 | — | — | 84 | 324.6 | — | — |
| Prime Minister's residence..... | 7 | 13.9 | — | — | 7 | 13.9 | — | — |

For footnotes, see end of table, p. 102.

3.—Federal Government Employees by Department and Principal Branch or Service as at Mar. 31, 1956, and Regular Earnings for the Year Ended Mar. 31, 1956—concluded

| Department and Branch or Service | Classified | | Prevailing Rate | | Totals | | Casuals and Others | |
|---|----------------|------------------|-----------------|-----------------|---------------------------|-----------------------------|--------------------|-----------------|
| | Em- ployees | Earnings | Em- ployees | Earnings | Em- ployees | Earnings | Em- ployees | Earnings |
| | No. | \$'000 | No. | \$'000 | No. | \$'000 | No. | \$'000 |
| Public Archives and National Library | 95 | 330.3 | — | — | 95 | 330.3 | 4 | 7.7 |
| Public Archives..... | 66 | 240.6 | — | — | 66 | 240.6 | 4 | 7.7 |
| National Library..... | 29 | 89.7 | — | — | 29 | 89.7 | — | — |
| Public Printing and Stationery | 478 | 1,530.1 | 975 | 3,528.8 | 1,453 | 5,058.9 | — | — |
| Public Works | 4,653 | 12,515.8 | 2,204 | 3,255.4 | 7,014² | 16,808.2² | 704 | 2,272.0 |
| Departmental Administration and Fire Prevention..... | 267 | 804.7 | — | — | 267 | 804.7 | — | — |
| Property and Building Management Branch..... | 3,514 | 7,012.4 | 2,194 | 3,131.0 | 5,708 | 10,143.4 | 80 | 411.1 |
| Building Construction Branch..... | 241 | 2,127.8 | — | — | 241 | 2,127.8 | — | — |
| Harbours and Rivers Engineering Branch..... | 472 | 2,063.1 | 10 | 124.4 | 639 | 3,224.5 | 624 | 1,860.9 |
| Development Engineering Branch..... | 159 | 507.8 | — | — | 159 | 507.8 | — | — |
| Royal Canadian Mounted Police | 5,757 | 19,604.0 | — | — | 5,757 | 19,604.0 | 475 | 1,292. |
| Headquarters Administration and Training Establishments.. | 887 | 2,143.5 | — | — | 887 | 2,143.5 | — | — |
| Force..... | 4,870 | 17,460.5 | — | — | 4,870 | 17,460.5 | 475 | 1,292.0 |
| Secretary of State | 592 | 2,172.5 | — | — | 592 | 2,172.5 | — | — |
| Trade and Commerce | 3,326 | 11,137.2 | — | — | 3,326 | 11,137.2 | 339 | 615.5 |
| General Administration..... | 505 | 2,210.2 | — | — | 505 | 2,210.2 | 290 | 513.8 |
| Exhibitions..... | 31 | 168.6 | — | — | 31 | 168.6 | — | — |
| Standards Branch..... | 340 | 1,228.2 | — | — | 340 | 1,228.2 | — | — |
| Dominion Bureau of Statistics... | 1,438 | 4,105.0 | — | — | 1,438 | 4,105.0 | — | — |
| Canada Grain Act..... | 985 | 3,351.3 | — | — | 985 | 3,351.3 | 49 | 101.7 |
| Special..... | 27 | 73.9 | — | — | 27 | 73.9 | — | — |
| Transport | 9,158 | 26,912.5 | 1,085 | 3,291.9 | 11,313² | 33,432.6² | 853 | 1,915.3 |
| Departmental Administration... | 488 | 1,575.6 | — | — | 488 | 1,575.6 | — | — |
| Canal Services..... | 1,073 | 3,198.7 | 431 | 1,349.8 | 1,542 | 4,662.0 | 390 | 659.9 |
| Marine Services..... | 1,926 | 3,646.6 | 234 | 658.3 | 3,192 | 7,419.6 | 120 | 188.9 |
| Railway and Steamship Services..... | 7 | 20.1 | — | — | 7 | 20.1 | — | — |
| Air Services..... | 5,449 | 17,381.6 | 420 | 1,283.8 | 5,869 | 18,665.4 | 343 | 1,066.5 |
| Air Transport Board..... | 46 | 192.3 | — | — | 46 | 192.3 | — | — |
| Board of Transport Commissioners for Canada..... | 144 | 775.3 | — | — | 144 | 775.3 | — | — |
| Canadian Maritime Commission..... | 25 | 122.3 | — | — | 25 | 122.3 | — | — |
| Veterans Affairs | 11,470 | 35,890.3 | 1,420 | 2,196.0 | 12,890 | 38,086.3 | 15 | 23.7 |
| Departmental Administration... | 621 | 1,817.1 | 2 | 6.9 | 623 | 1,824.0 | — | — |
| District Services Administration... | 666 | 1,903.9 | — | — | 666 | 1,903.9 | 9 | 13.2 |
| Veterans Welfare Services..... | 805 | 2,865.1 | — | — | 805 | 2,865.1 | 3 | 6.3 |
| Treatment Services..... | 7,646 | 22,489.7 | 1,418 | 2,189.1 | 9,064 | 24,678.8 | 1 | 2.1 |
| Prosthetic Services..... | 214 | 702.5 | — | — | 214 | 702.5 | — | — |
| Veterans Bureau..... | 153 | 522.5 | — | — | 153 | 522.5 | — | — |
| War Veterans Allowance Board Administration..... | 30 | 132.8 | — | — | 30 | 132.8 | — | — |
| Veterans Insurance..... | 20 | 64.8 | — | — | 20 | 64.8 | — | — |
| Canadian Pension Commission... | 412 | 1,741.2 | — | — | 412 | 1,741.2 | 2 | 2.1 |
| Soldier Settlement and Veterans' Land Act..... | 903 | 3,650.7 | — | — | 903 | 3,650.7 | — | — |
| Grand Totals | 145,083 | 444,888.5 | 23,524 | 63,708.1 | 170,535 | 514,923.5 | 12,300 | 32,114.7 |

¹ No employment at year end.² Totals and items under this heading include ships' officers and crews.³ Excludes field parties with reported earnings of \$128,039.⁴ Excludes field parties with reported earnings of \$322,448.⁵ Excludes employees of Post Offices with revenues of less than \$20,000 which reported 13,930 employees for the month of March 1956 and earnings of \$17,983,178 during the year.⁶ Excluding 40,357 casual employees with earnings of \$2,333,765 employed for the Christmas rush.

4.—Employees and Earnings in Agency and Proprietary Corporations and Other Quasi-Independent Government Bodies of the Federal Government by Month, Years Ended Mar. 31, 1955 and 1956.

NOTE.—Figures for 1952-53 are given at p. 119 of the 1955 Year Book and for 1953-54 at p. 132 of the 1956 Year Book.

| Month | 1954-55 | | 1955-56 | |
|----------------|-----------|------------|-----------|------------|
| | Employees | Earnings | Employees | Earnings |
| | No. | \$ | No. | \$ |
| April..... | 139,528 | 38,881,847 | 136,852 | 39,049,419 |
| May..... | 142,408 | 38,106,684 | 140,798 | 38,930,267 |
| June..... | 145,434 | 40,074,807 | 143,795 | 39,879,095 |
| July..... | 148,613 | 40,338,784 | 146,808 | 41,962,332 |
| August..... | 149,196 | 39,964,936 | 148,181 | 41,595,838 |
| September..... | 148,099 | 40,317,161 | 146,726 | 41,962,779 |
| October..... | 145,592 | 40,270,554 | 145,186 | 40,210,292 |
| November..... | 143,767 | 40,007,899 | 144,668 | 40,809,760 |
| December..... | 141,950 | 39,376,178 | 144,042 | 41,459,743 |
| January..... | 140,610 | 37,662,611 | 143,269 | 39,568,781 |
| February..... | 138,175 | 39,011,119 | 146,404 | 41,716,655 |
| March..... | 137,648 | 38,471,774 | 145,717 | 41,951,599 |

PART V.—CANADA'S EXTERNAL RELATIONS

The growth of Canada's international status is reflected in the development of the Department of External Affairs. A review of the organization and development of that Department is given in the 1952-53 Year Book, pp. 101-104.

Section 1.—Diplomatic Representation as at May 15, 1957

NOTE.—Changes in this listing subsequent to May 15, 1957 and names of current Representatives are given in *Canadian Representatives Abroad and Representatives of Other Countries in Canada*, published quarterly and obtainable from the Queen's Printer, Ottawa, price 25 cents.

1.—Canadian Representation Abroad

| Country and Year Representation Established | Present Status of Representative | Address |
|--|--|--|
| Argentina.....1941 | Ambassador..... | Bartolomé Mitre, 478, Buenos Aires |
| Australia.....1939 | High Commissioner..... | State Circle, Canberra |
| Austria.....1952 | Ambassador..... | Karntnerring 5, Vienna |
| Belgium.....1939 | Ambassador..... | 35, rue de la Science, Brussels |
| Brazil.....1941 | Ambassador..... | Avenida Presidente Wilson, 165, Rio de Janeiro |
| Ceylon.....1953 | High Commissioner..... | 6 Gregory's Road, Cinnamon Gardens, Colombo |
| Chile.....1942 | Ambassador..... | Avenida General Bulnes 129, Santiago |
| Colombia.....1953 | Ambassador..... | Rm. 613 Edificio Henry Faux, Avenida Jimenez de Quesada 7-25, Bogota |
| Cuba.....1945 | Ambassador..... | 7(A) Avenida No. 21404 Reparto Biltmore, Marianao, Havana |
| Czechoslovakia.....1943 | Chargé d'Affaires <i>ad interim</i> | Krakovská 22, Prague, 2 |
| Denmark.....1946 | Ambassador..... | 4 Trondhjems Plads, Copenhagen |
| Dominican Republic.....1954 | Ambassador..... | 410 Calle El Conde, Ciudad Trujillo |
| Egypt.....1954 | Ambassador..... | 6, Sharia Rustom, Garden City, Cairo |
| Finland.....1949 | Minister..... | Borgmasterbrinken C-3. 32, Helsinki |
| France.....1928 | Ambassador..... | 72 avenue Foch, Paris xvi |
| Germany.....1950 | Ambassador..... | Zitellmannstrasse 22, Bonn |
| Greece.....1943 | Ambassador..... | 31, avenue Vassilissis Sofias, Athens |
| Haiti.....1954 | Ambassador..... | Route du Canape Vert, St. Louis de Turgeau, Port-au-Prince |
| Ireland.....1949 | Minister..... | c/o Canadian Embassy, Fridtjof Nansens Plass 5, Oslo, Norway |
| India.....1947 | High Commissioner..... | 4 Aurangzeb Road, New Delhi |

1.—Canadian Representation Abroad—concluded

| Country and Year Representation Established | Present Status of Representative | Address |
|--|---|--|
| Indonesia.....1953 | Ambassador..... | Djalan Budi Kemuliaan No. 6, Djakarta |
| Ireland.....1940 | Ambassador..... | 92 Merrion Square West, Dublin |
| Israel.....1954 | Ambassador..... | Farmers' Bldg., 8 Rehov Hakirya, Tel Aviv |
| Italy.....1947 | Ambassador..... | Via G. B. de Rossi, 27, Rome |
| Japan.....1929 | Ambassador..... | 16 Omote - Machi, 3 - Chome, Akasaka Minato-ku, Tokyo |
| Lebanon.....1954 | Minister..... | Immeuble Alpha, rue Clemenceau, Beirut |
| Luxembourg.....1945 | Minister..... | c/o Canadian Embassy, 35, rue de la Science Brussels, Belgium |
| Mexico.....1944 | Ambassador..... | Edificio Internacional, Paseo de la Reforma, No. 1, Mexico City |
| Netherlands.....1939 | Ambassador..... | 5 and 7 Sophialaan, The Hague |
| New Zealand.....1940 | High Commissioner..... | Government Life Insurance Bldg., Custom-house Quay, C.I., Wellington |
| Norway.....1943 | Ambassador..... | Fridtjof Nansens Plass 5, Oslo |
| Pakistan.....1950 | High Commissioner..... | Metropole Hotel, Victoria Road, Karachi |
| Peru.....1944 | Ambassador..... | Edificio Boza, Plaza San Martin, Lima |
| Poland.....1943 | Chargé d'Affaires <i>ad interim</i> | 31 Ulica Katowicka, Saska Kepa, Warsaw |
| Portugal.....1952 | Ambassador..... | Rua de Buenos Aires No. 1, Lisbon |
| Spain.....1953 | Ambassador..... | Edificio España, Plaza de España 2, Madrid |
| Sweden.....1947 | Ambassador..... | Strandvagon 7-C, Stockholm |
| Switzerland.....1947 | Ambassador..... | 88 Kirchenfeldstrasse, Berne |
| Turkey.....1947 | Ambassador..... | Mudafaaî Huduk Caddesi, No. 10, Canakaya, Ankara |
| Union of South Africa.....1940 | High Commissioner..... | Kerry Bldg., 238 Vermeulen St., Pretoria |
| Union of Soviet Socialist Republics.....1943 | Ambassador..... | 23 Starokonyushenny Pereulok, Moscow |
| United Kingdom.....1880 | High Commissioner..... | Canada House, Trafalgar Square, London, S.W. 1 |
| United States of America....1927 | Ambassador..... | 1746 Massachusetts Avenue, N. Washington, D.C. |
| Uruguay.....1952 | Ambassador..... | 1409 Avenida Agraciada, Piso 7º, Montevideo |
| Venezuela.....1952 | Ambassador..... | Edificio Pan - American, Puente Urapal Candelaria, Caracas |
| Yugoslavia.....1943 | Ambassador..... | Proliterskih Brigada 69, Belgrade |
| Other Missions | | |
| Canadian Military Mission (1946)... | Head of Mission..... | Perthshire Block, Olympic Stadium, Headquarters Berlin, (British Sector) |
| Canadian Delegation to the North Atlantic Council (1952) and Organization for European Economic Co-operation (1950)..... | Representative..... | 77, rue d'Auteuil, Paris xvi |
| Permanent Delegation of Canada to the United Nations (1948)... | Permanent Representative.... | Rm. 504, 620 Fifth Ave., New York 20, N.Y. |
| Permanent Delegation of Canada to European Office of the United Nations (1948)..... | Permanent Representative.... | 16, Parc du Chateau Banquet, Geneva |
| Consulates | | |
| Brazil.....1947 | Consul..... | Rua 7 de Abril 252, São Paulo |
| Germany.....1956 | Consul..... | Ferdinandstrasse 69, Hamburg |
| Republic of the Philippines.....1949 | Consul General..... | Ayala Bldg., Juan Luna St., Manila |
| United States of America....1948 | Consul General..... | 532 Little Bldg., 80 Boylston St., Boston 16, Mass. |
| ".....1947 | Consul General..... | Suite 1412, Garland Bldg., 111 North Wabash Ave., Chicago, Ill. |
| ".....1948 | Consul..... | 1035 Penobscot Bldg., Detroit 26, Mich. |
| ".....1953 | Consul General..... | Associated Realty Bldg., Los Angeles 14, Cal. |
| ".....1952 | Consul General..... | 215 International Trade Mart, New Orleans 12, La. |
| ".....1943 | Consul General..... | 620 Fifth Ave., New York, N.Y. |
| ".....1947 | Honorary Vice-Consul..... | 443 Congress St., Portland, Maine |
| ".....1948 | Consul General..... | 400 Montgomery St., San Francisco 4, Cal. |
| ".....1953 | Consul General..... | 1407 Tower Bldg., 7th Ave. at Olive Way, Seattle 1, Wash. |

2.—Representation of Other Countries in Canada

| Country and Year Representation Established | Present Status of Representative | Address |
|---|---|--|
| Argentina.....1941 | Ambassador..... | 211 Stewart Street, Ottawa |
| Australia.....1940 | High Commissioner..... | 100 Sparks Street, Ottawa |
| Austria.....1952 | Minister..... | 445 Wilbrod Street, Ottawa |
| Belgium.....1937 | Ambassador..... | 168 Laurier Avenue East, Ottawa |
| Brazil.....1941 | Ambassador..... | 305 Stewart Street, Ottawa |
| Ceylon.....1957 | High Commissioner..... | Beacon Arms, Ottawa |
| Chile.....1942 | Ambassador..... | Suite 215, 56 Sparks Street, Ottawa |
| China.....1942 | Ambassador..... | 201 Wurtemberg Street, Ottawa |
| Colombia.....1953 | Ambassador..... | Apt. 29, The Roxborough, Ottawa |
| Cuba.....1945 | Ambassador..... | 690 Island Park Drive, Ottawa |
| Czechoslovakia.....1942 | Minister..... | 171 Clemow Avenue, Ottawa |
| Denmark.....1946 | Ambassador..... | 451 Daly Avenue, Ottawa |
| Dominican Republic.....1954 | Ambassador..... | 190 Buena Vista Road, Rockcliffe Park, Ont. |
| Egypt.....1954 | Ambassador..... | The Roxborough, Ottawa |
| Finland.....1948 | Chargé d'Affaires..... | 140 Wellington Street, Ottawa |
| France.....1928 | Ambassador..... | 42 Sussex Street, Ottawa |
| Germany.....1951 | Ambassador..... | 580-582 Chapel Street, Ottawa |
| Greece.....1942 | Ambassador..... | Chateau Laurier Hotel, Ottawa |
| Haiti.....1954 | Ambassador..... | Suite 6, 130 Sparks Street, Ottawa |
| Iceland.....1948 | Minister..... | Chateau Laurier Hotel, Ottawa |
| India.....1947 | High Commissioner..... | 200 MacLaren Street, Ottawa |
| Indonesia.....1953 | Ambassador..... | 275 MacLaren Street, Ottawa |
| Iran.....1956 | Minister..... | The Roxborough, Ottawa |
| Ireland.....1939 | Ambassador..... | 140 Wellington Street, Ottawa |
| Israel.....1953 | Ambassador..... | 45 Powell Avenue, Ottawa |
| Italy.....1947 | Ambassador..... | 172 MacLaren Street, Ottawa |
| Japan.....1928 | Ambassador..... | 88 Metcalfe Street, Ottawa |
| Lebanon.....1955 | Minister..... | 470 Wilbrod Street, Ottawa |
| Luxembourg.....1950 | Minister..... | Chateau Laurier Hotel, Ottawa |
| Mexico.....1944 | Ambassador..... | 88 Metcalfe Street, Ottawa |
| Netherlands.....1939 | Ambassador..... | 12 Marlborough Avenue, Ottawa |
| New Zealand.....1942 | High Commissioner..... | 77 Metcalfe Street, Ottawa |
| Norway.....1942 | Ambassador..... | 140 Wellington Street, Ottawa |
| Pakistan.....1949 | High Commissioner..... | 505 Wilbrod Street, Ottawa |
| Peru.....1944 | Ambassador..... | 539 Island Park Drive, Ottawa |
| Poland.....1942 | Chargé d'Affaires <i>ad interim</i> | 10 Range Road, Ottawa |
| Portugal.....1952 | Ambassador..... | 285 Harmer Avenue, Ottawa |
| Spain.....1953 | Ambassador..... | 149 Daly Avenue, Ottawa |
| Sweden.....1943 | Ambassador..... | 720 Manor Road, Rockcliffe Park, Ont. |
| Switzerland.....1946 | Ambassador..... | 5 Marlborough Avenue, Ottawa |
| Turkey.....1944 | Ambassador..... | 197 Wurtemberg Street, Ottawa |
| Union of South Africa.....1938 | High Commissioner..... | 9 Rideau Gate, Ottawa |
| Union of Soviet Socialist Republics.....1942 | Ambassador..... | 285 Charlotte Street, Ottawa |
| United Kingdom.....1928 | High Commissioner..... | Earncliffe, Ottawa |
| United States of America.....1927 | Ambassador..... | 100 Wellington Street, Ottawa |
| Uruguay.....1948 | Chargé d'Affaires <i>ad interim</i> | The Roxborough, Ottawa |
| Venezuela.....1953 | Ambassador..... | The Roxborough, Ottawa |
| Yugoslavia.....1942 | Ambassador..... | 17 Blackburn Avenue, Ottawa |

Section 2.—International Activities*

Subsection 1.—Canada and Commonwealth Relations 1955-57

Close and friendly consultation, long the symbol of Commonwealth association, continued during the period under review, June 1, 1955 to Apr. 30, 1957. Though 1956 was in certain respects a critical year, the differences of policy revealed over the Suez issue between the United Kingdom and certain of its Commonwealth colleagues were followed by a very real desire to remove the causes of these differences. Canada and the United Kingdom worked closely together throughout the year and, in unspectacular but vital day-to-day relations, continued that frank and friendly consultation which is the life blood of the Commonwealth connection. Not only at the Prime Ministers' Meeting, but in the United Nations, in Colombo Plan matters, at NATO conferences, and in such official

* Prepared by the Department of External Affairs.

bodies as the United Kingdom-Canada Continuing Committee on Trade and Economic Affairs, the ties existing between Canada and the senior member of the Commonwealth were daily strengthened and maintained.

In June and July 1956, a Meeting of Commonwealth Prime Ministers was held in London under the chairmanship of Sir Anthony Eden. Sir Anthony, Mr. Strijdom of South Africa, Mr. Mohamad Ali of Pakistan, and Mr. Bandaranaike of Ceylon, attended as Prime Ministers for the first time. Noting the growing recognition of the devastating power of thermo-nuclear weapons, the Prime Ministers agreed that the peaceful use of nuclear energy constitutes a valuable new sphere for co-operation within the Commonwealth as well as with other countries. The Prime Ministers went on to review significant developments in the Soviet Union and relate them to the context of international relations and world affairs. In acknowledging Ceylon's statement of intent to become a republic, the Prime Ministers accepted and recognized its continuing membership in the Commonwealth.

In November and December 1956, the Hon. Paul Martin, then Minister of National Health and Welfare, carried out a goodwill tour of Asia *en route* to and from the meetings of the Colombo Plan Consultative Committee in Wellington, New Zealand, at which he was Chairman of the Canadian Delegation. The tour included Australia and Asiatic countries including India, Pakistan and Ceylon where he inspected Canadian Colombo Plan projects.

During 1956, Ottawa welcomed many prominent Commonwealth statesmen including the Prime Minister, the Foreign Secretary and the Secretary of State for Commonwealth Relations of the United Kingdom; the Prime Minister, the Minister for External Affairs and the Minister of Trade of Australia; the Prime Minister of New Zealand; the Prime Minister of Ceylon; the Prime Minister of India; the Premier and the Minister of Education of Western Nigeria; the Minister of Labour of Jamaica; and the Premier of the Australian State of Victoria. In addition, the Deputy Prime Minister and the Minister of Finance of the Federation of Rhodesia and Nyasaland, and the Minister of National Resources of India came to Ottawa to discuss problems of common interest with Canadian Government leaders and officials.

Severe flooding occurred in several sections of India and Pakistan in July and August 1956. In August the Canadian Government authorized a gift to Pakistan of 25,000 tons of Canadian No. 4 wheat valued at \$1,500,000, a gift separate and distinct from Colombo Plan contributions. The Canadian Red Cross gave India flood relief supplies valued at \$25,000. Emergency assistance in the form of \$50,000 worth of wheat flour was sent to relieve hurricane victims in the British West Indies. In addition, \$50,000 worth of relief supplies was provided by the West Indies Hurricane Relief Fund, sponsored jointly by the Canadian Exporters Association and the Canadian Red Cross.

At the Eleventh Session of the United Nations General Assembly the Delegation of the Union of South Africa announced that, in view of the Assembly's continuing insistence on discussing matters which were within the internal jurisdiction of the Government of South Africa, the South African Permanent Representative to the United Nations would be withdrawn and that South Africa would, in future, maintain only token representation at the United Nations.

On Mar. 23, 1956, the Republic of Pakistan was proclaimed. This had been forecast at the Prime Ministers' Meeting of January 1955 at which the Prime Ministers had accepted and recognized Pakistan's continuing membership in the Commonwealth after it became a republic. Canada sent its Ambassador to Tokyo, Mr. T. C. Davis, as special envoy to the inauguration ceremonies in Karachi.

The period was marked by a series of steps leading to the eventual granting of independence to certain United Kingdom dependent territories. On Feb. 8, negotiations between the United Kingdom and representatives of Malaya were successfully concluded with the signing of an agreement to cover the transfer of full sovereignty to the Government of the

Federation, with Aug. 31, 1957, set as the date for full independence "if possible". Negotiations conducted at London in March 1957 resulted in agreement on complete internal autonomy for the State of Singapore, with the United Kingdom remaining responsible for its foreign relations and defence.

A bill granting independence to Ghana was passed by the United Kingdom Parliament in February 1957. The granting of independence on Mar. 6, 1957, was marked by extensive celebrations in Accra, at which Canada was represented by the Hon. George Prudham, then Minister of Mines and Technical Surveys. On the same day Canada's then Prime Minister, in a statement in the House of Commons, welcomed Ghana's entry into the Commonwealth as a fully independent nation and announced that Canada would open a diplomatic mission in Accra and appoint a Canadian High Commissioner as soon as it was possible to do so. Ghana became a member of the United Nations on Mar. 8, its application for membership being sponsored by Australia, Canada, Ceylon, India, New Zealand, Pakistan and the United Kingdom.

Delegations from Jamaica, the Leeward Islands, Barbados, the Windward Islands and Trinidad, and observers from British Guiana and British Honduras discussed a proposed Caribbean Federation with the United Kingdom Government at London in February 1956. On Aug. 2 the Queen gave assent to enabling legislation for the establishment of the Federation. Lord Hailes has been appointed the first Governor General and Commander-in-Chief of the West Indies.

The United Kingdom Government reaffirmed its intention to grant internal self-government to any region in Nigeria which desired it. In March 1957 the Legislative Assembly of the Federation of Nigeria passed a unanimous resolution requesting the Federation's independence within the Commonwealth in 1959. A constitutional conference was slated to be held in London at the end of May 1957.

During the review period, changes of government took place in a number of Commonwealth countries. At elections held in April 1956 in Ceylon a coalition of parties headed by Mr. S. W. R. D. Bandaranaike defeated Sir John Kotelawala's United National party. In September, following political disputes between the two wings of the country, Mr. Mohamad Ali resigned as Prime Minister of Pakistan and was succeeded by Mr. H. S. Suhrawardy. The Prime Minister of the United Kingdom, Sir Anthony Eden, resigned because of ill health in January 1957 and was succeeded by Mr. Harold Macmillan. In India a general election, the second since Independence, was held in March and April 1957. Since the first general election the number of States had been reduced and the borders of the new ones redrawn on linguistic lines. The Congress Party secured another impressive victory at the polls, increasing its share of the popular vote from 45 p.c. to 48 p.c., although it gained only one additional seat in the Lok Sabha (House of the People).

The Prime Ministers of the United Kingdom and Canada met in Bermuda on Mar. 25 and 26, 1957, immediately following a meeting between Prime Minister Macmillan of the United Kingdom and President Eisenhower of the United States. Discussions were held on topics of concern to both countries, including the Middle East situation, relations between the United Kingdom and Europe and Canadian-United Kingdom trade.

It was announced on Apr. 17, 1957, that a meeting of the Commonwealth Prime Ministers would be held at London on June 26, 1957.

Subsection 2.—Canada and the United Nations

The period June 1, 1955, to Apr. 30, 1957, was perhaps the most difficult experienced by the United Nations in the eleven years of its existence. There was no war but there was no tranquillity in the world and, since the United Nations is a reflection of the world as it exists, these strains and quarrels were mirrored in the United Nations. Nevertheless, the United Nations continued to make progress on many fronts in its efforts to safeguard peace and advance the economic and social welfare of all peoples through international co-operation. Canada has continued to play an active role in United Nations affairs.

During this period, Canada continued to be represented in the Middle East on the United Nations Truce Supervision Organization (UNTSO). Major-General E. L. M. Burns of Canada served as Chief of Staff for UNTSO from August 1954 until November 1956 when the United Nations Emergency Force (UNEF) was established and Major-General Burns became its Commander. Canada continued to provide observers also for service in Kashmir with the United Nations Military Observer Group (UNMOG). By the end of the period under review the Canadian Government had also provided more than 1,000 Army and RCAF personnel for service with UNEF, the total strength of which was about 6,000 men representing contingents from ten countries—Brazil, Canada, Colombia, Denmark, Finland, India, Indonesia, Norway, Sweden and Yugoslavia. Continuation of the armistice in Korea permitted the withdrawal of Canadian military forces and by Apr. 30, 1957, only a small Canadian medical detachment numbering thirty officers and men remained in this former theatre of hostilities.

Developments in important United Nations bodies during the review period are summarized below.

General Assembly.—The tenth session of the General Assembly was held in New York from Sept. 20 to Dec. 20, 1955, under the presidency of Sr. José Maza of Chile. The then Minister of National Health and Welfare, Hon. Paul Martin, was Chairman of the Canadian Delegation. The General Assembly held its first emergency special session from Nov. 1 to 10, 1956, and its second emergency special session from Nov. 4 to 10, 1956. The Canadian Representatives at these two emergency sessions were the Hon. L. B. Pearson, then Secretary of State for External Affairs and Dr. R. A. Mackay, Permanent Representative of Canada to the United Nations. The eleventh session of the General Assembly was held from Nov. 12, 1956, to Mar. 8, 1957; the Hon. L. B. Pearson was Chairman of the Canadian Delegation which attended this session.

The most notable developments during the tenth session were concerned with the admission of sixteen new members to the United Nations, and with disarmament and atomic energy. After a deadlock of nearly ten years, broken only occasionally by the admission of a very few mutually acceptable candidates, the General Assembly finally enlarged its membership from sixty to seventy-six nations and became, as it was originally intended to be, very largely representative of the entire world. The Canadian Delegation contributed substantially to this result by taking the initiative in attempting to break the deadlock over United Nations membership. The developments on disarmament were disappointingly inconclusive at the tenth session after the hopes raised the year before. After the failure of the Conference of Foreign Ministers in November 1955, the General Assembly passed a resolution on disarmament by a large majority, but there was no great enthusiasm and little sense of achievement since the short-lived unanimity of the ninth session could not be recaptured. However, a significant contribution to the tenth session was the unanimous approval of the resolutions on peaceful uses of atomic energy and on the effects of atomic radiation. On another issue, the Arab-Israeli dispute, there was no compromise during the tenth session and there was a prolonged and bitter exchange of accusation encompassing every aspect of the Palestine impasse. The representation of China at the United Nations remained unchanged after the tenth and eleventh sessions of the General Assembly. While there was majority support for the contention that no change in that representation should take place and that a representative of the Nationalist Government of China should continue to hold the seat, resolutions were introduced and pressure increased at the General Assembly in support of the view that a representative of the People's Republic of China should speak for China.

The two emergency sessions and the regular eleventh session of the General Assembly held between Nov. 1, 1956 and Mar. 8, 1957, provided the Canadian Delegation with grounds for satisfaction as well as for apprehension. Five new members were admitted—Ghana, Japan, Morocco, Sudan and Tunisia—bringing the membership of the United Nations to eighty-one countries. The most crucial issues considered were those of Hungary and the Middle East. The difficulties in the Middle East following the seizure of the Suez

Canal in the summer of 1956 and the Soviet armed intervention in Hungary confronted the United Nations with its most serious crises since the Korean War. The General Assembly took action, particularly by establishing the United Nations Emergency Force, to secure the ceasefire in the Middle East and the withdrawal of Israeli, French and United Kingdom troops. The Hungarian uprising began on Oct. 23, 1956. The General Assembly called on the Soviet Union to withdraw its forces from Hungary, but this request met with no success since neither the Soviet Union nor the Kadar Government in Hungary was willing to comply with the resolutions of the United Nations. Neither was the Secretary-General of the United Nations nor his observers allowed to enter Hungary to investigate the circumstances of the uprising. No concrete results had developed from the disarmament negotiations by April 1957.

Security Council.—Canada was not a member of the Security Council during this period. The source of chief concern to the Council continued to be the threat of hostilities between Israel and its Middle Eastern neighbours. Increasingly grave crises were occurring between Israel and three of its four Arab neighbours. Israel was unanimously condemned by the Security Council on Jan. 19, 1956, for what was called a flagrant violation of the 1948 ceasefire when it replied to a Syrian shooting incident on Lake Tiberias by mounting a large-scale military raid against Syrian positions. The Secretary-General of the United Nations visited the region on a number of occasions and endeavoured to arrange measures which would reduce the existing tensions. Then on Apr. 5, 1956, Gaza was shelled by the Israelis and hostilities were halted only by the intervention of the United Nations Truce Supervision Organization. However, reprisals continued for some weeks by Egyptian-trained fedayeen against Israel because of the shelling of Gaza. In September and October 1956 there was again a sharp increase in violence on the Jordan-Israel border. In mid-October Jordan appealed to the Security Council, and the Council was considering this appeal when, on Oct. 29, Israeli forces invaded Egypt. Earlier, on Sept. 26, 1956, the Security Council began to study the Suez Canal question and by mid-October had achieved unanimous agreement on six principles which should govern the settlement of the Suez Canal dispute. Immediately after Israel launched its attack against Egypt on Oct. 29, followed on Oct. 30 by the twelve-hour notice from the Governments of the United Kingdom and France that their forces would intervene, the Security Council met and called for the withdrawal of Israel's forces behind the armistice line and requested other countries to give no assistance to Israel. This Security Council proposal was vetoed by France and the United Kingdom. Because of this lack of unanimity among the Council's permanent members, there was invoked for the first time the General Assembly's 1950 "Uniting for Peace" resolution and the problem of the Middle East hostilities was referred to the General Assembly.

Among other matters of importance considered by the Security Council during the period under review were the admission of new members to the United Nations, the Kashmir dispute submitted by Pakistan against India, and the proposal to call a general conference of United Nations' members for the purpose of reviewing the Charter.

Economic and Social Council (ECOSOC).—Canada began serving its third three-year term of office on the Economic and Social Council on Jan. 1, 1956. Canada's previous years of service were from 1946-48 and again from 1950-52. In the period reviewed by this article the Council held its twentieth, twenty-first, twenty-second and twenty-third sessions. As of the end of April 1957 Canada was a member of four of ECOSOC's eight functional commissions—Population, Statistical, Narcotic Drugs and International Commodity Trade.

Ever since the United Nations was established, its ten Specialized Agencies have been the chief instruments through which member states have pooled their efforts in trying to achieve the goals of higher standards of living, full employment and conditions of economic and social progress. Canada is a member of all the United Nations Specialized

Agencies and has tried to encourage and develop their programs.* The responsibilities which the Specialized Agencies have assumed are so vast, and the opportunities for useful work so numerous, that great difficulty has been experienced in setting limits to and priorities for their programs. Canada has endeavoured to have the programs of the Specialized Agencies planned according to a system of priorities and has encouraged the Agencies to demonstrate techniques, give guidance and generally stimulate national efforts rather than engage themselves in direct operations. In July 1956 the International Finance Corporation (IFC) came into being as an affiliate of one of the Specialized Agencies (the International Bank for Reconstruction and Development). Canada had become a member of the IFC in October 1955 and at that time had purchased shares to the value of \$3,600,000. The actual establishment of IFC in July 1956 was the result of thirty countries subscribing the necessary funds in order to promote investment of capital in private enterprise in under-developed countries.

ECOSOC gave further consideration to the possibility of establishing a Special United Nations Fund for Economic Development (SUNFED) which would provide grants and long-term low interest loans to help the governments of under-developed countries strengthen their economies.

The United Nations and its Specialized Agencies have undertaken for many years special programs of assistance to overcome certain acute problems and serious deficiencies which exist in various areas. Since money for these special programs is not available through the regular United Nations budget or through the regular budgets of the Specialized Agencies (these regular budgets are raised by assessing all member States using a scale of assessment which is based mainly on the yardstick of gross national product), it must be raised from voluntary contributions made by member States. At the present time the United Nations is sponsoring five special programs: the United Nations Expanded Programme of Technical Assistance (ETAP); the United Nations Children's Fund (UNICEF); the United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA); the United Nations Refugee Fund (UNREF); and Aid for Korea (UNKRA)—which is expected to be wound up by 1958. Canada has made substantial contributions to these five programs and pledged to contribute, in 1956, \$650,000 to UNICEF, \$500,000 to UNRWA, \$125,000 to UNREF and \$1,800,000 to ETAP. For 1957, Canada pledged to contribute \$650,000 to UNICEF, \$750,000 to UNRWA, \$200,000 to UNREF and \$2,000,000 to ETAP.

In addition to these voluntary contributions, Canada paid an annual assessment to the United Nations as well as an assessment to each of the ten Specialized Agencies totalling about \$1,400,000 for 1956. Canada's share of the United Nations normal administrative budget for 1956 was at the rate of 3.63 p.c., or \$1,600,000.

Trusteeship Council.—During the period under review, the Trusteeship Council held five sessions—its regular sixteenth, seventeenth and eighteenth sessions as well as a special session at the end of 1955 and another special session in December 1956. Canada has not yet been elected to membership on the Trusteeship Council. As of the end of April 1957, the membership of the Trusteeship Council consisted of the seven States which administer trust territories (Australia, Belgium, France, Italy, New Zealand, United Kingdom, United States) and an equal number of non-administering States; always included in the latter group are the two permanent members of the Security Council, the U.S.S.R. and China, which do not administer trust territories. At the end of April 1957 the other five non-administering countries on the Trusteeship Council were Burma, Guatemala, Haiti, India and Syria.

During the period under review, the most outstanding development was the ending of the trusteeship of United Kingdom-administered Togoland. This territory voted on May 9, 1956, to enter into a union with the Gold Coast which became the independent state of Ghana on Mar. 6, 1957. The trust territory of Eastern Togoland under French

* Canada's activities in connection with three of these Specialized Agencies—United Nations Educational, Scientific and Cultural Organization, Food and Agricultural Organization and International Labour Organization are dealt with elsewhere in this volume. *See Index.*

administration made satisfactory political advances during the period, and a six-nation commission, to which Canada will provide a member, will visit the territory in the summer of 1957 to examine the practical operation of its new constitution and of the institutions established under it. In the review period, United Nations missions visited trust territories in the Pacific which are administered by Australia, New Zealand and the United States. Canadian policy on trusteeship matters before the General Assembly is governed by a careful weighing, within the provisions of the United Nations Charter, of the responsibilities, rights and aspirations of both the administering states and the indigenous populations.

International Court of Justice.—To “adjust and settle international disputes in conformity with Justice and International Law” is one of the purposes of the United Nations and it was therefore essential to establish a judicial arm for the Organization. The Statute of the International Court of Justice is an integral part of the Charter of the United Nations. All members of the United Nations are *ipso facto* parties to the Statute of the Court. A state which is not a member of the United Nations may, nevertheless, become a party to the Statute of the Court on conditions to be determined in each case by the General Assembly upon the recommendation of the Security Council. Thus, at the moment, the total number of parties to the Statute is 85—81 members of the United Nations and 4 non-members (Liechtenstein, San Marino, Switzerland and the Federal Republic of Germany). The Court is composed of 15 judges who are elected in individual capacities. Judge John E. Read of Canada was elected to the Court in 1946 and again in 1949. His present term of office expires in 1958.

Subsection 3.—Canada and the North Atlantic Treaty

Within less than two years of the end of World War II in 1945 and the establishment of the United Nations hopes of a lasting peace gave place to growing anxiety. The United Nations Security Council, which had been given responsibility for maintaining world-wide security, was deliberately prevented by the U.S.S.R. representatives from fulfilling this function. The Soviet Union maintained its armed forces after the War at a level that insured to itself a preponderance of military strength in Europe. The Soviet Government blocked attempts by the Western Powers to reach a peace settlement in Europe and communist parties were used as an instrument of Soviet policy to sabotage Western European efforts at economic recovery and political co-operation. Under these circumstances, the countries of the Atlantic community felt themselves in grave peril of Soviet aggression and communist subversion and therefore took special collective measures under the United Nations Charter to maintain peace.

The first step in this direction was taken in the spring of 1948 when Belgium, France, Luxembourg, the Netherlands and the United Kingdom signed the Brussels Treaty establishing Western Union. On Apr. 4, 1949, as a result of negotiations between these countries and Canada and the United States, the North Atlantic Treaty was signed at Washington, D.C. This Treaty was accepted by all major groups of opinion in Canada and was passed without a single dissenting vote in Parliament.

The original signatories of the Treaty were Belgium, Canada, Denmark, France, Iceland, Italy, Luxembourg, the Netherlands, Norway, Portugal, the United Kingdom and the United States. In September 1951 it was agreed that Greece and Turkey should be invited to accede to the Treaty and they were admitted in February 1952. In October 1954 a protocol to the North Atlantic Treaty inviting the Federal Republic of Germany to join NATO was approved together with related arrangements which provided for the establishment of a Western European Union (composed of the Brussels Powers, the Federal Republic of Germany and Italy) and for the restoration of full sovereignty to the Federal Republic of Germany. These measures, designed to bring the Federal Republic of Germany into close and enduring association with the Atlantic Community of free nations, were adopted following the failure of the European Defence Community Treaty which was

rejected by the French Assembly in August 1954. On May 6, 1955, the Federal Republic of Germany deposited in Washington its instrument of accession to the North Atlantic Treaty and thus joined NATO as its fifteenth member.

The terms of the Treaty and the organization of the Council and subordinate committees are dealt with in the 1954 Year Book at pp. 113-115.

Developments during 1955-57.*—The North Atlantic Council continued in permanent session at Paris, France, under the chairmanship of the Secretary-General Lord Ismay. Mr. L. D. Wilgress remained the Permanent Representative of Canada to the Council. In addition to the regular meetings of the Permanent Representatives, the Council met in Ministerial Session at Paris in December 1955, in May 1956 and again in December of that year.

These Ministerial meetings afforded the Foreign and Defence Ministers of the NATO countries a useful opportunity to exchange views on the current political developments affecting the Alliance, and to review the progress made in maintaining and developing an effective military organization to assure the security of its members. The year 1956 was of particular importance since it witnessed the beginning of a reappraisal of NATO military planning, designed to take into account NATO's most recent estimates of Soviet intentions and capabilities, and the various types of new weapons available for NATO defence. Of particular interest was the approval of a political directive regarding future military planning, which reaffirmed *inter alia* that NATO, as a defensive alliance, should have sufficient land forces in Europe to act as a shield against any sudden aggression, adequate air and naval forces to retaliate against the aggressor, nuclear weapons for use in the event of overt Soviet military aggression, and the ability to deal locally with situations short of all-out war such as infiltrations, incursions and limited hostile actions. Consideration was also given to the increasing cost of defence and to the problems involved in trying to maintain large conventional forces to deal with limited attacks, in addition to forces equipped with atomic and nuclear weapons.

In their survey of the military capabilities of the Alliance and their assessment of the progress achieved during 1956, member governments found the situation generally encouraging, and noted with particular approval the efforts made by the NATO military authorities to provide NATO forces with new modern weapons.

NATO's activities during the period under review were also marked by the efforts of member governments to improve and extend NATO co-operation in non-military fields, and to develop greater unity within the Atlantic community. The North Atlantic Council appointed at its meeting in May 1956 a Committee of Three Ministers, consisting of Dr. Martino, the Foreign Minister of Italy, Mr. Halvard Lange, Foreign Minister of Norway and the Hon. L. B. Pearson, then Secretary of State for External Affairs for Canada, to advise the Council on ways and means to achieve these objectives. With the aid of questionnaires, supplemented by consultations at the ministerial level with representatives of the other NATO governments, the Committee of Three submitted a report which was approved in principle by the Ministers at the meeting of December 1956 and all recommendations accepted. The report was an important landmark in the development of NATO activities in the non-military field. It stressed the need of members of the Alliance in present circumstances to develop common policies by full and timely consultation on issues of common concern. The appointment of Mr. Paul-Henri Spaak as Secretary-General of the Organization, in succession to Lord Ismay, gave added significance to the approval accorded the recommendations of the Committee of Three for wider authority and powers for the Secretary-General. This office has now become a political as well as an administrative one.

Thus the period under review has been extremely active for the NATO Alliance and the Organization, despite differences which any group of fifteen sovereign countries is bound to experience from time to time, still displays much resiliency, and continues to be as necessary, in the face of Soviet policy and actions in Europe and elsewhere, as it was at the time of its establishment in 1949.

* June 1, 1955 to Apr. 30, 1957.

Canadian Contributions to NATO.—Canada continued in 1956-57 to support NATO with contributions of Armed Forces to the unified NATO commands, with material assistance to other NATO countries and with financial contributions to common budgets. The 2nd Canadian Infantry Brigade, which in late 1955 replaced the 1st Infantry Brigade in the Soest area of Germany, carried out extensive training exercises independently and also in conjunction with other NATO forces in the Northern Army group in Northwest Europe. The Canadian contribution of an air division of 12 jet fighter squadrons to SACEUR remained unchanged. The Royal Canadian Navy had 40 ships assigned to duties connected with the defence of the Canada-United States area and for the protection of any convoys under the control of SACLANT.

Between Apr. 1, 1950 and Mar. 31, 1957, arrangements under the Canadian Mutual Aid Program provided for the transfer by Canada to the non-North American members of NATO of military aid estimated to value \$1,418,400,000.

The main elements of the program include: (a) training in Canada of aircrew for other NATO countries—under the NATO aircrew training program some 4,500 pilots and navigators from ten NATO nations have successfully completed training at RCAF establishments; (b) transfers of equipment from service stocks or from current production for the Services; (c) direct transfers of equipment from current production; and (d) contributions towards infrastructure programs and NATO budgets. Canada's estimated share of the cost of the NATO common infrastructure program for the year ended Mar. 31, 1958, was \$17,000,000. Total Canadian expenditure for NATO Headquarters budgets for the same year is estimated at \$1,300,000.

Subsection 4.—Canada and the Colombo Plan

The Colombo Plan for Co-operative Economic Development in South and South-East Asia was conceived at the Commonwealth Meeting of Foreign Ministers held at Colombo, Ceylon, Jan. 9-14, 1950. Although the Colombo Plan was initiated by Commonwealth governments, it is not exclusively a Commonwealth program. It is designed to assist in the economic development of all countries and territories in the general area of South and South-East Asia. Its membership now includes Australia, Burma, Cambodia, Canada, Ceylon, India, Indonesia, Japan, Laos, Nepal, New Zealand, Pakistan, the Philippines, Thailand, Malaya (Malaya and Singapore), the United Kingdom, British Borneo (North Borneo, Brunei and Sarawak) and Vietnam, as well as the United States which is also engaged in a substantial program of economic aid in the same region.

Supervision of the Colombo Plan is in the hands of a Consultative Committee of Foreign Ministers of the member countries, who meet once a year to review projects, exchange views on policy matters and prepare an annual report. It is, as its name implies, a "consultative" body; no collective policy decisions binding member countries are taken by its meetings. To develop the technical assistance side of the Plan, a Council for Technical Co-operation, on which Canada is represented, meets regularly in Colombo. The Technical Co-operation Programme, though an integral part of the Colombo Plan, is designed to supplement the technical assistance activities of the United Nations and the Specialized Agencies in the area.

From the beginning of the Plan in 1950 through April 1958 Canada will have made available a total of \$196,800,000 for capital and technical assistance projects in South and South-East Asia.

While eight separate countries are now receiving capital assistance from Canada, the largest contributions have so far been made in India, Pakistan and Ceylon. The Canadian contribution has consisted primarily of direct assistance to various development projects (equipment for multi-purpose irrigation and hydro-electric projects, the Canada-India NRX atomic reactor, transportation equipment, fishing boats and surveys of resources). It has also included goods which the recipient governments have been able to use as a

means of raising some of the money needed to meet local costs of development programs (wheat, flour, copper, aluminum and railway equipment). Canadian aid has been helping these countries in both ways, to develop their economies and raise their standards of living.

Under the Technical Assistance Programme up to Mar. 31, 1957, about 650 persons from many countries in the area had been received for training in Canada in a great variety of technical fields and almost 100 Canadian experts had been sent abroad for service in Colombo Plan countries in such fields as fisheries, refrigeration, marine biology, agriculture, soil erosion, vocational training, accountancy and the maintenance of tractors and agricultural machinery. Additional Canadian experts have been employed on aerial resources survey teams and in the installation and operation of capital equipment. Equipment for technical training in various fields has also been supplied.

The Consultative Committee of the Colombo Plan held annual meetings at Singapore in October 1955, and at Wellington, New Zealand, in December 1956. At the Singapore meeting it was agreed that the Colombo Plan should be extended from July 1957 to June 1961, and that the future of the Plan should be considered by the Consultative Committee at the 1957 meeting. Reports of the Committee* on progress and future plans are published after each annual meeting; each report also contains sections describing the activities of member countries.

* Obtainable from the Queen's Printer, Ottawa.

CHAPTER III.—POPULATION*

CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

This Chapter presents only a limited summary of the voluminous data on population recorded by the Censuses of Canada. More detailed information and extended analyses are published in the Census volumes and reports which are obtainable from the Queen's Printer or the Dominion Bureau of Statistics, Ottawa. A list of such publications and their prices is available on request.

Section 1.—History of the Census

A brief account of the early censuses of Canada is given under this heading in the 1956 Year Book at pp. 146-149. More detailed information on the history of census-taking in Canada may be found in Volume XI (Administrative Report) of the 1951 Census of Canada, in the Administrative Report of the 1941 Census of Canada, and in Volume I of the 1931 Census of Canada.

Section 2.—The Censuses of 1951 and 1956

The ninth Decennial Census of Canada taken in 1951 was one of the most significant in the country's history. Coming at the mid-point of the century, it provided a means of measuring Canada's development during the first half of the century. Following a decade of great international upheavals—World War II and the immediate postwar adjustment period—it reflected the widespread economic and social changes occurring during that period. Also, with the admission of Newfoundland into Confederation in 1949, it represented Canada's first census as a nation of ten provinces.

* Revised in the Census (Demography) Division, Dominion Bureau of Statistics.

The modern census has become a highly complex administrative and technical operation. Each enumeration has shown considerable advance over its predecessor in planning, organization, enumeration and processing as well as in coverage. The 1951 Census marked the introduction of many new techniques—a number of processing operations were decentralized and were performed for the first time in regional offices located across Canada; mark-sense equipment was used in conjunction with high-speed electronic tabulating machines; and specialized printing processes were employed to speed the release of published reports and volumes. The results of that Census and descriptions of census methods are contained in the printed record* which will form an important source of reference for many years to come.

Commencing around the turn of the century when the western part of Canada was in its early and rapid stages of development, there were censuses of the three Prairie Provinces of Manitoba, Saskatchewan and Alberta at each mid-decade period up to and including 1946. The decision to replace these censuses by a nation-wide census of modified design in 1956 was influenced by the extremely large increases and shifts in the population of Canada shown by intercensal estimates since 1951, and by extensive changes occurring in the agricultural economy of the country. For example, Canada's population increased by over 2,000,000 in the 1951-56 period, a gain almost comparable with that for the complete ten-year period between the decennial censuses of 1941 and 1951. Agricultural changes were characterized by the continuance of the postwar trend toward farm mechanization resulting in fewer and larger farms, often through amalgamation of existing farms, and causing notable changes in types of farming operations and in farm employment.

Such rapidly changing conditions in population and agriculture indicated the need for benchmarks at the five-year period in order to provide accurate estimates over the longer interval of ten years. Also, it was essential to have more up-to-date information on the distribution of the expanded population across the country since 1951 for the many uses required by agencies of government, business, social research, etc. One of the chief values of the 1956 Census is that it provides basic information on population and agriculture for small areas at a point midway between the decennial censuses, information which cannot be obtained from intercensal estimates.

It was realized that if a complete census of Canada were to be undertaken in 1956 it must, of necessity, be of simplified design and limited to basic essentials. Questionnaires were restricted to five 'statistical' inquiries on population (sex, age, marital status, relationship to head of household, and farm or non-farm residence) as compared with 26 in 1951; there were 76 questions on agriculture (farm areas, crop acreages, livestock, farm machinery and farm labour) as compared with approximately 200 in 1951. Such phases of the full-scale 1951 Census operations as the sample Housing Census, the Census of Distribution (retail, wholesale and service establishments), and the Census of the Fisheries were not included in the 1956 program. Also beyond the scope of the modified 1956 Census were population inquiries on birthplace, schooling, origins, religions and languages, as well as economic characteristics dealing with the occupations and industries of persons in the labour force. For such data, the 1951 Census represents the most recent census information available.

Section 3.—Growth of the Population

The population history of Canada, from the first census in 1666 when 3,215 persons were enumerated to the 1956 Census when the figure was 16,080,791, reveals an outstanding rate of population growth. Each census period, of course, contributed to this growth but the periods 1901-11, 1911-21, 1941-51, and 1951-56, merit particular mention. In the decade 1901-11, Canada's population increased by 34.2 p.c., the highest rate of growth in the nation's history. Immigration was the main factor in this gain, 1,800,000

* *Ninth Census of Canada 1951*, Vols. I-XI, \$25, Queen's Printer or Dominion Bureau of Statistics, Ottawa.

persons having entered the country during the period. Despite World War I with its accompanying population losses through casualties, emigration and the influenza epidemic, Canada's population increased by 21.9 p.c. in the 1911-21 decade.

The period 1941-51 recorded the largest numerical gain on record for a ten-year period, 2,502,774 persons being added to the 1941 population during the decade. Newfoundland's entry into Confederation in 1949 accounted for 361,416 of this increase. Immigration, although greatly restricted during the war years, was resumed during the last part of the decade and brought about a net gain of approximately 424,000 in population through immigrant arrivals. This period was also characterized by high birth rates, and the natural increase was just under 2,000,000 for the ten-year period.

The Census of 1956 showed the population of Canada to be 16,080,791, an increase of 2,071,362 or 14.8 p.c. over the 1951 figure of 14,009,429. This numerical increase was exceeded only in the 1941-51 period, and is all the more remarkable since it occurred in only five years. Immigration and a continuation of the high birth rates of the previous decade were characteristic also of the 1951-56 period.

1.—Numerical and Percentage Distribution of Population by Province, Decennial Census Years 1901-51 and 1956

NOTE.—Populations for the decennial Census years 1871, 1881 and 1891 are given in the 1956 Year Book, p. 149. The populations of the Prairie Provinces in 1906, 1916, 1926, 1936 and 1946 will be found in the 1951 edition, p. 131.

| Province or Territory | 1901 | 1911 | 1921 | 1931 | 1941 | 1951 | 1956 |
|-----------------------------|------------------|------------------|------------------------------|-------------------|-------------------|-------------------|-------------------|
| NUMERICAL DISTRIBUTION | | | | | | | |
| Nfld..... | 1 | 1 | 1 | 1 | 1 | 361,416 | 415,074 |
| P.E.I..... | 103,259 | 93,728 | 88,615 | 88,038 | 95,047 | 98,429 | 99,285 |
| N.S..... | 459,574 | 492,338 | 523,837 | 512,846 | 577,962 | 642,584 | 694,717 |
| N.B..... | 331,120 | 351,889 | 387,876 | 408,219 | 457,401 | 515,697 | 554,616 |
| Que..... | 1,648,898 | 2,005,776 | 2,360,510 | 2,874,662 | 3,331,882 | 4,055,681 | 4,628,378 |
| Ont..... | 2,182,947 | 2,527,292 | 2,933,662 | 3,431,683 | 3,787,655 | 4,597,542 | 5,404,933 |
| Man..... | 255,211 | 461,394 | 610,118 | 700,139 | 729,744 | 776,541 | 850,040 |
| Sask..... | 91,279 | 492,432 | 757,510 | 921,785 | 895,992 | 831,728 | 880,665 |
| Alta..... | 73,022 | 374,295 | 588,454 | 731,605 | 796,169 | 939,501 | 1,123,116 |
| B.C..... | 178,657 | 392,480 | 524,582 | 694,263 | 817,861 | 1,165,210 | 1,398,464 |
| Yukon..... | 27,219 | 8,512 | 4,157 | 4,230 | 4,914 | 9,096 | 12,190 |
| N.W.T..... | 20,129 | 6,507 | 8,143 | 9,316 | 12,028 | 16,004 | 19,313 |
| Canada..... | 5,371,315 | 7,206,643 | 8,787,949¹ | 10,376,786 | 11,506,655 | 14,009,429 | 16,080,791 |
| PERCENTAGE DISTRIBUTION | | | | | | | |
| Nfld..... | ... | ... | ... | ... | ... | 2.58 | 2.58 |
| P.E.I..... | 1.92 | 1.30 | 1.01 | 0.85 | 0.83 | 0.70 | 0.62 |
| N.S..... | 8.56 | 6.83 | 5.96 | 4.94 | 5.02 | 4.59 | 4.32 |
| N.B..... | 6.16 | 4.88 | 4.41 | 3.94 | 3.97 | 3.68 | 3.45 |
| Que..... | 30.70 | 27.83 | 26.86 | 27.70 | 28.96 | 28.95 | 28.78 |
| Ont..... | 40.64 | 35.07 | 33.39 | 33.07 | 32.92 | 32.82 | 33.61 |
| Man..... | 4.75 | 6.40 | 6.94 | 6.75 | 6.34 | 5.54 | 5.29 |
| Sask..... | 1.70 | 6.84 | 8.62 | 8.88 | 7.79 | 5.94 | 5.48 |
| Alta..... | 1.36 | 5.19 | 6.70 | 7.05 | 6.92 | 6.71 | 6.98 |
| B.C..... | 3.33 | 5.45 | 5.97 | 6.69 | 7.11 | 8.32 | 8.70 |
| Yukon..... | 0.51 | 0.12 | 0.05 | 0.04 | 0.04 | 0.06 | 0.08 |
| N.W.T..... | 0.37 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 |
| Canada..... | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |

¹ Populations of Newfoundland (not part of Canada until 1949) were: 1901, 220,984; 1911, 242,619; 1921, 263,033; 1931, 281,500 (estimated); 1941, 303,300 (estimated); and 1945, 321,819.

² Includes 485 members of the Royal Canadian Navy recorded separately in 1921.

Section 4.—Intercensal Estimates and Movement of Population

Intercensal estimates of the population have many uses. They constitute a base for vital statistics rates, per capita figures of production and trade, and other analyses. More recently they have proved useful for estimates of labour force and other population characteristics of data collected in sample surveys.

Estimates are constructed for the total population of Canada and for each province and become available about the date to which they apply, June 1 of each year. The estimates of population begin with the preceding census counts, to which are added the births of the intervening census year or years and from which the deaths are subtracted; immigrants are added and emigrants subtracted. The next succeeding census serves as a check on the accuracy of the annual estimates. On emigration no precise information is available. The Bureau receives yearly from the United States the number of persons who gave Canada as country of last permanent residence before entering the United States as immigrants; and from the United Kingdom's Board of Trade the number of emigrants from Canada taking up permanent residence in the United Kingdom. These data, however, are not available from other countries.

Since estimates for successive years are independently calculated from the latest census, the best estimate of the balance of population change is not obtained by subtracting the figure for one year from that for the year following. Much interest attaches to the year-to-year balance and the following statement is presented, which gives all available data on that point.

| <i>Year</i> | <i>Calendar Year Data¹</i> | | | | <i>Estimated Population as at June 1¹</i> |
|-------------------|---------------------------------------|----------------|-----------------------------|--------------------------|--|
| | <i>Births</i> | <i>Deaths</i> | <i>Natural Increase</i> | <i>Immig- ration</i> | |
| 1941 | 255,317 | 114,639 | 140,678 | 9,329 | 11,490,000 |
| 1942..... | 272,313 | 112,978 | 159,335 | 7,576 | 11,637,000 |
| 1943..... | 283,580 | 118,635 | 164,945 | 8,504 | 11,778,000 |
| 1944..... | 284,220 | 116,052 | 168,168 | 12,801 | 11,929,000 |
| 1945..... | 288,730 | 113,414 | 175,316 | 22,722 | 12,055,000 |
| 1946..... | 330,732 | 114,931 | 215,801 | 71,719 | 12,268,000 |
| 1947..... | 359,094 | 117,725 | 241,369 | 64,127 | 12,527,000 |
| 1948..... | 347,307 | 119,384 | 227,923 | 125,414 | 12,799,000 |
| 1949..... | 366,139 | 124,047 | 242,092 | 95,217 | 13,423,000 |
| 1950..... | 371,071 | 123,789 | 247,282 | 73,912 | 13,688,000 |
| 1951 | 380,101 | 125,454 | 254,647 | 194,391 | 13,984,000 |
| 1952..... | 402,527 | 125,950 | 276,577 | 164,498 | 14,434,000 |
| 1953..... | 416,825 | 127,381 | 289,444 | 168,868 | 14,820,000 |
| 1954..... | 435,142 | 124,520 | 310,622 | 154,227 | 15,260,000 |
| 1955..... | 441,681 | 128,154 | 313,527 | 109,946 | 15,669,000 |
| 1956 | 449,473 | 131,585 | 317,888 | 164,857 | 16,049,000 |

¹ Exclusive of the Yukon and Northwest Territories. Newfoundland included from 1949

2.—Estimates of Population by Province, Intercensal Years 1941-57

NOTE.—At every census the previous post-censal estimates, made at June 1 each year, are adjusted to the newly recorded population figures. Figures for all provinces for 1941, 1951 and 1956 and for the Prairie Provinces for 1946 are census figures. Figures for 1867-1904 will be found in the 1936 Year Book, p. 141; for 1905-30 in the 1946 edition, p. 127; and for 1931-40 in the 1952-53 edition, p. 143.

| Year | Nfld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Yukon | N.W.T. | Canada |
|-----------|-------|--------|------|------|-------|-------|------|-------|-------|-------|-------|--------|--------|
| | '000 | '000 | '000 | '000 | '000 | '000 | '000 | '000 | '000 | '000 | '000 | '000 | '000 |
| 1941..... | ... | 95 | 578 | 457 | 3,332 | 3,788 | 730 | 896 | 796 | 818 | 5 | 12 | 11,507 |
| 1942..... | ... | 90 | 591 | 464 | 3,390 | 3,884 | 724 | 848 | 776 | 870 | 5 | 12 | 11,654 |
| 1943..... | ... | 91 | 606 | 463 | 3,457 | 3,915 | 723 | 838 | 785 | 900 | 5 | 12 | 11,795 |
| 1944..... | ... | 91 | 611 | 461 | 3,500 | 3,963 | 727 | 836 | 808 | 932 | 5 | 12 | 11,946 |
| 1945..... | ... | 92 | 619 | 467 | 3,560 | 4,000 | 727 | 833 | 808 | 949 | 5 | 12 | 12,072 |
| 1946..... | ... | 94 | 608 | 478 | 3,629 | 4,093 | 727 | 833 | 803 | 1,003 | 8 | 16 | 12,292 |
| 1947..... | ... | 94 | 615 | 488 | 3,710 | 4,176 | 739 | 836 | 825 | 1,044 | 8 | 16 | 12,551 |
| 1948..... | ... | 93 | 625 | 498 | 3,788 | 4,275 | 746 | 838 | 854 | 1,082 | 8 | 16 | 12,823 |
| 1949..... | 345 | 94 | 629 | 508 | 3,882 | 4,378 | 757 | 832 | 885 | 1,113 | 8 | 16 | 13,447 |
| 1950..... | 351 | 96 | 638 | 512 | 3,969 | 4,471 | 768 | 833 | 913 | 1,137 | 8 | 16 | 13,712 |
| 1951..... | 361 | 98 | 643 | 516 | 4,056 | 4,598 | 776 | 832 | 939 | 1,165 | 9 | 16 | 14,009 |
| 1952..... | 374 | 100 | 653 | 526 | 4,174 | 4,788 | 798 | 843 | 973 | 1,205 | 9 | 16 | 14,459 |
| 1953..... | 383 | 101 | 663 | 533 | 4,269 | 4,941 | 809 | 861 | 1,012 | 1,248 | 9 | 16 | 14,845 |
| 1954..... | 395 | 101 | 673 | 540 | 4,388 | 5,115 | 823 | 873 | 1,057 | 1,295 | 10 | 17 | 15,287 |
| 1955..... | 406 | 100 | 683 | 547 | 4,517 | 5,266 | 839 | 878 | 1,091 | 1,342 | 11 | 18 | 15,698 |
| 1956..... | 415 | 99 | 695 | 555 | 4,628 | 5,405 | 850 | 881 | 1,123 | 1,399 | 12 | 19 | 16,081 |
| 1957..... | 426 | 99 | 702 | 565 | 4,758 | 5,622 | 860 | 879 | 1,160 | 1,487 | 12 | 19 | 16,589 |

Table 3 shows the natural increase and the total population increase according to the Census for Canada and the provinces in the periods 1931-41, 1941-51 and 1951-56. The difference between the natural increase and the total increase in population during a period represents the difference between inward and outward movements, i.e., net migration. The net migration data shown for provinces indicate the net movement of population arising partly from interchange of population between provinces and partly from persons entering and leaving the country.

The traditional movement of population on the North American Continent from east to west has not been apparent in Canadian statistics in recent years. The most spectacular changes are shown in the Prairie Provinces and in British Columbia. While the three Prairie Provinces lost by migration about 250,000 persons between 1931 and 1941 and somewhat more from 1941 to 1951, they gained in the period 1951-56. Manitoba lost over 100,000 population between 1931 and 1951 but only 152 persons between 1951 and 1956. Saskatchewan has been a consistent loser since 1931, losing over 15,000 annually during the 1930's, almost 20,000 annually during the 1940's and just under 8,000 annually during the 1950's. Alberta lost over 40,000 persons in the decade 1931-41 but only about 7,000 in the next decade and gained over 60,000 in the five years 1951-56. British Columbia gained at the rate of about 8,000 persons a year during the 1930's, about 23,000 a year

during the 1940's and about 27,000 a year in the first half of the 1950's. On an absolute basis Ontario received more people than did British Columbia but, in relation to its larger population, this growth was only about one-third as important. Quebec had a slight loss between 1931 and 1951 and a considerable gain in the next five years. Nova Scotia gained population during the 1930's but has been losing ever since; the Maritimes as a whole lost 138,000 persons over the quarter-century.

3.—Numerical Changes in the Population of the Provinces through Migration 1931-41, 1941-51, and 1951-56

| Province | Natural Increase | | | Population Increase according to Census | | | Net Migration | | |
|---------------------------------|------------------|------------------|------------------|---|------------------|------------------|----------------|-----------------|-----------------|
| | 1931-41 | 1941-51 | 1951-56 | 1931-41 | 1941-51 | 1951-56 | 1931-41 | 1941-51 | 1951-56 |
| Nfld. | ... | ... | 52,892 | ... | ... | 53,658 | ... | ... | +766 |
| P.E.I. | 9,681 | 15,802 | 8,920 | 7,009 | 3,382 | 856 | -2,672 | -12,420 | -8,064 |
| N.S. | 57,268 | 103,512 | 63,156 | 65,116 | 64,622 | 52,133 | +7,848 | -38,890 | -11,023 |
| N.B. | 59,359 | 99,904 | 59,812 | 49,182 | 58,296 | 38,919 | -10,177 | -41,608 | -20,893 |
| Que. | 459,211 | 736,058 | 474,516 | 457,220 | 723,799 | 572,697 | -1,991 | -12,259 | +98,181 |
| Ont. | 278,488 | 505,034 | 431,913 | 355,972 | 809,887 | 807,391 | +77,484 | +304,853 | +375,478 |
| Man. | 78,083 | 107,510 | 73,651 | 29,605 | 46,797 | 73,499 | -48,478 | -60,713 | -152 |
| Sask. | 131,752 | 135,106 | 85,978 | -25,793 | -64,264 | 48,937 | -157,545 | -199,370 | -37,041 |
| Alta. | 106,405 | 150,303 | 119,307 | 64,564 | 143,332 | 183,615 | -41,841 | -6,971 | +64,308 |
| B.C. | 41,100 | 116,527 | 98,006 | 123,598 | 347,349 | 233,254 | +82,498 | +230,822 | +135,248 |
| Canada¹ | 1,221,787 | 1,972,394 | 1,471,766 | 1,129,869 | 2,141,358 | 2,071,362 | -91,918 | +168,964 | +599,596 |

¹ Includes the Yukon and Northwest Territories.

Section 5.—Density of Population

The land area and density of the population per square mile is given by province in Table 4 for census years 1931, 1941, 1951 and 1956. It will be noted that the figures for 1951 and 1956 include the Province of Newfoundland, a fact that should be kept in mind in comparisons with earlier censuses.

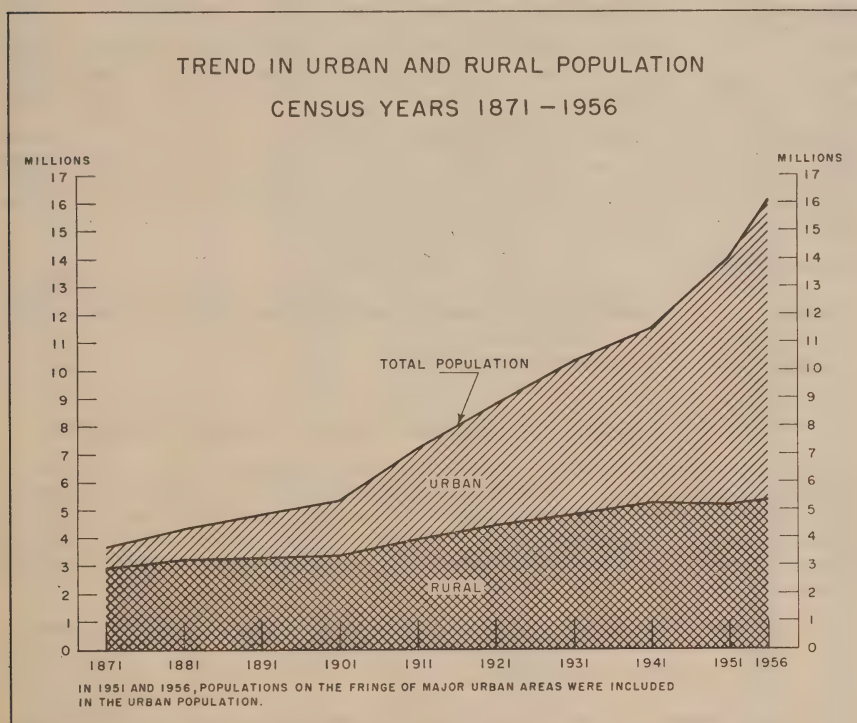
4.—Land Area and Density of Population by Province, Decennial Census Years 1931-51 and 1956

| Province or Territory | Land Area in Sq. Miles | Population, 1931 | | Population, 1941 | | Population, 1951 | | Population, 1956 | |
|--|------------------------|-------------------|-------------------------|-------------------|-------------------------|-------------------|-------------------------|-------------------|-------------------------|
| | | Total | Per Sq. Mile | Total | Per Sq. Mile | Total | Per Sq. Mile | Total | Per Sq. Mile |
| | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| Newfoundland ¹ | 143,045 | ... | ... | ... | ... | 361,416 | 2.53 | 415,074 | 2.90 |
| Prince Edward Island... | 2,184 | 88,038 | 40.31 | 95,047 | 43.52 | 98,429 | 45.07 | 99,285 | 45.46 |
| Nova Scotia | 20,743 | 512,846 | 24.72 | 577,962 | 27.86 | 642,584 | 30.98 | 694,717 | 33.49 |
| New Brunswick | 27,473 | 408,219 | 14.86 | 457,401 | 16.65 | 515,697 | 18.77 | 554,616 | 20.19 |
| Quebec | 523,860 | 2,874,662 | 5.49 | 3,331,882 | 6.36 | 4,055,681 | 7.74 | 4,628,378 | 8.84 |
| Ontario | 333,835 | 3,431,683 | 10.28 | 3,787,655 | 11.35 | 4,597,542 | 13.77 | 5,404,933 | 16.19 |
| Manitoba | 211,775 | 700,139 | 3.31 | 729,744 | 3.45 | 776,541 | 3.67 | 850,040 | 4.01 |
| Saskatchewan | 220,182 | 921,785 | 4.19 | 895,992 | 4.07 | 831,728 | 3.78 | 880,665 | 4.00 |
| Alberta | 248,800 | 731,605 | 2.94 | 796,169 | 3.20 | 939,501 | 3.78 | 1,123,116 | 4.51 |
| British Columbia | 359,279 | 694,263 | 1.93 | 817,861 | 2.28 | 1,165,210 | 3.24 | 1,398,464 | 3.89 |
| Canada (Exclusive of the Territories) | 2,091,176 | 10,363,240 | 5.32² | 11,489,713 | 5.90² | 13,984,329 | 6.69³ | 16,049,288 | 7.67³ |
| Yukon Territory | 205,346 | 4,230 | 0.02 | 4,914 | 0.02 | 9,096 | 0.04 | 12,190 | 0.06 |
| Northwest Territories .. | 1,253,438 | 9,316 | 0.01 | 12,028 | 0.01 | 16,004 | 0.01 | 19,313 | 0.02 |
| Canada | 3,549,960 | 10,376,786 | 3.05⁴ | 11,506,655 | 3.38⁴ | 14,009,429 | 3.95⁴ | 16,080,791 | 4.53⁴ |

¹ Includes Labrador. ² Calculated on the basis of 1,948,131 sq. miles which excludes the land area of Newfoundland. ³ Includes Newfoundland. ⁴ Calculated on the basis of 3,406,915 sq. miles which excludes the land area of Newfoundland.

Section 6.—Rural and Urban Population

Before 1951 the population residing within the boundaries of all incorporated cities, towns and villages of a province was classified by the census as urban and the remainder as rural. Since the laws governing incorporation vary among provinces, there was no uniform line of demarcation between the rural and urban population throughout Canada. In the 1951 Census the aggregate number of residents within a given area, rather than provincial legal status, was the main criterion for the rural-urban classification. The population residing in cities, towns and villages of 1,000 or over, whether incorporated or unincorporated, as well as the population of all parts of census metropolitan areas, was defined as urban and that outside such localities as rural. The 1956 Census definition was substantially the same as that used in the Census of 1951 except that the fringe parts of other major urban areas were classed as urban.



A change in the composition of urban size groups was made also for the 1956 Census. At the 1951 Census, each municipality located within the boundaries of a census metropolitan area was allocated to an urban size group according to its own individual size. In 1956, each such municipality was classified to the same urban size group as the total metropolitan area of which it formed a part. In addition, the fringe parts of other major urban areas were included in the tabulations by urban size groups in the same manner as those of census metropolitan areas.

Table 5 presents the rural and urban population by province or territory for 1956. The rural is further classified by farm and non-farm residence and the urban by size of locality.

5.—Rural Population classified by Farm and Non-farm, and Urban Population classified by Size Group, by Province, Census 1956

| Province or Territory | Rural | | | Urban | | | | |
|-----------------------------|-------------------|------------------|------------------|----------------------|------------------------|------------------------|-----------------------|-------------------|
| | Farm ¹ | Non-farm | Total | 1,000 to 9,999 | 10,000 to 29,999 | 30,000 to 99,999 | 100,000 or Over | Total |
| Newfoundland..... | 10,138 | 219,684 | 229,822 | 84,036 | 23,225 | 77,991 | — | 185,252 |
| Prince Edward Island..... | 43,112 | 25,703 | 68,815 | 13,763 | 16,707 | — | — | 30,470 |
| Nova Scotia..... | 95,381 | 200,242 | 295,623 | 103,996 | 22,551 | — | 272,547 | 399,094 |
| New Brunswick..... | 125,011 | 175,315 | 300,326 | 87,957 | 30,300 | 136,033 | — | 254,290 |
| Quebec..... | 740,387 | 647,153 | 1,387,540 | 649,356 | 288,039 | 293,556 | 2,009,887 | 3,240,838 |
| Ontario..... | 632,153 | 669,861 | 1,302,014 | 605,924 | 403,281 | 801,247 | 2,292,467 | 4,102,919 |
| Manitoba..... | 202,163 | 137,294 | 339,457 | 55,907 | 45,555 | — | 409,121 | 510,583 |
| Saskatchewan..... | 360,651 | 198,011 | 558,662 | 98,272 | 61,118 | 162,613 | — | 322,003 |
| Alberta..... | 327,201 | 160,091 | 487,292 | 121,745 | 62,626 | — | 451,453 | 635,824 |
| British Columbia..... | 95,338 | 276,659 | 371,997 | 168,575 | 67,428 | — | 790,464 | 1,026,467 |
| Yukon Territory..... | 40 | 9,580 | 9,620 | 2,570 | — | — | — | 2,570 |
| Northwest Territories..... | 12 | 14,756 | 14,768 | 4,545 | — | — | — | 4,545 |
| Canada..... | 2,631,587 | 2,734,349 | 5,365,936 | 1,996,646 | 1,020,830 | 1,471,440 | 6,225,939 | 10,714,855 |

¹ Excludes 115,168 persons living on farms in localities classed as urban.

Section 7.—Population of Counties and Census Divisions

Population totals for counties and census divisions for the census years 1951 and 1956 are presented in Table 6. Corresponding information for the census years 1901-41 is given in the 1952-53 Year Book, pp. 137-141. The 1956 populations of the subdivisions of the counties and census divisions may be found in Reports No. 1-1 to 1-5 of the 1956 Census of Canada, and further details for the earlier census years in *Ninth Census of Canada, 1951*, Vol. I.

6.—Populations of the Provinces and Territories by Counties and Census Divisions, Census Years 1951 and 1956

| Province and Division | 1951 | 1956 | Province and Division or County | 1951 | 1956 |
|--------------------------|-------------------|-------------------|----------------------------------|---------------|---------------|
| | No. | No. | | No. | No. |
| Canada..... | 14,009,429 | 16,080,791 | Newfoundland—concluded | | |
| Newfoundland..... | 361,416 | 415,074 | Division No. 8..... | 38,799 | 40,629 |
| Division No. 1..... | 149,543 | 171,213 | Division No. 9..... | 17,051 | 19,970 |
| Division No. 2..... | 22,366 | 23,980 | Division No. 10..... | 7,890 | 10,814 |
| Division No. 3..... | 20,434 | 21,675 | | | |
| Division No. 4..... | 15,982 | 19,631 | Prince Edward Island..... | 98,429 | 99,285 |
| Division No. 5..... | 28,089 | 35,215 | Kings..... | 17,943 | 17,853 |
| Division No. 6..... | 27,968 | 33,738 | Prince..... | 37,735 | 38,007 |
| Division No. 7..... | 35,294 | 38,209 | Queens..... | 42,751 | 43,425 |

**6.—Populations of the Provinces and Territories by Counties and Census Divisions,
Census Years 1951 and 1956—concluded**

| Province and County or Division | 1951 | 1956 | Province and Division | 1951 | 1956 |
|---------------------------------|----------------|----------------|------------------------------|------------------|------------------|
| | No. | No. | | No. | No. |
| Ontario—concluded | | | Manitoba—concluded | | |
| Dufferin..... | 14,566 | 15,569 | Division No. 10..... | 19,311 | 18,928 |
| Dundas..... | 15,818 | 16,978 | Division No. 11..... | 25,101 | 24,567 |
| Durham..... | 30,115 | 35,827 | Division No. 12..... | 23,357 | 23,666 |
| Elgin..... | 55,518 | 59,114 | Division No. 13..... | 24,537 | 24,188 |
| Essex..... | 217,150 | 246,901 | Division No. 14..... | 23,499 | 22,581 |
| Frontenac..... | 66,099 | 76,534 | Division No. 15..... | 12,492 | 12,365 |
| Glengarry..... | 17,702 | 18,693 | Division No. 16..... | 45,692 | 52,564 |
| Grenville..... | 17,045 | 20,563 | Saskatchewan | 831,728 | 880,665 |
| Grey..... | 58,960 | 60,971 | Division No. 1..... | 35,481 | 36,948 |
| Haldimand..... | 24,138 | 26,067 | Division No. 2..... | 34,714 | 33,929 |
| Haliburton..... | 7,670 | 8,012 | Division No. 3..... | 29,477 | 29,686 |
| Halton..... | 44,003 | 68,297 | Division No. 4..... | 16,691 | 17,386 |
| Hastings..... | 74,298 | 83,745 | Division No. 5..... | 48,877 | 47,000 |
| Huron..... | 49,280 | 51,728 | Division No. 6..... | 113,614 | 132,849 |
| Kenora ¹ | 39,212 | 47,156 | Division No. 7..... | 50,421 | 58,448 |
| Kent..... | 79,128 | 85,362 | Division No. 8..... | 35,211 | 39,643 |
| Lambton..... | 74,960 | 89,939 | Division No. 9..... | 54,939 | 52,931 |
| Lanark..... | 35,601 | 38,025 | Division No. 10..... | 37,633 | 35,903 |
| Leeds..... | 38,831 | 43,077 | Division No. 11..... | 84,365 | 102,715 |
| Lennox and Addington..... | 19,544 | 21,611 | Division No. 12..... | 27,896 | 28,484 |
| Lincoln..... | 89,366 | 111,740 | Division No. 13..... | 30,721 | 32,972 |
| Manitoulin..... | 11,214 | 11,060 | Division No. 14..... | 61,615 | 54,971 |
| Middlesex..... | 162,139 | 190,897 | Division No. 15..... | 81,160 | 82,502 |
| Muskoka..... | 24,713 | 25,134 | Division No. 16..... | 45,211 | 45,339 |
| Nipissing..... | 50,517 | 60,452 | Division No. 17..... | 29,048 | 29,049 |
| Norfolk..... | 42,708 | 46,122 | Division No. 18..... | 14,654 | 19,910 |
| Northumberland..... | 33,482 | 38,018 | Alberta | 939,501 | 1,123,116 |
| Ontario..... | 87,088 | 108,440 | Division No. 1..... | 28,317 | 34,496 |
| Oxford..... | 58,818 | 65,228 | Division No. 2..... | 67,694 | 74,991 |
| Parry Sound..... | 27,371 | 28,095 | Division No. 3..... | 27,667 | 30,426 |
| Peel..... | 55,673 | 83,108 | Division No. 4..... | 13,182 | 14,294 |
| Perth..... | 52,584 | 55,057 | Division No. 5..... | 39,055 | 38,120 |
| Peterborough..... | 60,789 | 67,981 | Division No. 6..... | 177,441 | 237,886 |
| Prescott..... | 25,576 | 26,291 | Division No. 7..... | 40,217 | 40,214 |
| Prince Edward..... | 18,559 | 21,145 | Division No. 8..... | 57,513 | 64,168 |
| Rainy River..... | 22,132 | 25,483 | Division No. 9..... | 19,496 | 17,239 |
| Renfrew..... | 66,717 | 78,245 | Division No. 10..... | 70,677 | 71,500 |
| Russell..... | 17,666 | 18,994 | Division No. 11..... | 235,475 | 323,539 |
| Simcoe..... | 106,482 | 127,016 | Division No. 12..... | 39,886 | 44,947 |
| Stormont..... | 48,458 | 56,452 | Division No. 13..... | 46,638 | 45,033 |
| Sudbury..... | 109,590 | 141,975 | Division No. 14..... | 14,443 | 15,846 |
| Thunder Bay..... | 105,367 | 122,890 | Division No. 15..... | 61,800 | 70,417 |
| Timiskaming..... | 50,016 | 50,264 | British Columbia | 1,165,210 | 1,398,464 |
| Victoria..... | 27,127 | 28,248 | Division No. 1..... | 27,628 | 30,584 |
| Waterloo..... | 126,123 | 148,774 | Division No. 2..... | 60,060 | 65,615 |
| Welland..... | 123,233 | 149,606 | Division No. 3..... | 77,686 | 84,871 |
| Wellington..... | 66,930 | 75,691 | Division No. 4..... | 649,238 | 767,921 |
| Wentworth..... | 266,083 | 316,238 | Division No. 5..... | 215,003 | 256,355 |
| York..... | 1,176,622 | 1,440,601 | Division No. 6..... | 41,823 | 54,304 |
| Manitoba | 776,541 | 850,040 | Division No. 7..... | 18,247 | 21,022 |
| Division No. 1..... | 23,861 | 24,888 | Division No. 8..... | 40,276 | 60,067 |
| Division No. 2..... | 38,971 | 39,118 | Division No. 9..... | 20,854 | 37,211 |
| Division No. 3..... | 22,870 | 22,520 | Division No. 10..... | 14,395 | 20,514 |
| Division No. 4..... | 15,036 | 14,630 | Yukon Territory | 9,096 | 12,190 |
| Division No. 5..... | 52,453 | 60,568 | Northwest Territories | 16,004 | 19,313 |
| Division No. 6..... | 330,130 | 368,724 | | | |
| Division No. 7..... | 40,791 | 45,923 | | | |
| Division No. 8..... | 19,565 | 22,171 | | | |
| Division No. 9..... | 58,875 | 72,639 | | | |

¹ Includes district of Patricia.

Section 8.—Population of Incorporated Urban Centres

The growth of Canadian cities with populations of over 30,000 from 1951 to 1956, together with the years of their incorporation as cities, is shown in Table 7. All incorporated cities, towns and villages having populations of 1,000 or over in 1956 are listed in Table 10.

CANADA

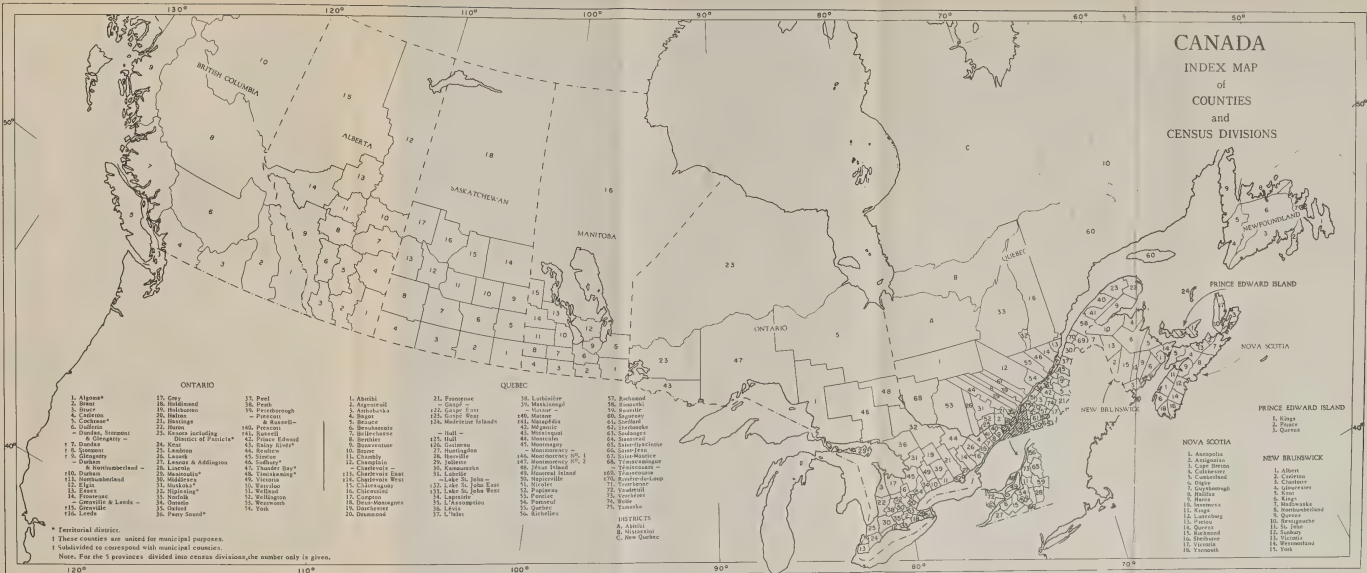
INDEX MAP

of

COUNTIES

and

CENSUS DIVISIONS



1. Algoma*
2. Bruce*
3. Huron*
4. Carleton Place*
5. Cochrane*
6. Dufferin*
7. Dundas, Simcoe & Glengarry*
8. Elgin*
9. Hamilton*
10. Durham*
11. Northumberland*
12. Essex*
13. Kent*
14. Lincoln*
15. Middlesex*
16. Norfolk*
17. Oxford*
18. Peel*
19. Perth*
20. Prescott & Russell*
21. Hastings*
22. Huron*
23. Kenora including District of Patricia*
24. Keweenaw*
25. Lake Huron*
26. Leamington*
27. Lennox & Addington*
28. Lincoln*
29. Manitoulin*
30. Middlesex*
31. Muskoka*
32. Nipissing*
33. North York*
34. Ontario*
35. Ottawa*
36. Parry Sound*

37. Peel
38. Perth
39. Prescott & Russell
40. Hastings
41. Huron
42. Kenora including District of Patricia
43. Keweenaw
44. Lake Huron
45. Leamington
46. Lennox & Addington
47. Lincoln
48. Manitoulin
49. Middlesex
50. Muskoka
51. Nipissing
52. North York
53. Ontario
54. Ottawa
55. Parry Sound

56. Peel
57. Perth
58. Prescott & Russell
59. Hastings
60. Huron
61. Kenora including District of Patricia
62. Keweenaw
63. Lake Huron
64. Leamington
65. Lennox & Addington
66. Lincoln
67. Manitoulin
68. Middlesex
69. Muskoka
70. Nipissing
71. North York
72. Ontario
73. Ottawa
74. Parry Sound

75. Peel
76. Perth
77. Prescott & Russell
78. Hastings
79. Huron
80. Kenora including District of Patricia
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82. Lake Huron
83. Leamington
84. Lennox & Addington
85. Lincoln
86. Manitoulin
87. Middlesex
88. Muskoka
89. Nipissing
90. North York
91. Ontario
92. Ottawa
93. Parry Sound

94. Peel
95. Perth
96. Prescott & Russell
97. Hastings
98. Huron
99. Kenora including District of Patricia
100. Keweenaw
101. Lake Huron
102. Leamington
103. Lennox & Addington
104. Lincoln
105. Manitoulin
106. Middlesex
107. Muskoka
108. Nipissing
109. North York
110. Ontario
111. Ottawa
112. Parry Sound

113. Peel
114. Perth
115. Prescott & Russell
116. Hastings
117. Huron
118. Kenora including District of Patricia
119. Keweenaw
120. Lake Huron
121. Leamington
122. Lennox & Addington
123. Lincoln
124. Manitoulin
125. Middlesex
126. Muskoka
127. Nipissing
128. North York
129. Ontario
130. Ottawa
131. Parry Sound

132. Peel
133. Perth
134. Prescott & Russell
135. Hastings
136. Huron
137. Kenora including District of Patricia
138. Keweenaw
139. Lake Huron
140. Leamington
141. Lennox & Addington
142. Lincoln
143. Manitoulin
144. Middlesex
145. Muskoka
146. Nipissing
147. North York
148. Ontario
149. Ottawa
150. Parry Sound

151. Peel
152. Perth
153. Prescott & Russell
154. Hastings
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156. Kenora including District of Patricia
157. Keweenaw
158. Lake Huron
159. Leamington
160. Lennox & Addington
161. Lincoln
162. Manitoulin
163. Middlesex
164. Muskoka
165. Nipissing
166. North York
167. Ontario
168. Ottawa
169. Parry Sound

170. Peel
171. Perth
172. Prescott & Russell
173. Hastings
174. Huron
175. Kenora including District of Patricia
176. Keweenaw
177. Lake Huron
178. Leamington
179. Lennox & Addington
180. Lincoln
181. Manitoulin
182. Middlesex
183. Muskoka
184. Nipissing
185. North York
186. Ontario
187. Ottawa
188. Parry Sound

189. Peel
190. Perth
191. Prescott & Russell
192. Hastings
193. Huron
194. Kenora including District of Patricia
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196. Lake Huron
197. Leamington
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201. Middlesex
202. Muskoka
203. Nipissing
204. North York
205. Ontario
206. Ottawa
207. Parry Sound

208. Peel
209. Perth
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211. Hastings
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213. Kenora including District of Patricia
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215. Lake Huron
216. Leamington
217. Lennox & Addington
218. Lincoln
219. Manitoulin
220. Middlesex
221. Muskoka
222. Nipissing
223. North York
224. Ontario
225. Ottawa
226. Parry Sound

227. Peel
228. Perth
229. Prescott & Russell
230. Hastings
231. Huron
232. Kenora including District of Patricia
233. Keweenaw
234. Lake Huron
235. Leamington
236. Lennox & Addington
237. Lincoln
238. Manitoulin
239. Middlesex
240. Muskoka
241. Nipissing
242. North York
243. Ontario
244. Ottawa
245. Parry Sound

246. Peel
247. Perth
248. Prescott & Russell
249. Hastings
250. Huron
251. Kenora including District of Patricia
252. Keweenaw
253. Lake Huron
254. Leamington
255. Lennox & Addington
256. Lincoln
257. Manitoulin
258. Middlesex
259. Muskoka
260. Nipissing
261. North York
262. Ontario
263. Ottawa
264. Parry Sound

* Territorial district.
 † These counties are united for municipal purposes.
 ‡ Subdivided to correspond with municipal counties.
 Note: For the 5 provinces divided into census divisions, the number only is given.

- NOVA SCOTIA
1. Annapolis
 2. Antigonish
 3. Cape Breton
 4. Colchester
 5. Cumberland
 6. Digby
 7. Guysborough
 8. Halifax
 9. Hants
 10. Inverness
 11. Kings
 12. Lunenburg
 13. Pictou
 14. Queens
 15. Richmond
 16. Shelburne
 17. Victoria
 18. Yarmouth
- NEW BRUNSWICK
1. Albert
 2. Carleton
 3. Charlotte
 4. Gloucester
 5. Kent
 6. Kings
 7. Madawaska
 8. Northumberland
 9. Queens
 10. Restigouche
 11. St. John
 12. Sussex
 13. Victoria
 14. Westmorland
 15. York

7.—Incorporated Cities with Populations of Over 30,000 at the 1956 Census and Comparable Data for 1951

| City and Province | Year of Incorporation as City | Population | | City and Province | Year of Incorporation as City | Population | |
|--------------------------|-------------------------------|------------|-----------|---------------------------|-------------------------------|------------|---------|
| | | 1951 | 1956 | | | 1951 | 1956 |
| | | No. | No. | | | No. | No. |
| Brantford, Ont..... | 1877 | 36,727 | 51,869 | Quebec, Que..... | 1832 | 164,016 | 170,703 |
| Calgary, Alta..... | 1893 | 129,060 | 181,780 | Regina, Sask..... | 1903 | 71,319 | 89,755 |
| Edmonton, Alta..... | 1904 | 159,631 | 226,002 | St. Catharines, Ont..... | 1876 | 37,984 | 39,708 |
| Fort William, Ont..... | 1907 | 34,947 | 39,464 | Saint John, N.B..... | 1785 | 50,779 | 52,491 |
| Guelph, Ont..... | 1879 | 27,386 | 33,860 | St. John's, Nfld..... | 1888 | 52,873 | 57,078 |
| Halifax, N.S..... | 1841 | 85,589 | 93,301 | St. Laurent, Que..... | 1955 | 20,426 | 38,291 |
| Hamilton, Ont..... | 1846 | 208,321 | 239,625 | Sarnia, Ont..... | 1914 | 34,697 | 43,447 |
| Hull, Que..... | 1875 | 43,483 | 49,243 | Saskatoon, Sask..... | 1906 | 53,268 | 72,858 |
| Jacques-Cartier, Que.... | 1951 | 22,450 | 33,132 | Sault Ste. Marie, Ont.... | 1912 | 32,452 | 37,329 |
| Kingston, Ont..... | 1846 | 33,459 | 48,618 | Sherbrooke, Que..... | 1875 | 50,543 | 58,668 |
| Kitchener, Ont..... | 1912 | 44,867 | 59,562 | Sudbury, Ont..... | 1930 | 42,410 | 46,482 |
| Lachine, Que..... | 1909 | 27,773 | 34,494 | Sydney, N.S..... | 1904 | 31,317 | 32,162 |
| London, Ont..... | 1855 | 95,343 | 101,693 | Three Rivers, Que..... | 1857 | 46,074 | 50,483 |
| Moncton, N.B..... | 1890 | 27,334 | 36,003 | Toronto, Ont..... | 1834 | 675,754 | 667,706 |
| Montreal, Que..... | 1832 | 1,021,520 | 1,109,439 | Vancouver, B.C..... | 1886 | 344,833 | 364,844 |
| New Westminster, B.C.... | 1860 | 28,639 | 31,665 | Verdun, Que..... | 1912 | 77,391 | 78,262 |
| Oshawa, Ont..... | 1924 | 41,545 | 50,412 | Victoria, B.C..... | 1862 | 51,331 | 54,584 |
| Ottawa, Ont..... | 1854 | 202,045 | 222,129 | Windsor, Ont..... | 1892 | 120,049 | 121,980 |
| Peterborough, Ont..... | 1905 | 38,272 | 42,698 | Winnipeg, Man..... | 1873 | 235,710 | 255,093 |
| Port Arthur, Ont..... | 1907 | 31,161 | 38,136 | | | | |

For census purposes, metropolitan areas have been established for groups of urban communities that are in close economic, geographic and social relationship. The total population of each of the census metropolitan areas in 1956, with the comparable figure from the 1951 Census covering the same area as in 1956, is shown in Table 8. In this table the metropolitan area has been named after the largest city of each urban group.

8.—Populations of Census Metropolitan Areas 1956 compared with Populations of Same Areas in 1951

| Metropolitan Area | Population | | Metropolitan Area | Population | |
|---------------------|------------|-----------|-----------------------|------------|-----------|
| | 1951 | 1956 | | 1951 | 1956 |
| | No. | No. | | No. | No. |
| Calgary, Alta..... | 140,645 | 200,449 | Saint John, N.B..... | 78,337 | 86,015 |
| Edmonton, Alta..... | 173,748 | 251,004 | St. John's, Nfld..... | 67,313 | 77,991 |
| Halifax, N.S..... | 133,931 | 164,200 | Toronto, Ont..... | 1,117,470 | 1,358,028 |
| Hamilton, Ont..... | 272,327 | 327,831 | Vancouver, B.C..... | 561,960 | 665,017 |
| London, Ont..... | 128,977 | 154,453 | Victoria, B.C..... | 108,285 | 125,447 |
| Montreal, Que..... | 1,395,400 | 1,620,758 | Windsor, Ont..... | 163,618 | 185,865 |
| Ottawa, Ont..... | 292,476 | 345,460 | Winnipeg, Man..... | 354,069 | 409,121 |
| Quebec, Que..... | 274,827 | 309,959 | | | |

The distribution of the population of incorporated urban centres in Canada by size groups is given in Table 9 for the census years 1941, 1951 and 1956.

9.—Populations of Incorporated Cities, Towns and Villages by Size, Census Years 1941, 1951 and 1956

| Size Group | 1941 ¹ | | | 1951 | | | 1956 | | |
|--------------------------|-------------------|------------------|--------------------|---------------|------------------|--------------------|---------------|------------------|--------------------|
| | Urban Centres | Population | P.C. of Total Pop. | Urban Centres | Population | P.C. of Total Pop. | Urban Centres | Population | P.C. of Total Pop. |
| | No. | No. | | No. | No. | | No. | No. | |
| Over 500,000..... | 2 | 1,570,464 | 13.65 | 2 | 1,697,274 | 12.11 | 2 | 1,777,145 | 11.05 |
| Between— | | | | | | | | | |
| 400,000 and 500,000..... | — | — | — | — | — | — | — | — | — |
| 300,000 and 400,000..... | — | — | — | 1 | 344,833 | 2.46 | 1 | 365,844 | 2.28 |
| 200,000 and 300,000..... | 2 | 497,313 | 4.32 | 3 | 646,076 | 4.61 | 4 | 942,849 | 5.86 |
| 100,000 and 200,000..... | 4 | 577,356 | 5.02 | 4 | 572,756 | 4.09 | 4 | 576,156 | 3.58 |
| 50,000 and 100,000..... | 7 | 508,808 | 4.42 | 9 | 588,436 | 4.20 | 12 | 769,323 | 4.78 |
| 25,000 and 50,000..... | 19 | 605,805 | 5.26 | 24 | 802,380 | 5.73 | 27 | 929,624 | 5.78 |
| 15,000 and 25,000..... | 20 | 377,505 | 3.28 | 34 | 636,713 | 4.54 | 43 | 853,341 | 5.31 |
| 10,000 and 15,000..... | 24 | 296,195 | 2.57 | 29 | 347,410 | 2.48 | 44 | 527,802 | 3.28 |
| 5,000 and 10,000..... | 74 | 510,429 | 4.44 | 100 | 720,077 | 5.14 | 117 | 830,289 | 5.16 |
| 3,000 and 5,000..... | 91 | 348,709 | 3.03 | 119 | 457,492 | 3.27 | 130 | 497,818 | 3.10 |
| 1,000 and 3,000..... | 337 | 561,019 | 4.88 | 409 | 698,092 | 4.98 | 450 | 772,013 | 4.80 |
| Under 1,000..... | 1,060 | 398,813 | 3.47 | 1,049 | 429,683 | 3.07 | 1,039 | 443,922 | 2.76 |
| Totals..... | 1,640 | 6,252,416 | 54.34 | 1,783 | 7,941,222 | 56.68 | 1,873 | 9,286,126 | 57.75 |

¹ Newfoundland not included.

Of the 1,873 incorporated urban centres in Canada at the date of the latest Census (June 1, 1956) 834 had a population of 1,000 or over. These are listed alphabetically by province in Table 10 with their 1956 populations and comparative figures for 1951.

10.—Incorporated Cities, Towns and Villages having Populations of 1,000 or Over, by Province, Census Years 1951 and 1956

| Province and Incorporated Centre | 1951 | 1956 | Province and Incorporated Centre | 1951 | 1956 |
|----------------------------------|------------------|--------|----------------------------------|--------|--------|
| | No. | No. | | No. | No. |
| Newfoundland— | | | Prince Edward Island— | | |
| Bay Roberts..... | 1,222 | 1,306 | Charlottetown..... | 15,887 | 16,707 |
| Burgeo..... | 891 | 1,138 | Montague..... | 1,068 | 1,152 |
| Burin..... | 796 | 1,116 | Parkdale..... | 1 | 1,422 |
| Carbonear..... | 3,351 | 3,955 | Souris..... | 1,183 | 1,449 |
| Channel-Port aux Basques..... | 2,634 | 3,320 | Spring Park..... | 1 | 1,370 |
| Clarenceville..... | 1 | 1,195 | Summerside..... | 6,547 | 7,242 |
| Corner Brook..... | 2 | 23,225 | | | |
| Deer Lake..... | 2,655 | 3,481 | | | |
| Fogo..... | 1,078 | 1,184 | Nova Scotia— | | |
| Fortune..... | 867 | 1,194 | Amherst..... | 9,870 | 10,301 |
| Freshwater..... | 810 | 1,048 | Antigonish..... | 3,196 | 3,592 |
| Grand Bank..... | 2,148 | 2,430 | Berwick..... | 1,045 | 1,134 |
| Harbour Grace..... | 2,331 | 2,545 | Bridgetown..... | 1,038 | 1,041 |
| Lewisporte..... | 1,218 | 2,076 | Bridgewater..... | 4,010 | 4,445 |
| Marystown..... | 1 | 1,460 | Canso..... | 1,313 | 1,261 |
| Mount Pearl Park-Glendale..... | 1 | 1,979 | Dartmouth..... | 15,037 | 21,093 |
| Placentia..... | 614 ³ | 1,233 | Digby..... | 2,047 | 2,145 |
| St. Anthony..... | 1,380 | 1,761 | Dominion..... | 3,143 | 2,964 |
| St. John's..... | 52,873 | 57,078 | Glace Bay..... | 25,586 | 24,416 |
| St. Lawrence..... | 1,451 | 1,837 | Halifax..... | 85,589 | 93,301 |
| Stephenville..... | 1 | 3,762 | Hantsport..... | 1,131 | 1,298 |
| Wabana..... | 6,460 | 7,873 | Inverness..... | 2,360 | 2,026 |
| Wesleyville..... | 1,304 | 1,313 | Kentville..... | 4,240 | 4,937 |
| Windsor..... | 3,674 | 4,520 | Liverpool..... | 3,535 | 3,500 |

For footnotes, see end of table, p. 132.

**10.—Incorporated Cities, Towns and Villages having Populations of 1,000 or Over,
by Province, Census Years 1951 and 1956—continued**

| Province and Incorporated Centre | 1951 | 1956 | Province and Incorporated Centre | 1951 | 1956 |
|----------------------------------|--------------------|--------|----------------------------------|--------------------|--------|
| | No. | No. | | No. | No. |
| Nova Scotia—concluded | | | Quebec—continued | | |
| Lockeport..... | 1,225 | 1,207 | Beaconsfield..... | 1,888 | 5,496 |
| Louisburg..... | 1,120 | 1,314 | Beauceville..... | 1,149 | 1,459 |
| Lunenburg..... | 2,816 | 2,859 | Beauceville E..... | 1,573 | 1,740 |
| Mahone Bay..... | 1,019 | 1,109 | Beauharnois..... | 5,694 | 6,774 |
| Middleton..... | 1,506 | 1,769 | Beaufort..... | 5,390 | 6,735 |
| Mulgrave..... | 1,212 | 1,227 | Beaupré..... | 2,015 ^a | 2,381 |
| New Glasgow..... | 9,933 | 9,998 | Bedford..... | 2,073 | 2,272 |
| New Waterford..... | 10,423 | 10,381 | Beebe Plain..... | 1,352 | 1,363 |
| North Sydney..... | 7,354 | 8,125 | Belœil..... | 2,992 | 3,966 |
| Oxford..... | 1,466 | 1,545 | Bernierville..... | 1,959 | 2,431 |
| Parrsboro..... | 1,906 | 1,849 | Berthierville..... | 3,325 | 3,504 |
| Pictou..... | 4,259 | 4,564 | Bic..... | 1,086 | 1,142 |
| Port Hawkesbury..... | 1,034 | 1,078 | Black Lake..... | 2,800 | 3,685 |
| Shelburne..... | 2,040 | 2,337 | Bois des Filion..... | 787 | 1,648 |
| Springhill..... | 7,138 | 7,348 | Boucherville..... | 1,583 | 3,911 |
| Stellarton..... | 5,575 | 5,445 | Bourlamaque..... | 2,460 | 3,018 |
| Stewiacke..... | 1,018 | 1,024 | Bromptonville..... | 2,025 | 2,316 |
| Sydney..... | 31,317 | 32,162 | Brownsburg..... | 3,238 | 3,412 |
| Sydney Mines..... | 8,410 | 8,731 | Buckingham..... | 6,129 | 6,781 |
| Trenton..... | 3,089 | 3,240 | Cabano..... | 2,594 | 2,350 |
| Truro..... | 10,756 | 12,250 | Cadillac..... | 1,514 | 1,281 |
| Westville..... | 4,301 | 4,247 | Campbell's Bay..... | 975 | 1,029 |
| Windsor..... | 3,439 | 3,651 | Cap Chat..... | 1,642 | 1,954 |
| Wolfville..... | 2,313 | 2,497 | Cap de la Madeleine..... | 18,667 | 22,943 |
| Yarmouth..... | 8,106 | 8,095 | Causapscal..... | 2,609 | 2,957 |
| | | | Chambly..... | 2,160 | 2,817 |
| | | | Chambord..... | 1,070 | 1,091 |
| | | | Chandler..... | 2,326 | 3,338 |
| New Brunswick— | | | Charlemagne..... | 1,856 | 2,428 |
| Bathurst..... | 4,453 | 5,267 | Charlesbourg..... | 5,734 | 8,202 |
| Campbellton..... | 7,754 | 8,389 | Charny..... | 3,300 | 3,639 |
| Chatham..... | 5,223 | 6,332 | Châteauguay..... | 2,240 | 3,265 |
| Dalhousie..... | 4,939 | 5,468 | Châteauguay Heights..... | 627 | 1,146 |
| Dieppe..... | 3,402 | 3,876 | Chibougamau..... | 1 | 1,262 |
| Edmundston..... | 10,753 | 11,997 | Chicoutimi..... | 23,111 | 24,878 |
| Fredericton..... | 16,018 | 18,303 | Chicoutimi N..... | 3,966 | 6,446 |
| Grand Falls..... | 2,365 | 3,672 | Clermont..... | 2,027 | 2,628 |
| Hartland..... | 1,000 | 1,022 | Coaticook..... | 6,341 | 6,492 |
| Lancaster..... | 1 | 12,371 | Contrecoeur..... | 1,435 | 1,662 |
| Marysville..... | 2,152 | 2,538 | Cookshire..... | 1,209 | 1,315 |
| Milltown..... | 2,267 | 1,975 | Côte St-Luc..... | 1,083 | 5,914 |
| Moncton..... | 27,334 | 36,093 | Courville..... | 3,138 | 3,772 |
| Newcastle..... | 4,248 | 4,670 | Cowansville..... | 4,431 | 5,242 |
| St. Andrews..... | 1,458 | 1,534 | Crabtree..... | 983 | 1,103 |
| St. George..... | 1,263 | 1,322 | Danville..... | 2,092 | 2,296 |
| St. Leonard..... | 1,419 | 1,593 | Deschailons-sur-St. Laurent..... | 1,185 | 1,266 |
| St. Stephen..... | 3,769 | 3,491 | Deschambault..... | 954 | 1,002 |
| Sackville..... | 2,873 | 2,849 | Deschênes..... | 1,169 | 1,680 |
| Saint John..... | 50,779 | 52,491 | Disraeli..... | 2,145 | 2,473 |
| Shediac..... | 2,010 | 2,173 | Dolbeau..... | 4,307 | 5,079 |
| Shippegan..... | 1,181 | 1,362 | Donnacona..... | 3,663 | 4,147 |
| Sussex..... | 3,224 | 3,403 | Dorion..... | 2,413 | 3,089 |
| Woodstock..... | 3,996 | 4,308 | Dorval..... | 5,293 | 14,055 |
| | | | Drummondville..... | 14,341 | 26,284 |
| Quebec— | | | Drummondville W..... | 1,275 | 1,606 |
| Acton Vale..... | 3,367 | 3,547 | Duparquet..... | 1,485 | 1,144 |
| Alma..... | 7,975 | 10,822 | East Angus..... | 3,714 | 4,239 |
| Amos..... | 4,265 | 5,145 | East Broughton Station..... | 1 | 1,060 |
| Amqui..... | 2,599 | 3,247 | Farnham..... | 4,926 | 5,843 |
| Anjou..... | 1,501 ^a | 2,140 | Ferme-Neuve..... | 1,660 | 1,891 |
| Arthabaska..... | 2,321 | 2,399 | Forestville..... | 709 | 1,117 |
| Arvida..... | 11,078 | 12,919 | Fort Chambly..... | 1,636 | 1,885 |
| Asbestos..... | 8,190 | 8,969 | Fort Coulonge..... | 1,431 | 1,633 |
| Ayersville..... | 1 | 2,348 | Gaspé..... | 1,692 | 2,194 |
| Aylmer..... | 4,375 | 5,294 | Gatineau..... | 5,771 | 8,423 |
| Bagotville..... | 4,136 | 4,822 | Giffard..... | 8,097 | 9,964 |
| Baie Comeau..... | 3,972 | 4,332 | Granby..... | 21,989 | 27,095 |
| Baie de Shawinigan..... | 1,223 | 1,137 | Grande-Rivière..... | 932 | 1,024 |
| Baie d'Urée..... | 719 | 1,838 | Grand Mère..... | 11,089 | 14,023 |
| Baie St. Paul..... | 3,716 | 4,052 | Greenfield Park..... | 3,379 | 4,417 |
| Barraute..... | 500 | 1,081 | Grenville..... | 1,069 | 1,277 |

**10.—Incorporated Cities, Towns and Villages having Populations of 1,000 or Over,
by Province, Census Years 1951 and 1956—continued**

| Province and Incorporated Centre | 1951 | 1956 | Province and Incorporated Centre | 1951 | 1956 |
|----------------------------------|--------------------|-----------|-----------------------------------|--------------------|---------|
| | No. | No. | | No. | No. |
| Quebec—continued | | | Quebec—continued | | |
| Hampstead..... | 3,260 | 4,355 | Mount Royal..... | 11,352 | 16,990 |
| Haupterville..... | 283 | 1,762 | Murdochville..... | 1 | 1,694 |
| Hébertville Station..... | 1,038 | 1,214 | Napierville..... | 1,356 | 1,510 |
| Hudson..... | 1,283 | 1,549 | Napierville..... | 1,430 | 2,894 |
| Hudson Heights..... | 925 | 1,289 | Naudville..... | 4,084 | 3,771 |
| Hull..... | 43,483 | 49,243 | Nicolet..... | 9,672 | 10,323 |
| Huntingdon..... | 2,806 | 2,995 | Noranda..... | 1,678 | 1,918 |
| Iberville..... | 5,185 | 6,270 | Normandin..... | 1,285 | 1,542 |
| Ile-Perrot..... | 2,008 ^a | 2,600 | Notre-Dame-d'Hébertville..... | 2,516 | 3,464 |
| Isle Maligne..... | 482 | 1,761 | Notre-Dame-de-Portneuf..... | 1,144 | 1,251 |
| Jacques-Cartier..... | 22,450 | 33,132 | Notre-Dame-du-Lac..... | 1,364 | 1,512 |
| Joliette..... | 16,064 | 16,940 | Orms town..... | 1,233 | 1,347 |
| Jonquière..... | 21,618 | 25,550 | Outremont..... | 30,057 | 29,990 |
| Kénogami..... | 9,895 | 11,309 | Papineauville..... | 1,024 | 1,141 |
| Knowlton..... | 1,094 | 1,328 | Parent..... | 1,255 | 1,431 |
| Labelle..... | 1,003 | 1,150 | Pierreville..... | 1,448 | 1,589 |
| L'Abord-à-Plouffe..... | 4,604 | 8,099 | Pincourt..... | 521 | 1,437 |
| Lac-au-Saumon..... | 1,622 | 1,681 | Plessisville..... | 5,094 | 5,829 |
| Lachine..... | 27,773 | 34,494 | Pointe-à-Gatineau..... | 3,874 | 6,175 |
| Lachute..... | 6,179 | 6,911 | Pointe-au-Pic..... | 1,105 | 1,220 |
| Lacolle..... | 1,055 | 1,141 | Pointe-aux-Trembles..... | 8,241 | 11,981 |
| La Guadeloupe..... | 1,321 | 1,487 | Pointe Claire..... | 8,753 | 15,208 |
| La Malbaie..... | 2,466 | 2,817 | Pont Rouge..... | 2,413 | 2,631 |
| La Pérade..... | 1,111 | 1,282 | Pont Viau..... | 5,129 | 8,218 |
| La Petite-Rivière..... | 740 ^a | 1,353 | Port Alfred..... | 3,937 | 7,968 |
| La Prairie..... | 4,058 | 5,372 | Price..... | 2,810 | 3,140 |
| La Providence..... | 2,693 | 3,826 | Princeville..... | 1,967 | 2,841 |
| Lasalle..... | 11,633 | 18,973 | Quebec..... | 164,016 | 170,703 |
| La Sarre..... | 2,744 | 3,155 | Quebec W..... | 7,295 | 7,945 |
| L'Assomption..... | 2,688 | 3,683 | Rawdon..... | 1,912 | 2,049 |
| La Tuque..... | 9,538 | 11,096 | Richelieu..... | 1,129 | 1,398 |
| Laurentides..... | 1,465 | 1,513 | Richmond..... | 3,471 | 3,849 |
| Lauzon..... | 9,643 | 10,255 | Rigaud..... | 1,579 | 1,784 |
| Laval-des-Rapides..... | 4,998 | 11,248 | Rimouski..... | 11,565 | 14,630 |
| Laval W..... | 1,935 | 3,818 | Rimouski E..... | 889 | 1,209 |
| Le Moyne..... | 4,078 | 5,662 | Rivière-des-Prairies..... | 4,072 | 6,806 |
| Legnoxville..... | 2,895 | 3,149 | Rivière-du-Loup..... | 9,425 | 9,964 |
| L'Épiphanie..... | 2,462 | 2,671 | Rivière-du-Moulin..... | 2,685 | 4,138 |
| Léry..... | 1,194 | 1,573 | Robertsonville..... | 665 | 1,030 |
| Lévis..... | 13,162 | 13,644 | Roberval..... | 4,897 | 6,648 |
| Liniers..... | 949 | 1,149 | Rock Island..... | 1,646 | 1,608 |
| L'Isletville..... | 830 | 1,051 | Rouyn..... | 14,633 | 17,076 |
| L'Isle-Verte..... | 1 | 1,456 | Roxboro..... | 459 | 1,910 |
| Longueuil..... | 11,103 | 14,332 | Roxton Falls..... | 945 | 1,023 |
| Loretteville..... | 4,382 | 4,957 | St. Adele..... | 961 | 1,309 |
| Louiseville..... | 4,088 | 4,392 | St. Agapitville..... | 922 | 1,079 |
| Luceville..... | 1,059 | 1,265 | St. Agathe-des-Monts..... | 5,169 | 5,173 |
| Lyster..... | 961 | 1,010 | St. Ambroise..... | 1,032 | 1,305 |
| Macamic..... | 1,123 | 1,388 | St. Anne-de-Beaupré..... | 1,827 | 1,865 |
| Mackayville..... | 6,494 | 9,958 | St. Anne-de-Bellevue..... | 3,342 | 3,647 |
| Magog..... | 12,423 | 12,720 | St. Anselme..... | 991 | 1,086 |
| Malarie..... | 5,983 | 6,818 | St. Antoine-des-Laurentides..... | 1 | 2,092 |
| Maniwaki..... | 3,835 | 5,399 | St. Basile S..... | 1,347 | 1,635 |
| Maple Grove..... | 847 | 1,115 | St. Casimir..... | 1,334 | 1,447 |
| Marieville..... | 3,117 | 3,478 | St. Césaire..... | 1,658 | 1,739 |
| Masson..... | 1,475 | 1,656 | St. Coeur-de-Marie..... | 1,061 | 1,282 |
| Matane..... | 6,345 | 8,069 | St. Croix..... | 1,080 | 1,241 |
| McMasterville..... | 1,509 | 1,738 | St. Cyrille..... | 1,189 | 1,198 |
| Mégantic..... | 6,164 | 6,864 | St. Dorothée..... | 726 | 1,158 |
| Melochville..... | 1,300 | 1,422 | St. Elzéar..... | 1,506 ^a | 2,589 |
| Mistassini..... | 2,298 | 2,912 | St. Emile..... | 1,415 ^a | 1,645 |
| Montbello..... | 1,297 | 1,287 | St. Émilien..... | 1,651 | 2,014 |
| Mont Joli..... | 4,938 | 6,179 | St. Eustache..... | 2,615 | 3,740 |
| Mont Laurier..... | 4,701 | 5,486 | St. Eustache-sur-le-Lac..... | 3,211 | 5,830 |
| Montmagny..... | 5,844 | 6,405 | St. Félix..... | 2,656 | 4,152 |
| Montmorency..... | 5,817 | 6,077 | St. Felix-de-Valois..... | 1,201 | 1,323 |
| Montreal..... | 1,021,520 | 1,109,439 | St. Foy..... | 5,236 | 14,615 |
| Montreal E..... | 4,513 | 4,607 | St. Fulgence..... | 902 | 1,054 |
| Montreal N..... | 14,081 | 25,407 | St. Gabriel-de-Brandon..... | 2,661 | 3,265 |
| Montreal S..... | 4,214 | 5,319 | St. Geneviève-de-Pierrefonds..... | 1,322 | 2,041 |
| Montreal W..... | 3,721 | 4,370 | St. Georges (Beauce Co.)..... | 2,657 | 3,197 |

For footnotes, see end of table, p. 132.

**10.—Incorporated Cities, Towns and Villages having Populations of 1,000 or Over,
by Province, Census Years 1951 and 1956—continued**

| Province and Incorporated Centre | 1951 | 1956 | Province and Incorporated Centre | 1951 | 1956 |
|-----------------------------------|--------------------|--------|----------------------------------|--------------------|--------|
| | No. | No. | | No. | No. |
| Quebec—continued | | | Quebec—concluded | | |
| St. Georges (Champlain Co.)... | 1,143 | 1,454 | Villeneuve ^s | 1,096 | 1,417 |
| St. Georges W. (Beauce Co.)... | 2,691 | 3,643 | Warwick..... | 2,094 | 2,248 |
| St. Hilaire..... | 1,436 | 2,000 | Waterloo..... | 4,054 | 4,266 |
| St. Hyacinthe..... | 20,236 | 20,439 | Waterville..... | 1,205 | 1,373 |
| St. Jacques..... | 1,729 | 1,979 | Weedon Centre..... | 1,066 | 1,287 |
| St. Jean..... | 19,305 | 24,367 | Westmount..... | 25,222 | 24,800 |
| St. Jean-de-Boischatel..... | 1,297 | 1,461 | Windsor..... | 4,714 | 5,886 |
| St. Jean-Eudes..... | 1 | 2,560 | | | |
| St. Jérôme (Lac St. Jean Co.)... | 1,480 | 1,505 | Ontario— | | |
| St. Jérôme (Terrebonne Co.)... | 17,685 | 20,645 | Acton..... | 2,880 | 3,578 |
| St. Joseph (Beauce Co.)..... | 2,417 | 2,484 | Ajax..... | 4,168 ^a | 5,683 |
| St. Joseph (St. Hyacinthe Co.)... | 2,122 | 2,708 | Alexandria..... | 2,204 | 2,487 |
| St. Joseph-de-la-Rivière-Bleue... | 1,334 | 1,481 | Alfred..... | 1 | 1,257 |
| St. Joseph-de-Sorel..... | 3,349 | 3,571 | Alliston..... | 1,987 | 2,426 |
| St. Jovite..... | 1,453 | 1,613 | Almonte..... | 2,672 | 2,960 |
| St. Lambert..... | 8,615 | 12,224 | Amherstburg..... | 3,638 | 4,099 |
| St. Laurent..... | 20,426 | 38,291 | Arnprior..... | 4,381 | 5,137 |
| St. Marc-des-Carrières..... | 2,351 | 2,457 | Arthur..... | 1,088 | 1,124 |
| St. Marie..... | 2,431 | 3,094 | Aurora..... | 3,358 | 3,957 |
| St. Martin..... | 1 | 6,440 | Aylmer..... | 3,483 | 4,201 |
| St. Michel (Montreal Island)... | 10,529 | 24,706 | Bancroft..... | 1,334 | 1,669 |
| St. Noël..... | 830 | 1,027 | Barrie..... | 12,514 | 16,851 |
| St. Pascome..... | 1,197 | 1,283 | Barry's Bay..... | 1,218 | 1,366 |
| St. Pascal..... | 1,736 | 1,962 | Beamsville..... | 1,712 | 2,198 |
| St. Pie..... | 1,182 | 1,228 | Beaverton..... | 1,048 | 1,099 |
| St. Pierre (Montreal Island)... | 4,976 | 5,276 | Belle River..... | 1,431 | 1,814 |
| St. Raphaël..... | 1,955 | 1,059 | Belleville..... | 19,519 | 20,605 |
| St. Raymond..... | 3,139 | 3,502 | Blenheim..... | 2,459 | 2,844 |
| St. Remi..... | 1,845 | 2,303 | Blind River..... | 2,512 | 3,633 |
| St. Rosalie..... | 1,638 | 1,142 | Bobcaygeon..... | 1,207 | 1,242 |
| St. Rose..... | 3,660 | 5,378 | Bolton..... | 820 | 1,093 |
| St. Sauveur-des-Monts..... | 1,066 | 1,316 | Bowmanville..... | 5,430 | 6,544 |
| St. Siméon..... | 1,103 | 1,114 | Bracebridge..... | 2,684 | 2,849 |
| St. Thècle..... | 1,468 | 1,499 | Bradford..... | 1,483 | 2,010 |
| St. Thérèse..... | 7,038 | 8,266 | Brampton..... | 8,389 | 12,587 |
| St. Tito..... | 2,856 | 3,183 | Brantford..... | 36,727 | 51,869 |
| St. Vincent-de-Paul..... | 1 | 6,784 | Bridgeport..... | 1,137 | 1,402 |
| Sayabec..... | 2,220 | 2,281 | Brighton..... | 1,967 | 2,182 |
| Schefferville..... | 1 | 1,632 | Brockville..... | 12,301 | 13,885 |
| Scotstown..... | 1,350 | 1,347 | Bronte..... | 1 | 2,024 |
| Senneterre..... | 1,686 | 2,197 | Burlington..... | 6,017 | 9,127 |
| Sept-Iles..... | 1,866 | 5,592 | Burlington Beach..... | 2,827 | 3,314 |
| Shawinigan East..... | 1 | 2,451 | Caledonia..... | 1,681 | 2,078 |
| Shawinigan Falls..... | 26,903 | 28,597 | Campbellford..... | 3,235 | 3,425 |
| Shawinigan South..... | 6,637 | 10,947 | Capreol..... | 2,002 | 2,394 |
| Shawville..... | 1,159 | 1,281 | Cardinal..... | 1,782 | 1,994 |
| Sherbrooke..... | 50,543 | 58,668 | Carleton Place..... | 4,725 | 4,790 |
| Sillery..... | 10,376 | 13,154 | Casselman..... | 1,158 | 1,241 |
| Sorel..... | 14,961 | 16,476 | Chatham..... | 21,218 | 22,262 |
| Stanstead Plain..... | 995 | 1,134 | Chelmsford..... | 1,210 | 2,142 |
| Sutton..... | 1,389 | 1,407 | Chesley..... | 1,672 | 1,629 |
| Tadoussac..... | 1,064 | 1,066 | Chesterville..... | 1,094 | 1,169 |
| Témiscaming..... | 2,787 | 2,694 | Chippewa..... | 1,762 | 2,039 |
| Templeton..... | 1,717 | 2,475 | Clinton..... | 2,547 | 2,896 |
| Terrebonne..... | 3,200 | 4,097 | Cobalt..... | 2,230 | 2,367 |
| Thetford Mines..... | 15,095 | 19,511 | Cobourg..... | 7,470 | 9,399 |
| Three Rivers..... | 46,074 | 50,483 | Cochrane..... | 3,401 | 3,695 |
| Thurso..... | 1,973 | 2,324 | Colborne..... | 1,108 | 1,240 |
| Tracy..... | 3,847 ⁷ | 6,542 | Collingwood..... | 7,413 | 7,978 |
| Tring-Jonction..... | 751 | 1,083 | Coniston..... | 2,292 | 2,478 |
| Trois-Pistoles..... | 3,537 | 4,039 | Copper Cliff..... | 3,974 | 3,801 |
| Val-David..... | 940 | 1,016 | Cornwall..... | 16,899 | 18,158 |
| Val-d'Or..... | 8,685 | 9,876 | Crystal Beach..... | 1,204 | 1,860 |
| Valée-Jonction..... | 1,279 | 1,340 | Delhi..... | 2,517 | 3,002 |
| Valleyfield (Salaberry-de)..... | 22,414 | 23,584 | Deseronto..... | 1,522 | 1,729 |
| Val-St. Michel..... | 689 | 1,140 | Dresden..... | 2,052 | 2,260 |
| Varennes..... | 1,104 | 2,047 | Dryden..... | 2,627 | 4,428 |
| Verehères..... | 1,201 | 1,412 | Dundas..... | 6,846 | 9,507 |
| Verdun..... | 77,391 | 78,262 | Dunnville..... | 4,478 | 4,776 |
| Victoriaville..... | 13,124 | 16,031 | Durham..... | 1,839 | 2,067 |
| Ville-Marie..... | 1,316 | 1,409 | Eastview..... | 13,799 | 19,283 |

For footnotes, see end of table, p. 132.

**10.—Incorporated Cities, Towns and Villages having Populations of 1,000 or Over,
by Province, Census Years 1951 and 1956—continued**

| Province and Incorporated Centre | 1951 | 1956 | Province and Incorporated Centre | 1951 | 1956 |
|----------------------------------|---------|---------|----------------------------------|---------|---------|
| | No. | No. | | No. | No. |
| Ontario—continued | | | Ontario—continued | | |
| Eganville..... | 1,326 | 1,598 | Mount Forest..... | 2,291 | 2,438 |
| Elmira..... | 2,589 | 2,916 | Napanee..... | 3,897 | 4,273 |
| Elora..... | 1,348 | 1,457 | Newcastle..... | 958 | 1,098 |
| Englehart..... | 1,585 | 1,705 | New Hamburg..... | 1,738 | 1,939 |
| Essex..... | 2,741 | 3,348 | New Liskeard..... | 4,215 | 4,619 |
| Exeter..... | 2,547 | 2,655 | Newmarket..... | 5,356 | 7,368 |
| Fenelon Falls..... | 1,304 | 1,137 | New Toronto..... | 11,194 | 11,560 |
| Fergus..... | 3,387 | 3,677 | Niagara..... | 2,108 | 2,740 |
| Fonthill..... | 1,412 | 1,872 | Niagara Falls..... | 22,874 | 23,563 |
| Forest..... | 1,790 | 2,035 | North Bay..... | 17,944 | 21,020 |
| Forest Hill..... | 15,305 | 19,480 | Norwich..... | 1,439 | 1,611 |
| Fort Erie..... | 7,572 | 8,632 | Norwood..... | 925 | 1,017 |
| Fort Frances..... | 8,038 | 9,005 | Oakville..... | 6,910 | 9,983 |
| Fort William..... | 34,947 | 39,464 | Orangeville..... | 3,249 | 3,887 |
| Frankford..... | 1,393 | 1,491 | Orillia..... | 12,110 | 13,887 |
| Galt..... | 19,207 | 23,738 | Oshawa..... | 41,545 | 50,412 |
| Gananoque..... | 4,572 | 4,981 | Ottawa..... | 202,045 | 222,129 |
| Georgetown..... | 3,452 | 5,942 | Owen Sound..... | 16,423 | 16,976 |
| Geraldton..... | 3,227 | 3,263 | Palmerston..... | 1,573 | 1,550 |
| Glencoe..... | 979 | 1,044 | Paris..... | 5,249 | 5,504 |
| Goderich..... | 4,934 | 5,886 | Parkhill..... | 991 | 1,043 |
| Gravenhurst..... | 3,005 | 3,014 | Parry Sound..... | 5,183 | 5,378 |
| Grimsby..... | 2,773 | 3,805 | Pembroke..... | 12,704 | 15,434 |
| Guelph..... | 27,386 | 33,860 | Penetanguishene..... | 4,949 | 5,420 |
| Hagersville..... | 1,746 | 1,964 | Perth..... | 5,034 | 5,145 |
| Haileybury..... | 2,346 | 2,654 | Peterborough..... | 38,272 | 42,098 |
| Hamilton..... | 208,321 | 239,625 | Petrolia..... | 3,105 | 3,426 |
| Hanover..... | 3,533 | 3,943 | Pickering..... | 4,287 | 4,998 |
| Harriston..... | 1,494 | 1,592 | Pictou..... | 1,838 | 2,558 |
| Harrow..... | 1,519 | 1,851 | Point Edward..... | 31,161 | 38,136 |
| Havelock..... | 1,132 | 1,205 | Port Arthur..... | 8,275 | 14,028 |
| Hawkesbury..... | 7,194 | 7,929 | Port Colborne..... | 3,643 | 6,350 |
| Hearst..... | 1,723 | 2,214 | Port Credit..... | 2,616 | 3,087 |
| Hespeler..... | 3,862 | 3,876 | Port Dalhousie..... | 2,440 | 2,790 |
| Huntsville..... | 3,286 | 3,051 | Port Dover..... | 1,558 | 1,597 |
| Ingersoll..... | 6,524 | 6,811 | Port Hope..... | 6,548 | 7,522 |
| Iroquois..... | 1,086 | 1,078 | Port Perry..... | 1,721 | 2,121 |
| Iroquois Falls..... | 1,342 | 1,478 | Port Stanley..... | 1,491 | 1,480 |
| Kapuskasing..... | 4,687 | 5,463 | Prestcott..... | 3,518 | 4,920 |
| Keewatin..... | 1,634 | 1,949 | Rainy River..... | 7,619 | 9,387 |
| Kemptville..... | 1,488 | 1,730 | Renfrew..... | 1,348 | 1,354 |
| Kenora..... | 8,695 | 10,278 | Richmond Hill..... | 7,360 | 8,634 |
| Kincardine..... | 2,672 | 2,667 | Ridgetown..... | 2,164 | 6,677 |
| Kingston..... | 33,459 | 48,618 | Riverside..... | 2,365 | 2,483 |
| Kingsville..... | 2,631 | 2,884 | Rockcliffe Park..... | 9,214 | 13,335 |
| Kitchener..... | 44,867 | 59,562 | Rockland..... | 1,595 | 2,097 |
| Lakefield..... | 1,710 | 1,938 | Rodney..... | 2,348 | 2,757 |
| La Salle..... | 1,854 | 2,703 | St. Catharines..... | 885 | 1,026 |
| Leamington..... | 6,950 | 7,856 | St. Mary's..... | 37,984 | 39,708 |
| Leaside..... | 16,233 | 16,538 | St. Thomas..... | 3,995 | 4,185 |
| Levack..... | 1,833 | 2,929 | Samia..... | 18,173 | 19,129 |
| Lindsay..... | 9,603 | 10,110 | Sault Ste. Marie..... | 34,697 | 43,447 |
| Listowel..... | 3,469 | 3,644 | Seaforth..... | 32,452 | 37,329 |
| Little Current..... | 1,397 | 1,514 | Shelburne..... | 2,118 | 2,128 |
| Lively..... | 1 | 2,840 | Simcoe..... | 1,184 | 1,245 |
| London..... | 95,343 | 101,693 | Sioux Lookout..... | 7,269 | 8,078 |
| Long Branch..... | 8,727 | 10,249 | Smith's Falls..... | 2,364 | 2,504 |
| L'Orignal..... | 967 | 1,067 | Smooth Rock Falls..... | 8,441 | 8,967 |
| Madoc..... | 1,240 | 1,325 | Southampton..... | 1,102 | 1,104 |
| Markham..... | 1,606 | 2,873 | Stayner..... | 1,700 | 1,640 |
| Marmora..... | 1,117 | 1,423 | Stirling..... | 1,280 | 1,429 |
| Massey..... | 937 | 1,068 | Stoney Creek..... | 1,100 | 1,191 |
| Mattawa..... | 3,097 | 3,208 | Stouffville..... | 1,922 | 4,506 |
| Meaford..... | 3,178 | 3,643 | Stratford..... | 1,695 | 2,307 |
| Merrittton..... | 4,714 | 5,404 | Strathroy..... | 18,785 | 19,972 |
| Midland..... | 7,206 | 8,250 | Streetsville..... | 3,708 | 4,240 |
| Milton..... | 2,451 | 4,294 | Sturgeon Falls..... | 1,139 | 2,648 |
| Milverton..... | 1,055 | 1,070 | Sudbury..... | 4,962 | 5,874 |
| Mimico..... | 11,342 | 13,687 | Sutton..... | 42,410 | 46,482 |
| Mitchell..... | 1,979 | 2,146 | | 1,168 | 1,310 |
| Morrisburg..... | 1,858 | 2,131 | | | |

For footnotes, see end of table, p. 132.

**10.—Incorporated Cities, Towns and Villages having Populations of 1,000 or Over,
by Province, Census Years 1951 and 1956—concluded**

| Province and Incorporated Centre | 1951 | 1956 | Province and Incorporated Centre | 1951 | 1956 |
|----------------------------------|--------|--------|-----------------------------------|---------|---------|
| | No. | No. | | No. | No. |
| Alberta—concluded | | | British Columbia—concluded | | |
| Fort Saskatchewan..... | 1,076 | 2,582 | Cumberland..... | 971 | 1,039 |
| Grande Prairie..... | 2,664 | 6,302 | Dawson Creek..... | 3,589 | 7,531 |
| Hanna..... | 2,027 | 2,327 | Duncan..... | 2,784 | 3,247 |
| High Prairie..... | 1,141 | 1,743 | Fernie..... | 2,551 | 2,808 |
| High River..... | 1,888 | 2,102 | Fort St. John..... | 884 | 1,908 |
| Innisfail..... | 1,417 | 1,883 | Grand Forks..... | 1,646 | 1,995 |
| Jasper Place..... | 9,139 | 15,957 | Hope..... | 1,668 | 2,226 |
| Lacombe..... | 2,277 | 2,747 | Kamloops..... | 8,099 | 9,096 |
| Leduc..... | 1,842 | 2,008 | Kelowna..... | 8,517 | 9,181 |
| Lethbridge..... | 22,947 | 29,462 | Kimberley..... | 5,933 | 5,774 |
| Magrath..... | 1,320 | 1,382 | Kinnaird..... | 947 | 1,305 |
| McLennan..... | 1,074 | 1,092 | Ladysmith..... | 2,094 | 2,107 |
| McMurray..... | 926 | 1,110 | Lake Cowichan..... | 1,628 | 1,949 |
| Medicine Hat..... | 16,364 | 20,826 | Langley..... | 1 | 2,131 |
| Nanton..... | 934 | 1,047 | Lillooet..... | 469 | 1,083 |
| Olds..... | 1,617 | 1,980 | Merritt..... | 1,251 | 1,790 |
| Peace River..... | 1,672 | 2,034 | Mission City..... | 2,668 | 3,010 |
| Pincher Creek..... | 1,456 | 1,729 | Nanaimo..... | 7,196 | 12,705 |
| Ponoka..... | 2,574 | 3,387 | Nelson..... | 6,772 | 7,226 |
| Raymond..... | 2,279 | 2,399 | New Westminster..... | 28,639 | 31,665 |
| Redcliff..... | 1,538 | 2,001 | North Kamloops..... | 1,979 | 4,398 |
| Red Deer..... | 7,575 | 12,338 | North Vancouver..... | 15,687 | 19,951 |
| Redwater..... | 1,306 | 1,065 | Oliver..... | 1,000 | 1,147 |
| Rocky Mountain House..... | 1,147 | 1,285 | Parksville..... | 882 | 1,112 |
| St. Albert..... | 1,129 | 1,320 | Penticton..... | 10,548 | 11,894 |
| St. Paul..... | 1,407 | 2,229 | Port Alberni..... | 7,845 | 10,373 |
| Stettler..... | 2,442 | 3,359 | Port Coquitlam..... | 3,232 | 4,632 |
| Stony Plain..... | 878 | 1,098 | Port Moody..... | 2,246 | 2,713 |
| Sylvan Lake..... | 985 | 1,114 | Prince George..... | 4,703 | 10,563 |
| Taber..... | 3,042 | 3,688 | Prince Rupert..... | 8,546 | 10,498 |
| Three Hills..... | 1,026 | 1,095 | Princeton..... | 1 | 2,245 |
| Vegreville..... | 2,223 | 2,574 | Quesnel..... | 1,587 | 4,384 |
| Vermilion..... | 1,982 | 2,196 | Revelstoke..... | 2,917 | 3,469 |
| Vulcan..... | 1,040 | 1,204 | Roseland..... | 4,604 | 4,344 |
| Wainwright..... | 1,996 | 2,653 | Salmon Arm..... | 1,201 | 1,344 |
| Westlock..... | 1,111 | 1,136 | Sidney..... | 1 | 1,371 |
| Wetaskiwin..... | 3,824 | 4,476 | Smithers..... | 1,204 | 1,962 |
| British Columbia— | | | Squamish..... | 589 | 1,292 |
| Alberni..... | 3,323 | 3,947 | Terrace..... | 961 | 1,473 |
| Armstrong..... | 1,126 | 1,197 | Trail..... | 11,430 | 11,395 |
| Burns Lake..... | 801 | 1,016 | Vancouver..... | 344,833 | 365,844 |
| Campbell River..... | 1,986 | 3,069 | Vanderhoof..... | 644 | 1,085 |
| Castlegar..... | 1,329 | 1,705 | Vernon..... | 7,822 | 8,998 |
| Chilliwack..... | 5,663 | 7,297 | Victoria..... | 51,331 | 54,584 |
| Comox..... | 714 | 1,151 | Warfield..... | 1 | 2,051 |
| Courtenay..... | 2,553 | 3,025 | William's Lake..... | 913 | 1,790 |
| Cranbrook..... | 3,621 | 4,562 | Yukon— | | |
| Creston..... | 1,626 | 1,844 | Whitehorse..... | 2,594 | 2,570 |

¹ Not incorporated in 1951.² Towns of Corner Brook E., Corner Brook W. and Curling amalgamated to form part of Corner Brook city Jan. 1, 1956.³ Rural District in 1951.⁴ Rural municipality of St. Leonard-de-Port-Maurice in 1951.⁵ Rural municipality in 1951.⁶ Previous to 1953 called Lac-St. Louis.⁷ Rural municipality of St. Joseph in 1951.⁸ Previous to June 16, 1951 called Beauport E.⁹ Improvement District in 1951.

Section 9.—Sex and Age Distribution

Sex.—The sex distribution of the Canadian people has been characterized since early colonial times by a preponderance of males although this condition has been greatly modified in more recent years. In 1666 during the early years of settlement by French immigrants 63.3 p.c. of the population were males. In 1784 when British immigration to Canada was commencing there were 54,064 males and 50,759 females and by the middle of the 19th century there were 449,967 males to 440,294 females in Lower Canada and 499,067 males to 452,937 females in the more newly settled Upper Canada.

Since Confederation the newer sections of Canada—the west and the northwest—have shown the greatest excess of males. From 1871 to 1941, for Canada as a whole, the proportion of males never dropped below 51 p.c. of the total population whereas for Western Canada it varied between 53 p.c. and 59 p.c. By 1951, however, the proportion of males to the total population had dropped to 50.6 p.c. for Canada as a whole and in 1956 was 50.7 p.c.

11.—Sex Distribution of the Population by Province, Decennial Census Years 1931-51 and 1956

NOTE.—Figures for the census years 1871-1921 are given in the 1948-49 Year Book, p. 150.

| Province or Territory | 1931 | | 1941 | | 1951 | | 1956 | |
|-----------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | Male | Female | Male | Female | Male | Female | Male | Female |
| | No. | No. | No. | No. | No. | No. | No. | No. |
| Newfoundland.... | ... | ... | ... | ... | 185,143 | 176,273 | 213,905 | 201,169 |
| P. E. Island..... | 45,392 | 42,646 | 49,228 | 45,819 | 50,218 | 48,211 | 50,510 | 48,775 |
| Nova Scotia..... | 263,104 | 249,742 | 296,044 | 281,918 | 324,955 | 317,629 | 353,182 | 341,535 |
| New Brunswick... | 208,620 | 199,599 | 234,097 | 223,304 | 259,211 | 256,486 | 279,590 | 275,026 |
| Quebec..... | 1,447,326 | 1,427,336 | 1,672,982 | 1,658,900 | 2,022,127 | 2,033,554 | 2,317,677 | 2,310,701 |
| Ontario..... | 1,748,844 | 1,682,839 | 1,921,201 | 1,866,454 | 2,314,170 | 2,283,372 | 2,721,519 | 2,683,414 |
| Manitoba..... | 368,065 | 332,074 | 378,079 | 351,665 | 394,818 | 381,723 | 432,478 | 417,562 |
| Saskatchewan.... | 499,935 | 421,850 | 477,563 | 418,429 | 434,568 | 397,160 | 458,428 | 422,237 |
| Alberta..... | 400,199 | 331,406 | 426,458 | 369,711 | 492,192 | 447,309 | 585,921 | 537,195 |
| British Columbia. | 385,219 | 309,044 | 435,031 | 382,830 | 596,961 | 568,249 | 720,516 | 677,948 |
| Yukon..... | 2,825 | 1,405 | 3,153 | 1,761 | 5,457 | 3,639 | 6,924 | 5,266 |
| N.W.T..... | 5,012 | 4,304 | 6,700 | 5,328 | 9,053 | 6,951 | 11,229 | 8,084 |
| Canada..... | 5,374,541 | 5,002,245 | 5,900,536 | 5,606,119 | 7,088,873 | 6,920,556 | 8,151,879 | 7,928,912 |

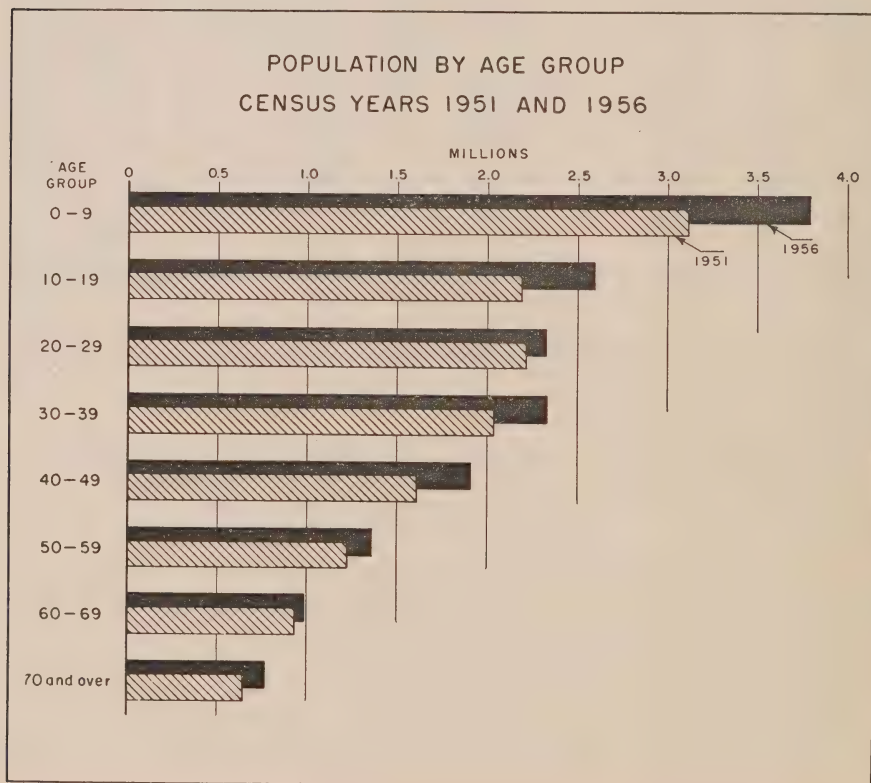
Age.—The age distribution of a population is fundamental to most, if not all, other analyses, for the age factor influences employment, marriage, birth rates and death rates, education, immigration, criminology, and a multitude of events and activities that are of great importance in the national life.

Recent trends in vital rates and immigration have considerably changed the age composition of the population of Canada. A high birth rate together with a low death rate among children has added, between 1951 and 1956, nearly 1,000,000 to the population under 15 years of age and raised the proportion of this group to the total population from 30.3 p.c. to 32.5 p.c. On the other hand, the relative proportion of the working-age groups—persons from 15 to 64 years of age—was 2 p.c. lower at 59.8 p.c. in 1956 than in 1951 when 61.9 p.c. were in this age group. Without the influx of immigrants during the 1951-56 period, the proportion of this productive group would have been much lower since a large part of it consists of the survivors of those born in the 1930's when birth rates were at their lowest. The proportion of persons 65 years of age or over was slightly less than 8 p.c. at both census dates.

Table 12 shows the population of Canada classified by five-year age groups and sex for the census years 1941, 1951 and 1956. The provincial distribution by specified age groups as recorded in the 1956 Census is shown in Table 13.

12.—Male and Female Populations by Age Group, Census Years 1941, 1951 and 1956

| Age Group | 1941 | | 1951 | | 1956 | |
|-----------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | Male | Female | Male | Female | Male | Female |
| | No. | No. | No. | No. | No. | No. |
| 0 - 4 years..... | 533,903 | 517,951 | 879,063 | 843,046 | 1,011,835 | 971,728 |
| 5 - 9 | 529,092 | 516,728 | 713,873 | 683,952 | 919,952 | 887,101 |
| 10 - 14 | 556,304 | 544,573 | 575,122 | 555,661 | 732,032 | 702,562 |
| 15 - 19 | 565,212 | 554,823 | 532,180 | 525,792 | 586,635 | 575,666 |
| 20 - 24 | 517,956 | 514,470 | 537,535 | 551,106 | 567,179 | 561,931 |
| 25 - 29 | 488,340 | 478,650 | 552,812 | 578,403 | 605,836 | 592,301 |
| 30 - 34 | 431,591 | 412,255 | 512,557 | 530,177 | 602,635 | 613,750 |
| 35 - 39 | 396,453 | 363,101 | 503,571 | 495,562 | 555,763 | 558,622 |
| 40 - 44 | 348,616 | 327,929 | 445,800 | 422,767 | 522,615 | 502,784 |
| 45 - 49 | 332,503 | 302,643 | 387,708 | 356,971 | 455,827 | 422,988 |
| 50 - 54 | 315,866 | 275,838 | 340,461 | 322,195 | 381,835 | 351,215 |
| 55 - 59 | 275,234 | 231,658 | 292,564 | 278,126 | 321,973 | 307,271 |
| 60 - 64 | 218,557 | 188,594 | 264,324 | 241,828 | 265,652 | 259,265 |
| 65 - 69 | 162,517 | 145,207 | 228,076 | 205,421 | 237,551 | 226,562 |
| 70 - 74 | 111,152 | 105,949 | 160,398 | 154,674 | 187,490 | 183,218 |
| 75 - 79 | 67,200 | 68,495 | 94,130 | 94,261 | 113,550 | 113,948 |
| 80 - 84 | 34,083 | 37,431 | 45,963 | 50,828 | 55,636 | 61,460 |
| 85 - 89 | 12,621 | 15,015 | 17,539 | 22,060 | 21,688 | 26,670 |
| 90 years or over..... | 3,336 | 4,809 | 5,197 | 7,726 | 6,295 | 9,870 |
| Totals..... | 5,900,536 | 5,606,119 | 7,088,873 | 6,920,556 | 8,151,879 | 7,928,912 |



13.—Age Distribution of the Population by Province, Census 1956

| Province or Territory | 0-4 Years | 5-9 Years | 10-14 Years | 15-19 Years | 20-24 Years | 25-34 Years |
|----------------------------|------------------|------------------|------------------|------------------|------------------|-------------------|
| | No. | No. | No. | No. | No. | No. |
| Newfoundland..... | 63,374 | 59,539 | 45,997 | 35,660 | 30,018 | 52,207 |
| Prince Edward Island..... | 12,285 | 12,521 | 9,828 | 8,190 | 6,147 | 11,002 |
| Nova Scotia..... | 85,972 | 82,033 | 67,566 | 56,326 | 49,069 | 90,428 |
| New Brunswick..... | 74,299 | 73,034 | 57,938 | 47,048 | 36,421 | 69,286 |
| Quebec..... | 597,728 | 556,621 | 467,237 | 370,246 | 353,191 | 707,106 |
| Ontario..... | 628,825 | 563,678 | 425,922 | 346,850 | 365,160 | 856,108 |
| Manitoba..... | 100,367 | 91,460 | 72,516 | 60,427 | 57,674 | 121,608 |
| Saskatchewan..... | 109,603 | 97,953 | 79,214 | 68,359 | 58,992 | 120,182 |
| Alberta..... | 149,697 | 125,820 | 97,318 | 80,486 | 82,842 | 173,475 |
| British Columbia..... | 156,759 | 140,588 | 108,518 | 86,433 | 86,397 | 206,736 |
| Yukon Territory..... | 1,847 | 1,335 | 795 | 623 | 1,134 | 2,739 |
| Northwest Territories..... | 2,807 | 2,471 | 1,745 | 1,653 | 2,065 | 3,545 |
| Canada..... | 1,983,563 | 1,807,053 | 1,434,594 | 1,162,301 | 1,129,110 | 2,414,422 |
| | 35-44 Years | 45-54 Years | 55-64 Years | 65-69 Years | 70+ Years | All Ages |
| | No. | No. | No. | No. | No. | No. |
| Newfoundland..... | 47,866 | 32,441 | 23,183 | 8,911 | 15,878 | 415,074 |
| Prince Edward Island..... | 11,688 | 9,335 | 7,939 | 3,325 | 7,025 | 99,285 |
| Nova Scotia..... | 89,889 | 65,755 | 48,772 | 19,926 | 38,981 | 694,717 |
| New Brunswick..... | 66,500 | 49,607 | 37,291 | 15,348 | 27,844 | 554,616 |
| Quebec..... | 587,601 | 436,476 | 288,149 | 103,607 | 160,416 | 4,628,378 |
| Ontario..... | 751,882 | 581,506 | 430,627 | 167,371 | 287,004 | 5,404,933 |
| Manitoba..... | 115,396 | 87,941 | 66,084 | 29,240 | 47,327 | 850,040 |
| Saskatchewan..... | 114,626 | 87,351 | 65,739 | 30,108 | 48,538 | 880,665 |
| Alberta..... | 148,334 | 108,779 | 75,038 | 31,796 | 49,531 | 1,123,116 |
| British Columbia..... | 202,007 | 150,188 | 110,059 | 54,078 | 96,701 | 1,398,464 |
| Yukon Territory..... | 1,747 | 1,004 | 476 | 191 | 299 | 12,190 |
| Northwest Territories..... | 2,248 | 1,482 | 804 | 212 | 281 | 19,313 |
| Canada..... | 2,139,784 | 1,611,865 | 1,154,161 | 464,113 | 779,825 | 16,080,791 |

Section 10.—Marital Status

Next to the sex and age distribution of a population, that of marital status is probably most fundamental from a vital, economic and social viewpoint. The number of married females between 15 and 45 years of age is a most significant factor in the fertility of a population; if the proportion of females in this group is small, the expected proportion of births will also be small. In 1956, 64.3 p.c. of all married females were in the age group 15-44 years, as compared with 64.0 p.c. in 1951, 61.2 p.c. in 1941, and 63.5 p.c. in 1931. This trend indicates a movement towards conditions more favourable to a higher birth rate than those which existed during the period of world-wide depression.

The high birth rate of the period 1951-56, which has had such a considerable effect on the increase in the total population and on its age composition, has also been an influence on the increase of 15.7 p.c. in the single population. Most of this gain was in the population under 15 years of age. During the same period, the married population increased by 14.1 p.c., widowed by 10.5 p.c., and divorced by 14.9 p.c. Other striking statistics of marital status are the excess of married males over married females (largely owing to a preponderance of male immigrants whose wives had not yet joined them), the great preponderance of widows as compared to widowers and the large and increasing number of divorced persons.

14.—Marital Status of the Population by Age Group and Sex, Census 1956

| Age Group and Sex | | Single | Married | Widowed | Divorced | Total |
|-----------------------|----|-----------|-----------|---------|----------|------------|
| | | No. | No. | No. | No. | No. |
| Under 15 Years..... | M. | 2,663,819 | — | — | — | 2,663,819 |
| | F. | 2,561,391 | — | — | — | 2,561,391 |
| | T. | 5,225,210 | — | — | — | 5,225,210 |
| 15 - 19 “ | M. | 580,203 | 6,382 | 39 | 11 | 586,635 |
| | F. | 527,136 | 48,384 | 99 | 47 | 575,666 |
| | T. | 1,107,339 | 54,766 | 138 | 58 | 1,162,301 |
| 20 - 24 “ | M. | 409,245 | 157,574 | 186 | 174 | 567,179 |
| | F. | 248,766 | 311,640 | 858 | 667 | 561,931 |
| | T. | 658,011 | 469,214 | 1,044 | 841 | 1,129,110 |
| 25 - 34 “ | M. | 318,489 | 885,563 | 2,092 | 2,227 | 1,208,371 |
| | F. | 179,181 | 1,013,756 | 8,119 | 4,995 | 1,206,051 |
| | T. | 497,670 | 1,899,319 | 10,211 | 7,222 | 2,414,422 |
| 35 - 44 “ | M. | 140,684 | 926,988 | 6,751 | 3,955 | 1,078,378 |
| | F. | 110,532 | 914,906 | 28,368 | 7,600 | 1,061,406 |
| | T. | 251,216 | 1,841,894 | 35,119 | 11,555 | 2,139,784 |
| 45 - 54 “ | M. | 102,230 | 714,831 | 16,533 | 4,068 | 837,662 |
| | F. | 84,348 | 622,030 | 62,389 | 5,436 | 774,203 |
| | T. | 186,578 | 1,336,861 | 78,922 | 9,504 | 1,611,865 |
| 55 - 64 “ | M. | 70,075 | 480,954 | 33,951 | 2,645 | 587,625 |
| | F. | 57,006 | 392,000 | 115,309 | 2,221 | 566,536 |
| | T. | 127,081 | 872,954 | 149,260 | 4,866 | 1,154,161 |
| 65 - 69 “ | M. | 27,491 | 180,721 | 28,427 | 912 | 237,551 |
| | F. | 21,638 | 126,693 | 77,765 | 466 | 226,562 |
| | T. | 49,129 | 307,414 | 106,192 | 1,378 | 464,113 |
| 70 years or over..... | M. | 43,344 | 233,628 | 106,743 | 944 | 384,659 |
| | F. | 40,561 | 130,623 | 223,582 | 400 | 395,166 |
| | T. | 83,905 | 364,251 | 330,325 | 1,344 | 779,825 |
| All Ages..... | M. | 4,355,580 | 3,586,641 | 194,722 | 14,936 | 8,151,879 |
| | F. | 3,830,559 | 3,560,932 | 516,489 | 21,832 | 7,928,912 |
| | T. | 8,186,139 | 7,146,673 | 711,211 | 36,768 | 16,080,791 |

Section 11.—Origins

A population composed of diverse racial stocks gives rise to political, economic and social problems quite different in nature from those of one with a small admixture of foreign elements although, to the extent that certain racial stocks are more readily assimilated than others, the problems are mitigated. It is equally true that the different educational, moral, economic, religious and political backgrounds of a people of mixed origins lend variety and diversity to the national life.

The two basic stocks of the Canadian people are the French and the English: historically the French is much the older and, excepting at the time of the 1921 Census, has always exceeded in numbers any one of the basic British stocks.

For purposes of the census a person's origin or cultural group is traced through his father. For example if a person's father is German and his mother Norwegian the origin is entered as "German". Wherever possible the origin of a person is established by asking the language spoken by the person or by his paternal ancestor when he first came to Canada.

Census of 1951 data are the latest available on origins of the population.

15.—Origins of the Population, Census Years 1931, 1941 and 1951

NOTE.—Figures for census years 1871-1921 are given in the 1948-49 Year Book, p. 154.

| Origin | 1931 | 1941 | 1951 | Origin | 1931 | 1941 | 1951 |
|---------------------------|------------------|------------------|------------------|----------------------------|-------------------|-------------------|-------------------|
| No. | No. | No. | No. | No. | No. | No. | No. |
| British | 5,381,071 | 5,715,904 | 6,709,685 | Other European— | | | |
| English..... | 2,741,419 | 2,968,402 | 3,630,344 | concluded | | | |
| Irish..... | 1,230,808 | 1,267,702 | 1,439,635 | Norwegian..... | 93,243 | 100,718 | 119,266 |
| Scottish..... | 1,346,350 | 1,403,974 | 1,547,470 | Polish..... | 145,503 | 167,485 | 219,845 |
| Other..... | 62,494 | 75,826 | 92,236 | Romanian..... | 29,056 | 24,689 | 23,601 |
| | | | | Russian..... | 88,148 | 83,708 | 91,279 |
| | | | | Swedish..... | 81,306 | 85,396 | 97,780 |
| | | | | Ukrainian..... | 225,113 | 305,929 | 395,043 |
| | | | | Yugoslavic..... | 16,174 | 21,214 | 21,404 |
| | | | | Other..... | 9,392 | 9,787 | 35,616 |
| Other European ... | 4,753,242 | 5,526,964 | 6,872,889 | | | | |
| French..... | 2,927,990 | 3,483,038 | 4,319,167 | Asiatic | 84,548 | 74,064 | 72,827 |
| Austrian..... | 48,639 | 37,715 | 32,231 | Chinese..... | 46,519 | 34,627 | 32,528 |
| Belgian..... | 27,585 | 29,711 | 35,148 | Japanese..... | 23,342 | 23,149 | 21,663 |
| Czech and | | | | Other..... | 14,687 | 16,288 | 18,636 |
| Slovak..... | 30,401 | 42,912 | 63,959 | | | | |
| Danish..... | 34,118 | 37,439 | 42,671 | Other Origins | 157,925 | 189,723 | 354,028 |
| Finnish..... | 43,885 | 41,683 | 43,745 | Native Indian and | | | |
| German..... | 473,544 | 464,682 | 619,995 | Eskimo..... | 128,890 | 125,521 | 165,607 |
| Greek..... | 9,444 | 11,692 | 13,966 | Negro..... | 19,456 | 22,174 | 18,020 |
| Hungarian..... | 40,582 | 54,598 | 60,460 | Other and not | | | |
| Icelandic..... | 19,382 | 21,050 | 23,307 | stated..... | 9,579 | 42,028 | 170,401 |
| Italian..... | 98,173 | 112,625 | 152,245 | | | | |
| Jewish..... | 156,726 | 170,241 | 181,670 | Totals | 10,376,786 | 11,506,655 | 14,009,429 |
| Lithuanian..... | 5,876 | 7,789 | 16,224 | | | | |
| Netherlands..... | 148,962 | 212,863 | 264,267 | | | | |

¹ Includes 35,416 half-breeds.

Section 12.—Religious Denominations

At each decennial census the numbers of persons attached to any religious denomination, as reported by the persons enumerated, have been recorded. The distribution of the principal denominations for the census years 1931, 1941 and 1951 is given in Table 16.

16.—Principal Religious Denominations of the Population, Census Years 1931, 1941 and 1951

NOTE.—More detailed figures for census years 1871-1921 are given in the 1948-49 Year Book, p. 155.

| Religious Denomination | 1931 | 1941 | 1951 | | Religious Denomination | 1931 | 1941 | 1951 | |
|-----------------------------------|-----------|-----------|-----------|------|----------------------------|----------------------|----------------------|------------|-------|
| | No. | No. | No. | p.c. | | No. | No. | No. | p.c. |
| Adventist..... | 16,058 | 18,485 | 21,398 | 0.2 | Pentecostal..... | 26,349 | 57,742 | 95,131 | 0.7 |
| Baptist..... | 443,944 | 484,465 | 519,585 | 3.7 | Presbyterian.... | 872,428 | 830,597 | 781,747 | 5.6 |
| Christian Science | 18,499 | 20,261 | 20,795 | 0.1 | Roman Catholic. | 4,102,960 | 4,806,431 | 6,069,496 | 43.3 |
| Church of Eng- land in Canada. | 1,639,075 | 1,754,368 | 2,060,720 | 14.7 | Salvation Army. | 30,773 | 33,609 | 70,275 | 0.5 |
| Evangelical | | | | | Ukrainian | | | | |
| Church..... | 22,239 | 37,064 | 50,900 | 0.4 | (Greek) Cath- olic..... | 186,879 ² | 185,948 ² | 190,831 | 1.4 |
| Greek Orthodox. | 102,529 | 139,845 | 172,271 | 1.2 | United Church of | | | | |
| Jewish..... | 155,766 | 168,585 | 204,836 | 1.5 | Canada..... | 2,021,065 | 2,208,658 | 2,867,271 | 20.5 |
| Lutheran..... | 394,920 | 401,836 | 444,923 | 3.2 | Other..... | 232,424 | 221,879 | 280,424 | 2.0 |
| Mennonite ¹ | 88,837 | 111,554 | 125,938 | 0.9 | | | | | |
| Mormon..... | 22,041 | 25,328 | 32,888 | 0.2 | Totals..... | 10,376,786 | 11,506,655 | 14,009,429 | 100.0 |

¹ Includes "Hutterite".² Includes "Other Greek Catholic".

Section 13.—Countries of Birth

The decennial census collects information on the country of birth of immigrant arrivals in Canada and province of birth of Canadian born. For persons born outside of Canada the country of birth as constituted at the date of the census is recorded. Table 17 gives the total population by countries of birth for the census years 1931, 1941 and 1951.

17.—Countries of Birth of the Population, Census Years 1931, 1941 and 1951

NOTE.—Figures for census years 1871-1921 are given in the 1948-49 Year Book, p. 153.

| Country of Birth | 1931 | 1941 | 1951 | Country of Birth | 1931 | 1941 | 1951 |
|-------------------------|------------------------|----------------------|-------------------|--|-------------------|-------------------------------|-------------------|
| | No. | No. | No. | | No. | No. | No. |
| Canada | 8,069,261 | 9,487,808 | 11,949,518 | Europe—concl. | | | |
| United Kingdom..... | 1,138,942 ¹ | 960,125 ¹ | 912,482 | Union of Soviet Socialist Republics ² | 133,869 | 124,402 | 188,292 |
| Other Commonwealth..... | 45,888 | 43,644 | 20,567 | Scandinavian countries ³ | 90,042 | 72,473 | 64,522 |
| Europe..... | 714,462 | 653,705 | 801,618 | Central European countries ⁴ | 317,350 | 309,360 | 305,192 |
| Belgium..... | 17,033 | 14,773 | 17,251 | Other Europe..... | 11,002 | 9,810 | 38,143 |
| Finland..... | 30,354 | 24,387 | 22,035 | Asia..... | 60,608 | 44,448 | 37,145 |
| France..... | 16,756 | 13,795 | 15,650 | United States..... | 344,574 | 312,473 | 282,010 |
| Germany..... | 39,163 | 28,479 | 42,693 | Other countries..... | 3,051 | 3,512 | 6,089 |
| Greece..... | 5,579 | 5,871 | 8,594 | | | | |
| Italy..... | 42,578 | 40,432 | 57,789 | Totals | 10,376,786 | 11,506,655⁵ | 14,009,429 |
| Netherlands..... | 10,736 | 9,923 | 41,457 | | | | |

¹Includes the 26 counties of Ireland in 1931 and 1941.

²Includes Lithuania and Ukraine.

³Includes Denmark, Iceland, Norway and Sweden.

⁴Includes Austria, Czechoslovakia, Hungary, Yugoslavia, Poland and Romania.

⁵Includes "birthplace not stated".

Section 14.—Languages and Mother Tongues

Official language is not to be confused with mother tongue. Mother tongue is the language a person first spoke in childhood and still understands; official language (a term used herein for census purposes) refers only to the English and French languages. The numbers of persons speaking one, both or neither of the official languages as at the date of the 1951 Census are given in Table 18, classified by province.

18.—Population Speaking One, Both or Neither of the Official Languages by Province, Census 1951

NOTE.—Infants are classed as speaking the language of the home.

| Province or Territory | Population Speaking— | | | |
|----------------------------|----------------------|------------------|--------------------|----------------------------|
| | English Only | French Only | English and French | Neither English nor French |
| | No. | No. | No. | No. |
| Newfoundland..... | 356,377 | 153 | 3,990 | 896 |
| Prince Edward Island..... | 88,743 | 914 | 8,745 | 27 |
| Nova Scotia..... | 595,257 | 7,462 | 39,524 | 341 |
| New Brunswick..... | 318,560 | 100,712 | 96,095 | 330 |
| Quebec..... | 462,813 | 2,534,242 | 1,038,130 | 20,496 |
| Ontario..... | 4,115,584 | 78,974 | 359,965 | 43,019 |
| Manitoba..... | 685,914 | 7,869 | 58,441 | 24,317 |
| Saskatchewan..... | 767,248 | 4,656 | 40,789 | 19,035 |
| Alberta..... | 868,696 | 5,922 | 40,785 | 24,098 |
| British Columbia..... | 1,112,937 | 727 | 39,433 | 12,113 |
| Yukon Territory..... | 8,337 | 10 | 519 | 230 |
| Northwest Territories..... | 6,929 | 171 | 1,031 | 7,873 |
| Canada | 9,387,395 | 2,741,812 | 1,727,447 | 152,775 |

Mother tongue spoken is dealt with in Table 19 which shows that 1,659,770 persons at June 1, 1951, had neither English nor French as mother tongue.

19.—Mother Tongues of the Population, Census 1951

NOTE.—Infants are classed as speaking the language of the home.

| Mother Tongue | Number | Percent- age of Total | Mother Tongue | Number | Percent- age of Total |
|------------------------|-----------|-----------------------------|------------------------|-------------------|-----------------------------|
| English..... | 8,280,809 | 59.11 | Lithuanian..... | 12,307 | 0.09 |
| French..... | 4,068,850 | 29.04 | Magyar..... | 42,402 | 0.30 |
| Chinese..... | 28,289 | 0.20 | Netherland..... | 87,935 | 0.63 |
| Danish..... | 15,714 | 0.11 | Norwegian..... | 43,831 | 0.31 |
| Estonian..... | 8,784 | 0.06 | Polish..... | 129,238 | 0.92 |
| Finnish..... | 31,771 | 0.23 | Romanian..... | 10,105 | 0.07 |
| Flemish..... | 12,623 | 0.09 | Russian..... | 39,223 | 0.28 |
| Gaelic..... | 13,974 | 0.10 | Serbo-Croatian..... | 11,031 | 0.08 |
| German..... | 329,302 | 2.35 | Slovak..... | 45,516 | 0.32 |
| Greek..... | 8,036 | 0.06 | Swedish..... | 36,096 | 0.26 |
| Icelandic..... | 11,207 | 0.08 | Syrian and Arabic..... | 5,475 | 0.04 |
| Indian and Eskimo..... | 144,787 | 1.03 | Ukrainian..... | 352,323 | 2.51 |
| Italian..... | 92,244 | 0.66 | Yiddish..... | 103,593 | 0.74 |
| Japanese..... | 17,589 | 0.12 | Other..... | 19,356 | 0.14 |
| Lettish..... | 7,019 | 0.05 | Totals..... | 14,009,429 | 100.00 |

Section 15.—Dwellings, Households and Families*

Households and Families.—Only a summary of the principal statistics on households and families recorded at the Census of 1956 is given here—more detailed information may be found in 1956 Census Reports 1-13 to 1-20 inclusive.

The total number and the average size of households and families for the census years 1951 and 1956 are shown in Table 20 for provinces and cities of 30,000 population or over. Similar figures for census metropolitan areas appear in Table 21. These figures show a consistent trend towards larger families in 1956 as compared with 1951, although the average size of household remained relatively stable over the five-year period.

* Census definitions are briefly as follows: **DWELLINGS.**—A *Dwelling* is defined as a structurally separate set of living premises with private entrance from outside the building, or from a common hallway or stairway inside. A *Single Detached Dwelling*, commonly called a single house, is a house containing one dwelling unit and completely separated on all sides from any other building or structure. *Apartments* and *Flats* include dwelling units in apartment blocks, suites in duplexes or triplexes, suites in structurally converted houses, living quarters located in business premises, janitor's quarters in schools, etc. In determining the number of *Rooms* in a dwelling, only those used or suitable for living purposes including rooms occupied by servants, lodgers, or members of lodging families are counted.

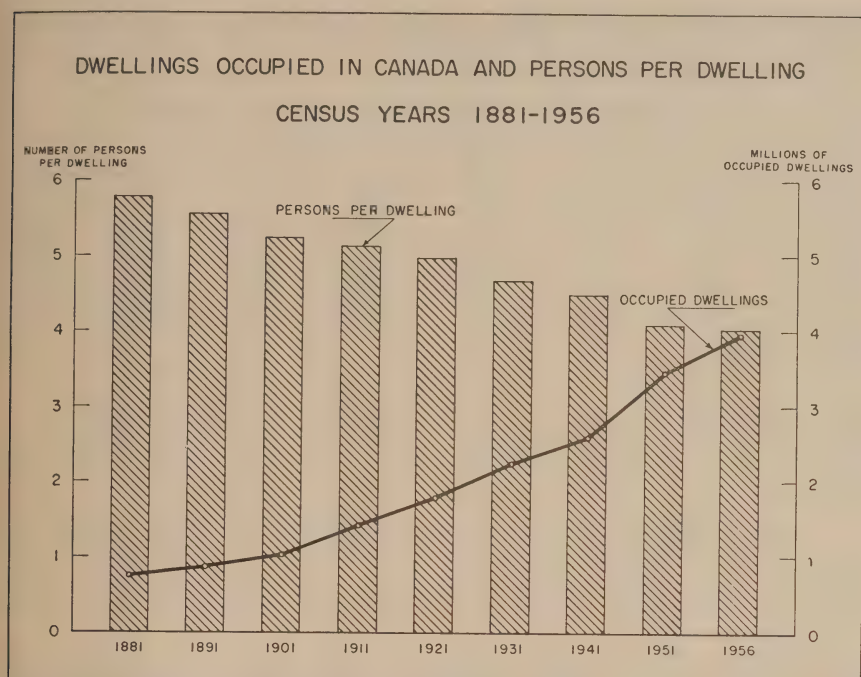
HOUSING.—A *Household* is a person or group of persons occupying one dwelling unit, the number of households thus equalling the number of occupied dwellings. Every person must be a member of some household, whether it consists of a family group with or without servants, lodgers, etc., a group of unrelated persons sharing a dwelling, or one person living alone. A dwelling is classed in need of *Major Repair* if it possesses any one of the following defects: sagging or rotting foundations indicated by cracked or leaning walls; faulty roof or chimney; unsafe outside steps or stairways; interior badly in need of repair. A *Crowded Dwelling* (or Household) is defined as one in which the number of persons exceeds the number of rooms occupied.

FAMILY.—A husband and wife (with or without children who have never married), or a parent with one or more children never married, living together in the same dwelling. Adopted children and step-children have the same status as natural children and, in fact, a family, for census purposes, may comprise a man or woman living with a guardianship child or ward under 21 years of age.

20.—Households and Families, and Persons per Household and Family, by Province and City of 30,000 Population or Over, Census Years 1951 and 1956

| Province and City | Households | | Families | | Persons per Household | | Persons per Family | |
|---|------------------------------|-------------------|------------------|------------------|------------------------|-------------------|--------------------|------------|
| | 1951 ¹ | 1956 ¹ | 1951 | 1956 | 1951 ¹ | 1956 ¹ | 1951 | 1956 |
| | No. | No. | No. | No. | No. | No. | No. | No. |
| Newfoundland..... | 70,980 | 78,808 | 74,858 | 82,128 | 5.0 | 5.1 | 4.4 | 4.6 |
| St. John's..... | 10,572 | 11,219 | 11,427 | 12,163 | 4.8 | 4.9 | 4.0 | 4.1 |
| Prince Edward Island.... | 22,454 | 22,682 | 21,381 | 21,153 | 4.3 | 4.2 | 4.0 | 4.1 |
| Nova Scotia..... | 149,555 | 162,854 | 145,127 | 154,243 | 4.2 | 4.1 | 3.9 | 3.9 |
| Halifax..... | 18,709 | 21,194 | 19,016 | 20,509 | 4.1 | 4.0 | 3.5 | 3.5 |
| Sydney..... | 6,324 | 6,914 | 7,080 | 7,092 | 4.8 | 4.5 | 3.9 | 4.0 |
| New Brunswick..... | 114,007 | 120,475 | 111,639 | 116,623 | 4.4 | 4.5 | 4.1 | 4.2 |
| Moncton..... | 6,595 | 8,647 | 6,424 | 8,286 | 4.0 | 4.0 | 3.5 | 3.7 |
| Saint John..... | 13,178 | 13,336 | 12,224 | 12,230 | 3.8 | 3.8 | 3.5 | 3.6 |
| Quebec..... | 858,784 | 1,001,264 | 856,041 | 970,414 | 4.6 | 4.4 | 4.2 | 4.2 |
| Hull..... | 9,324 | 11,167 | 9,916 | 11,240 | 4.6 | 4.3 | 4.0 | 4.0 |
| Jacques-Cartier..... | 4,779 | 6,927 | 4,908 | 7,011 | 4.7 | 4.8 | 4.3 | 4.5 |
| Lachine..... | 6,385 | 8,557 | 6,751 | 8,588 | 4.1 | 3.9 | 3.6 | 3.6 |
| Montreal..... | 247,482 | 285,501 | 246,389 | 267,934 | 4.0 | 3.7 | 3.5 | 3.5 |
| Quebec..... | 34,970 | 38,556 | 33,830 | 35,996 | 4.4 | 4.2 | 4.1 | 4.0 |
| St. Laurent..... | 4,976 | 9,304 | 5,039 | 9,148 | 3.9 | 4.0 | 3.6 | 3.8 |
| Sherbrooke..... | 11,543 | 13,646 | 11,034 | 12,595 | 4.1 | 4.1 | 3.9 | 4.1 |
| Three Rivers..... | 9,528 | 10,912 | 9,466 | 10,464 | 4.6 | 4.4 | 4.3 | 4.2 |
| Verdun..... | 19,806 | 21,009 | 20,123 | 20,293 | 3.8 | 3.6 | 3.4 | 3.4 |
| Ontario..... | 1,181,126 | 1,392,491 | 1,162,772 | 1,342,572 | 3.8 | 3.8 | 3.4 | 3.5 |
| Brantford..... | 10,373 | 14,642 | 9,774 | 13,494 | 3.5 | 3.5 | 3.2 | 3.4 |
| Fort William..... | 9,297 | 10,118 | 9,015 | 9,926 | 3.7 | 3.7 | 3.4 | 3.5 |
| Guelph..... | 7,104 | 9,284 | 7,084 | 8,597 | 3.8 | 3.5 | 3.3 | 3.4 |
| Hamilton..... | 55,337 | 63,815 | 55,764 | 62,329 | 3.7 | 3.7 | 3.2 | 3.3 |
| Kingston..... | 8,708 | 12,499 | 8,485 | 11,352 | 3.7 | 3.6 | 3.2 | 3.4 |
| Kitchener..... | 11,571 | 16,074 | 11,832 | 15,539 | 3.8 | 3.6 | 3.2 | 3.4 |
| London..... | 26,384 | 28,962 | 24,679 | 25,277 | 3.5 | 3.3 | 3.1 | 3.3 |
| Oshawa..... | 11,225 | 13,530 | 11,170 | 13,335 | 3.7 | 3.7 | 3.2 | 3.4 |
| Ottawa..... | 48,968 | 56,059 | 48,811 | 52,760 | 3.9 | 3.8 | 3.4 | 3.5 |
| Peterborough..... | 10,018 | 11,632 | 9,807 | 10,671 | 3.8 | 3.6 | 3.4 | 3.5 |
| Port Arthur..... | 8,426 | 9,979 | 8,082 | 9,442 | 3.6 | 3.6 | 3.4 | 3.5 |
| St. Catharines..... | 10,383 | 10,971 | 10,051 | 10,257 | 3.6 | 3.5 | 3.3 | 3.3 |
| Sarnia..... | 9,380 | 11,917 | 8,953 | 10,980 | 3.7 | 3.6 | 3.4 | 3.6 |
| Sault Ste. Marie..... | 7,856 | 9,169 | 8,124 | 9,127 | 4.1 | 3.9 | 3.5 | 3.6 |
| Sudbury..... | 9,452 | 11,526 | 9,978 | 11,092 | 4.4 | 3.9 | 3.7 | 3.6 |
| Toronto..... | 157,174 | 157,137 | 177,984 | 169,971 | 4.2 | 4.1 | 3.0 | 3.1 |
| Windsor..... | 31,813 | 33,280 | 30,855 | 30,786 | 3.7 | 3.6 | 3.4 | 3.4 |
| Manitoba..... | 202,398 | 217,964 | 191,268 | 204,414 | 3.7 | 3.7 | 3.6 | 3.6 |
| Winnipeg..... | 64,629 | 67,798 | 63,117 | 66,019 | 3.6 | 3.6 | 3.1 | 3.2 |
| Saskatchewan..... | 221,456 | 233,664 | 196,188 | 205,135 | 3.7 | 3.6 | 3.7 | 3.8 |
| Regina..... | 19,161 | 23,883 | 18,229 | 22,313 | 3.6 | 3.6 | 3.3 | 3.4 |
| Saskatoon..... | 14,982 | 20,315 | 13,639 | 18,065 | 3.4 | 3.4 | 3.3 | 3.4 |
| Alberta..... | 250,747 | 294,047 | 223,326 | 262,922 | 3.6 | 3.7 | 3.7 | 3.7 |
| Calgary..... | 37,711 | 52,785 | 34,053 | 46,176 | 3.3 | 3.3 | 3.2 | 3.3 |
| Edmonton..... | 42,922 | 57,748 | 40,278 | 55,525 | 3.6 | 3.7 | 3.3 | 3.5 |
| British Columbia..... | 337,777 | 392,403 | 299,845 | 346,003 | 3.3 | 3.4 | 3.3 | 3.4 |
| New Westminster..... | 7,984 | 8,874 | 7,278 | 7,711 | 3.3 | 3.2 | 3.2 | 3.3 |
| Vancouver..... | 101,330 | 108,953 | 92,798 | 94,467 | 3.3 | 3.2 | 3.0 | 3.1 |
| Victoria..... | 15,788 | 17,309 | 13,632 | 14,041 | 3.1 | 3.0 | 3.0 | 3.0 |
| Yukon and Northwest Territories..... | .. | 6,994 | 4,939 | 5,893 | .. | 3.8 | 3.9 | 4.1 |
| Canada..... | 3,409,284² | 3,923,646 | 3,287,384 | 3,711,500 | 4.0² | 3.9 | 3.7 | 3.8 |

¹ Exclusive of institutions, hotels, camps, etc.² Exclusive of the Yukon and Northwest Territories.



21.—Households and Families, and Persons per Household and Family, by Census Metropolitan Area, Census Years 1951 and 1956

| Metropolitan Area | Households | | Families | | Persons per Household | | Persons per Family | |
|-------------------|------------|---------|----------|---------|-----------------------|------|--------------------|------|
| | 1951 | 1956 | 1951 | 1956 | 1951 | 1956 | 1951 | 1956 |
| | No. | No. | No. | No. | No. | No. | No. | No. |
| Calgary..... | 40,235 | 57,375 | 36,429 | 50,600 | 3.3 | 3.4 | 3.2 | 3.4 |
| Edmonton..... | 46,395 | 63,581 | 43,548 | 61,305 | 3.6 | 3.8 | 3.4 | 3.5 |
| Halifax..... | 29,640 | 37,171 | 30,327 | 36,799 | 4.2 | 4.1 | 3.6 | 3.7 |
| Hamilton..... | 68,640 | 86,990 | 68,820 | 84,941 | 3.7 | 3.7 | 3.2 | 3.4 |
| London..... | 32,835 | 42,354 | 31,117 | 38,394 | 3.5 | 3.4 | 3.2 | 3.4 |
| Montreal..... | 334,705 | 407,966 | 334,967 | 387,785 | 4.0 | 3.8 | 3.6 | 3.6 |
| Ottawa..... | 66,265 | 83,859 | 67,017 | 80,713 | 4.1 | 4.0 | 3.6 | 3.7 |
| Quebec..... | 54,930 | 64,825 | 54,076 | 62,176 | 4.6 | 4.4 | 4.3 | 4.2 |
| Saint John..... | 19,735 | 21,169 | 18,414 | 19,628 | 3.8 | 3.8 | 3.6 | 3.7 |
| St. John's..... | 12,995 | 14,788 | 13,964 | 15,876 | 4.9 | 5.0 | 4.2 | 4.3 |
| Toronto..... | 273,200 | 341,076 | 302,381 | 360,904 | 4.0 | 3.9 | 3.1 | 3.2 |
| Vancouver..... | 153,975 | 192,004 | 141,939 | 171,296 | 3.3 | 3.3 | 3.1 | 3.3 |
| Victoria..... | 31,620 | 38,411 | 27,988 | 32,949 | 3.1 | 3.1 | 3.0 | 3.2 |
| Windsor..... | 41,595 | 49,882 | 40,729 | 47,166 | 3.7 | 3.7 | 3.4 | 3.5 |
| Winnipeg..... | 95,955 | 107,841 | 94,321 | 105,211 | 3.6 | 3.7 | 3.2 | 3.3 |

In Table 22 households are classified according to the number of persons, the number of family groups, and the number of lodgers they contain. This information is shown for Canada as a whole with comparable figures from the 1951 and 1956 Censuses. It will be seen that the two-person household was the most common household size in both years, and in 1956 two-person households represented nearly 22 p.c. of all households. The percentage of multiple-family households and households with lodgers showed a

decrease between 1951 and 1956. This is consistent with the fact previously stated that, although families showed a noticeable increase in size between 1951 and 1956, there was no corresponding increase in size of household.

22.—Household Composition, Census Years 1951 and 1956

| Item | 1951 | | 1956 | |
|--------------------------------|-----------|------|-----------|------|
| | No. | p.c. | No. | p.c. |
| Persons in Households— | | | | |
| 1..... | 252,435 | 7.4 | 308,613 | 7.9 |
| 2..... | 711,110 | 20.9 | 859,109 | 21.9 |
| 3..... | 688,025 | 20.2 | 739,390 | 18.8 |
| 4..... | 645,515 | 18.9 | 742,363 | 18.9 |
| 5..... | 439,875 | 12.9 | 513,821 | 13.1 |
| 6-9..... | 581,675 | 17.1 | 664,366 | 16.9 |
| 10+..... | 90,660 | 2.7 | 95,984 | 2.4 |
| Families in Households— | | | | |
| 0..... | 385,010 | 11.3 | 459,420 | 11.7 |
| 1..... | 2,794,860 | 82.0 | 3,259,499 | 83.1 |
| 2+..... | 229,425 | 6.7 | 204,727 | 5.2 |
| Lodgers in Households— | | | | |
| 0..... | 3,081,085 | 90.4 | 3,610,238 | 92.0 |
| 1..... | 171,310 | 5.0 | 162,067 | 4.1 |
| 2..... | 73,480 | 2.2 | 68,950 | 1.8 |
| 3+..... | 83,420 | 2.4 | 82,391 | 2.1 |

In Table 23 families are classified according to whether or not they maintained their own households. Those not maintaining their own households fall into two main sub-categories—families related to the head of the household, and non-related lodging families. In addition, there are a few who do not fit either of these sub-categories, chiefly families of employees who live in their employer's household.

The percentage of families maintaining their own households rose from 90.2 in 1951 to 92.3 in 1956. This is again consistent with the earlier statement of a smaller percentage of multiple-family households in 1956 than in 1951. All of these indicators point to an improvement in living conditions over the five-year period.

23.—Percentage of Families in each Type of Household by Province, Census 1956

| Province or Territory | Maintaining Own Household | Not Maintaining Own Household | | | All Families |
|--------------------------------------|---------------------------|-------------------------------|------------|--------------------|------------------|
| | | Related | Lodging | Total ¹ | |
| | p.c. | p.c. | p.c. | p.c. | No. |
| Newfoundland..... | 88.9 | 9.4 | 1.4 | 11.1 | 82,128 |
| Prince Edward Island..... | 91.6 | 6.9 | 1.1 | 8.4 | 21,153 |
| Nova Scotia..... | 91.2 | 6.7 | 1.6 | 8.8 | 154,243 |
| New Brunswick..... | 91.7 | 6.8 | 1.2 | 8.3 | 116,623 |
| Quebec..... | 93.4 | 4.9 | 1.5 | 6.6 | 970,414 |
| Ontario..... | 90.3 | 5.0 | 4.4 | 9.7 | 1,342,572 |
| Manitoba..... | 92.6 | 3.7 | 3.3 | 7.4 | 204,414 |
| Saskatchewan..... | 95.9 | 2.6 | 1.1 | 4.1 | 205,135 |
| Alberta..... | 94.7 | 2.9 | 1.7 | 5.3 | 262,922 |
| British Columbia..... | 94.6 | 3.1 | 2.0 | 5.4 | 346,003 |
| Yukon and Northwest Territories..... | 95.3 | 3.0 | 0.8 | 4.7 | 5,893 |
| Canada..... | 92.3 | 4.7 | 2.7 | 7.7 | 3,711,500 |

¹ Includes other types of families not maintaining own household.

Table 24 shows the number of children in families in 1956. This is limited to children never married under 25 years of age and living with their parents or guardians at the time of the 1956 Census. The number of children is classified to show the percentage of children in each of four separate age groups which correspond roughly with the pre-school children, those of elementary school age, those at the secondary school level, and those of college or working age.

24.—Percentage of Children at Home, 24 Years of Age or Under, by Age Group and Province, Census 1956

| Province or Territory | Under 6 Years | 6-13 Years | 14-17 Years | 18-24 Years | Total Children |
|--------------------------------------|---------------|-------------|-------------|-------------|------------------|
| | p.c. | p.c. | p.c. | p.c. | No. |
| Newfoundland..... | 35.7 | 40.0 | 13.4 | 11.0 | 210,360 |
| Prince Edward Island..... | 33.2 | 41.1 | 15.0 | 10.7 | 43,519 |
| Nova Scotia..... | 34.4 | 40.4 | 14.9 | 10.4 | 293,299 |
| New Brunswick..... | 34.2 | 40.6 | 14.5 | 10.6 | 257,311 |
| Quebec..... | 33.7 | 38.5 | 14.0 | 13.8 | 2,094,499 |
| Ontario..... | 36.7 | 39.1 | 13.5 | 10.7 | 2,009,876 |
| Manitoba..... | 35.7 | 39.6 | 14.2 | 10.5 | 330,682 |
| Saskatchewan..... | 35.9 | 39.3 | 14.9 | 10.0 | 358,534 |
| Alberta..... | 38.2 | 38.8 | 13.7 | 9.3 | 455,735 |
| British Columbia..... | 37.0 | 39.7 | 13.8 | 9.5 | 495,918 |
| Yukon and Northwest Territories..... | 42.4 | 37.9 | 11.6 | 8.0 | 12,665 |
| Canada..... | 35.5 | 39.1 | 13.9 | 11.4 | 6,562,398 |

In Table 25 families are classified by age of family head and in Table 26 they are classified into two groups: those consisting of a husband and wife with or without children, and those consisting of one parent only. The latter are classified further according to the marital status and sex of the family head. Widowed heads form the bulk of this group.

25.—Families classified by Age of Head and by Province, Census 1956

| Province or Territory | Under 35 Years | 35-44 Years | 45-54 Years | 55-64 Years | 65 Years or Over | Total Families |
|--------------------------------------|------------------|----------------|----------------|----------------|------------------|------------------|
| | No. | No. | No. | No. | No. | No. |
| Newfoundland..... | 22,793 | 21,392 | 15,509 | 11,339 | 11,095 | 82,128 |
| Prince Edward Island..... | 4,605 | 4,922 | 4,184 | 3,449 | 3,993 | 21,153 |
| Nova Scotia..... | 41,002 | 39,228 | 29,826 | 21,095 | 23,092 | 154,243 |
| New Brunswick..... | 30,443 | 29,572 | 122,688 | 16,577 | 17,343 | 116,623 |
| Quebec..... | 281,959 | 252,649 | 198,174 | 131,346 | 106,286 | 970,414 |
| Ontario..... | 388,056 | 337,242 | 266,471 | 186,401 | 164,402 | 1,342,572 |
| Manitoba..... | 52,447 | 50,718 | 40,388 | 29,601 | 31,260 | 204,414 |
| Saskatchewan..... | 50,583 | 49,867 | 40,744 | 30,262 | 33,679 | 205,135 |
| Alberta..... | 77,506 | 66,753 | 51,683 | 34,193 | 32,787 | 262,922 |
| British Columbia..... | 89,467 | 87,870 | 69,057 | 44,868 | 54,741 | 346,003 |
| Yukon and Northwest Territories..... | 2,376 | 1,599 | 1,052 | 527 | 339 | 5,893 |
| Canada..... | 1,041,237 | 941,812 | 739,776 | 509,658 | 479,017 | 3,711,500 |

26.—Families classified by Marital Status and Sex of Family Head, by Province, Census 1956

| Province or Territory | Families with Husband and Wife at Home | Families with Only One Parent at Home | | | | | | | | Total Families |
|--|---|---------------------------------------|----------------|---------------|---------------|---------------|---------------|--------------------|----------------|-------------------|
| | | Widowed Head | | Married Head | | Divorced Head | | Total ¹ | | |
| | | Male | Female | Male | Female | Male | Female | Male | Female | |
| | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| Newfoundland..... | 74,037 | 1,860 | 4,438 | 540 | 1,018 | 6 | 22 | 2,477 | 5,614 | 82,128 |
| Prince Edward Island..... | 18,628 | 443 | 1,277 | 136 | 577 | 2 | 22 | 598 | 1,927 | 21,153 |
| Nova Scotia..... | 136,152 | 2,580 | 9,077 | 1,406 | 4,083 | 112 | 360 | 4,238 | 13,853 | 154,243 |
| New Brunswick..... | 104,968 | 1,822 | 5,980 | 902 | 2,380 | 75 | 291 | 2,860 | 8,795 | 116,623 |
| Quebec..... | 884,802 | 15,837 | 50,541 | 6,872 | 10,538 | 162 | 833 | 23,107 | 62,505 | 970,414 |
| Ontario..... | 1,234,229 | 13,772 | 56,810 | 8,508 | 23,155 | 831 | 4,061 | 23,364 | 84,979 | 1,342,572 |
| Manitoba..... | 186,693 | 2,503 | 9,401 | 1,105 | 3,549 | 133 | 687 | 3,792 | 13,929 | 204,414 |
| Saskatchewan..... | 188,257 | 2,565 | 8,827 | 1,260 | 3,198 | 110 | 424 | 4,001 | 12,877 | 205,135 |
| Alberta..... | 242,319 | 2,627 | 10,084 | 1,682 | 4,464 | 267 | 1,088 | 4,630 | 15,973 | 262,922 |
| British Columbia..... | 317,788 | 2,950 | 13,170 | 2,081 | 6,622 | 517 | 2,327 | 5,629 | 22,586 | 346,003 |
| Yukon and North- west Territories.... | 5,188 | 142 | 218 | 122 | 145 | 4 | 7 | 279 | 426 | 5,893 |
| Canada..... | 3,393,061 | 47,101 | 169,823 | 24,614 | 59,729 | 2,219 | 10,122 | 74,975 | 243,464 | 3,711,500 |

¹ Includes a few families with heads never married.

Housing Characteristics.—A census of housing was not taken in 1956 so that the latest census information on housing characteristics is for the year 1951.

Table 27 shows that the increase in the number of dwellings during the 1941-51 decade was 11 p.c. higher than the increase in population, thus reducing the number of persons per dwelling from 4.3 to 4.0. Definition changes between 1941 and 1951 are partly responsible for the relatively larger increase in dwellings particularly of the apartment and flat type. Since owned dwellings increased by 49.1 p.c. and rented dwellings by only 4.2 p.c., it would appear that many people who were tenants in 1941 have since bought homes and that most new homes were built for owners rather than for tenant occupancy.

The 1941 Census of Housing was based on a 10 p.c. sample of dwellings situated within the nine provinces. For the 1951 Census the size of the sample was increased to 20 p.c. and the coverage included Newfoundland but, as in 1941, did not extend to the Yukon and Northwest Territories. For comparative purposes Newfoundland is omitted from the 1951 figures in Table 27. The number of occupied dwellings in Newfoundland in 1951 totalled 70,980 as against a 1945 figure of 62,293.

27.—Housing Characteristics, Census Years 1941 and 1951

(Excludes Newfoundland and the Territories)

| Characteristics | 1941 | | 1951 | | Increase 1941-51 | |
|---|------------------|---------------|----------------------|---------------|------------------|-------------|
| | No. | P.C. of Total | No. | P.C. of Total | No. | P.C. |
| Occupied Dwellings¹ | 2,575,744 | 100.0 | 3,338,315 | 100.0 | 762,571 | 29.6 |
| Single detached..... | 1,853,454 | 72.0 | 2,216,275 | 66.4 | 362,821 | 19.6 |
| Apartments and flats..... | 533,034 | 20.7 | 881,245 | 26.4 | 348,211 | 65.3 |
| Single attached..... | 189,256 | 7.3 | 240,795 ² | 7.2 | 51,539 | 27.2 |
| Owned..... | 1,459,357 | 56.7 | 2,175,415 | 65.2 | 716,058 | 49.1 |
| Rented..... | 1,116,387 | 43.3 | 1,162,900 | 34.8 | 46,513 | 4.2 |
| Rooms per dwelling..... | 5.5 | ... | 5.3 | ... | ... | ... |
| Persons per dwelling..... | 4.3 | ... | 4.0 | ... | ... | ... |
| In need of major repair..... | 695,736 | 27.0 | 450,625 | 13.5 | -245,111 | -35.2 |
| Crowded dwellings ³ | 148,418 | 18.4 | 175,995 | 16.0 | 27,577 | 18.6 |
| Dwellings with— | | | | | | |
| Electric lighting..... | 1,780,667 | 69.1 | 2,929,450 | 87.8 | 1,148,783 | 64.5 |
| Furnace heating..... | 997,588 | 38.7 | 1,632,275 | 48.9 | 634,687 | 63.6 |
| Running water..... | 1,558,586 | 60.5 | 2,503,080 | 75.0 | 944,494 | 60.6 |
| Flush toilet ⁴ | 1,342,198 | 52.1 | 2,170,815 | 65.0 | 828,617 | 61.7 |
| Bath or shower ⁴ | 1,169,760 | 45.4 | 1,926,455 | 57.7 | 756,695 | 64.7 |
| Electric or gas range..... | 1,019,421 | 39.6 | 1,696,130 | 50.8 | 676,709 | 66.4 |
| Electric or gas refrigeration..... | 538,535 | 20.9 | 1,589,625 | 47.6 | 1,051,090 | 195.2 |
| Electric vacuum cleaner..... | 624,178 | 24.2 | 1,409,090 | 42.2 | 784,912 | 125.8 |
| Telephone..... | 1,037,298 | 40.3 | 2,013,640 | 60.3 | 976,342 | 94.1 |
| Radio..... | 2,002,889 | 77.8 | 3,086,695 | 92.5 | 1,083,806 | 54.1 |
| Passenger automobile..... | 944,591 | 36.7 | 1,435,925 | 43.0 | 491,334 | 52.0 |
| Owner-occupied non-farm dwellings reporting a mortgage..... | 275,623 | 31.2 | 515,035 | 30.9 | 239,412 | 86.9 |
| Monthly Rent of Tenant-Occupied Non-farm Dwellings— | | | | | | |
| Under \$30 ⁵ | 738,294 | 75.1 | 501,540 | 45.5 | -236,754 | -32.1 |
| \$30-\$59..... | 221,189 | 22.5 | 437,815 | 39.8 | 216,626 | 97.9 |
| \$60 or over..... | 24,034 | 2.4 | 162,265 | 14.7 | 138,231 | 575.1 |

¹ Exclusive of hotels, institutions, camps, etc.

² Includes auto-trailers, houseboats, tents and other miscellaneous types.

³ For cities of 30,000 or over only.

⁴ For exclusive use of household.

⁵ Includes 'rent-free' dwellings.

The statistics of Table 27 reflect the higher level of prosperity at the latter decade in both urban and rural areas. In 1951 a higher percentage of homes had indoor plumbing, electricity and furnace heating, and had such conveniences as mechanical refrigerators,

electric vacuum cleaners, telephones, radios and passenger automobiles. There was a sharp drop in the number of homes needing major repair. Washing machines are not shown in Table 27 because there are no comparable 1941 figures but in 1951, 72.5 p.c. of the dwellings possessed a powered washing machine. Though much of this advance may be attributed to general prosperity, part of the trend is accounted for by the increasing urbanization of the Canadian population and the availability of modern conveniences to rural areas.

Annually since 1953 a sample survey on household facilities and equipment has been conducted in conjunction with the monthly labour force survey. Over 30,000 households chosen by random sampling methods in about 115 different areas are interviewed. Results of the 1956 survey are presented in Table 28.

28.—Housing Characteristics, Sample Survey, September 1956

| Characteristics | No. | P.C. of Total | Characteristics | No. | P.C. of Total |
|---------------------------------------|-----------|---------------------|-----------------------------------|-----------|---------------------|
| Occupied Dwellings ¹ | 3,974,000 | 100.0 | Dwellings with—concl. | | |
| Single detached..... | 2,697,000 | 67.9 | Furnace heating..... | 2,266,000 | 57.0 |
| Apartments, flats..... | 951,000 | 23.9 | Running water..... | 3,249,000 | 81.8 |
| Single attached..... | 326,000 | 8.2 | Flush toilet ² | 2,906,000 | 73.1 |
| Owned..... | 2,685,000 | 67.6 | Bath or shower ² | 2,656,000 | 66.8 |
| Rented..... | 1,289,000 | 32.4 | Electric or gas range..... | 2,619,000 | 65.9 |
| Rooms per dwelling..... | 5.3 | ... | Electric or gas refrigeration... | 3,186,000 | 80.2 |
| Persons per dwelling..... | 4.0 | ... | Electric vacuum cleaner..... | 2,199,000 | 55.3 |
| Dwellings with— | | | Telephone..... | 2,930,000 | 73.7 |
| Electric lighting..... | 3,739,000 | 94.1 | Radio..... | 3,817,000 | 96.0 |
| | | | Passenger automobile..... | 2,321,000 | 58.4 |

¹ Excludes households in the Yukon and Northwest Territories; households of Indians on reserves; such collective type households as those living in hotels, large lodging houses, institutions, clubs and camps. ² For exclusive use of household.

Section 16.—The Blind and Deaf Population

The latest information on totally blind or deaf persons was recorded at the Census of 1951. Persons blind in one eye were not recorded as blind nor were partially deaf persons such as those able to hear with the help of a mechanical aid included as deaf. Table 29 shows the number and proportion of totally blind and/or deaf persons per 10,000 population in each province and territory. More detailed information on this subject is contained in Vol. II of the 1951 Census.

29.—Number of Blind and Deaf Persons and Proportion per 10,000 Population by Province, 1951

| Province or Territory | Number | | | Number per 10,000 Population | | |
|----------------------------|---------------|---------------|----------------|------------------------------|------------|----------------|
| | Blind | Deaf | Blind and Deaf | Blind | Deaf | Blind and Deaf |
| Newfoundland..... | 513 | 497 | 27 | 14.2 | 13.8 | 0.7 |
| Prince Edward Island..... | 104 | 88 | 4 | 10.6 | 8.9 | 0.4 |
| Nova Scotia..... | 943 | 747 | 43 | 14.7 | 11.6 | 0.7 |
| New Brunswick..... | 744 | 554 | 33 | 14.4 | 10.7 | 0.6 |
| Quebec..... | 3,734 | 5,139 | 199 | 9.2 | 12.7 | 0.5 |
| Ontario..... | 4,173 | 3,897 | 200 | 9.1 | 8.5 | 0.4 |
| Manitoba..... | 712 | 596 | 32 | 9.2 | 7.7 | 0.4 |
| Saskatchewan..... | 590 | 628 | 29 | 7.1 | 7.6 | 0.3 |
| Alberta..... | 613 | 556 | 21 | 6.5 | 5.9 | 0.2 |
| British Columbia..... | 972 | 907 | 68 | 8.3 | 7.8 | 0.6 |
| Yukon Territory..... | 8 | 4 | — | 8.8 | 4.4 | — |
| Northwest Territories..... | 18 | 3 | — | 11.2 | 1.9 | — |
| Canada..... | 13,124 | 13,616 | 656 | 9.4 | 9.7 | 0.5 |

Section 17.—The Indians and Eskimos of Canada

The Indians.*—There are more than 155,000 native Indians in Canada today and it is noteworthy that their rate of increase is higher than that of any other segment of the population. They live on more than 2,200 tracts of land which have been reserved for their use and benefit. These reserves are located in every province with the exception of Newfoundland where the provincial government has a responsibility for Indians on the Island and the Coast of Labrador. Elsewhere in Canada, the Indian Affairs Branch of the Federal Department of Citizenship and Immigration is responsible for the administration of the Indian Act and matters affecting the welfare of Indians.

30.—Indian Land in Reserves and Number of Bands by Province, Year Ended Mar. 31, 1957

| Province or Territory | Reserves | | Bands | Province or Territory | Reserves | | Bands |
|--------------------------|----------|-----------|-------|--------------------------|--------------|------------------------------|------------|
| | No. | Area | | | No. | Area | |
| | | acres | No. | | | acres | No. |
| Prince Edward Island.... | 4 | 2,741 | 1 | Saskatchewan..... | 120 | 1,204,489 | 67 |
| Nova Scotia..... | 40 | 19,492 | 2 | Alberta..... | 90 | 1,535,061 | 44 |
| New Brunswick..... | 23 | 37,671 | 16 | British Columbia..... | 1,627 | 820,489 | 204 |
| Quebec..... | 23 | 178,571 | 42 | Northwest Territories... | 10 | 1,924 | 14 |
| Ontario..... | 166 | 1,560,489 | 118 | Yukon Territory..... | 15 | 3,535 | 18 |
| Manitoba..... | 107 | 524,490 | 51 | | | | |
| | | | | Canada..... | 2,225 | 5,888,955¹ | 577 |

¹ Not exact addition of individual items because of rounding of figures.

Administration.—The primary function of the Indian Affairs Branch, under the Indian Act, is to administer the affairs of Canadian Indians in a manner which will enable them to become increasingly self-supporting and independent members of the community. Among the important matters that come within the purview of Canadian Indian administration are: the management of Indian reserves and surrendered lands; tribal or band funds; education; welfare projects; relief; family allowances; rehabilitation of Indian veterans on reserves; descent of property; Indian treaty obligations; and enfranchisement of Indians.

The present Indian Act, proclaimed Sept. 4, 1951, was drawn up after a lengthy inquiry of a Special Committee of the Senate and the House of Commons, and after taking into account the views of the Indians themselves expressed at a conference held for that purpose. The overriding consideration which shaped the present Act was the desire to promote the integration of Indians into Canadian social and economic life.

As a means of achieving this, the Act makes provision for the election of Band councils whose authority extends over a number of areas of immediate concern to Indians resident on the reserve, including such matters as health, regulation of traffic, control of livestock, and management of fish, game and fur. Bands that have achieved an advanced stage of development may enact by-laws having to do with the raising, appropriation and expenditure of money.

While most Band councils are elected for a two-year term as provided in the Indian Act, some continue to adhere to appointment by tribal custom. All Bands however are given the opportunity to decide whether they wish to take advantage of the elective provisions of the Indian Act or to to adhere to tribal custom.

The Indian Affairs Branch takes a census of the Indian population under its jurisdiction at five-year intervals. The figures for the 1954 Census are given in Tables 31 and 32.

* Prepared in the Indian Affairs Branch, Department of Citizenship and Immigration, Ottawa.

31.—Indian Population classified by Age Group and Sex, by Province, Departmental Census 1954

| Province or Territory | Under 7 Years | | 7 Years and Under 16 | | 16 Years and Under 21 | | 21 Years and Under 65 | | 65 Years or Over | | Totals | |
|-----------------------|---------------|---------------|----------------------|---------------|-----------------------|--------------|-----------------------|---------------|------------------|--------------|---------------|---------------|
| | Male | | Male | | Male | | Male | | Male | | Male | |
| | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| P. E. Island..... | 21 | 19 | 30 | 31 | 13 | 16 | 67 | 58 | 10 | 7 | 141 | 131 |
| Nova Scotia..... | 310 | 308 | 326 | 311 | 181 | 185 | 642 | 608 | 74 | 57 | 1,533 | 1,469 |
| New Brunswick..... | 305 | 294 | 284 | 285 | 141 | 136 | 591 | 486 | 55 | 52 | 1,376 | 1,253 |
| Quebec..... | 1,784 | 1,743 | 1,833 | 1,853 | 931 | 967 | 4,014 | 3,478 | 499 | 472 | 9,061 | 8,513 |
| Ontario..... | 3,487 | 3,499 | 3,833 | 4,040 | 2,193 | 2,055 | 8,271 | 7,560 | 1,250 | 1,067 | 19,634 | 18,221 |
| Manitoba..... | 2,377 | 2,397 | 2,282 | 2,303 | 972 | 930 | 4,061 | 3,440 | 465 | 457 | 10,157 | 9,527 |
| Saskatchewan..... | 2,180 | 2,142 | 2,204 | 2,221 | 912 | 962 | 3,799 | 3,536 | 412 | 382 | 9,507 | 9,243 |
| Alberta..... | 1,912 | 1,996 | 1,809 | 1,864 | 794 | 788 | 3,090 | 2,805 | 346 | 311 | 7,951 | 7,764 |
| British Columbia..... | 3,614 | 3,587 | 3,534 | 3,642 | 1,488 | 1,494 | 6,581 | 5,652 | 780 | 714 | 15,997 | 15,089 |
| Yukon Territory..... | 144 | 170 | 176 | 190 | 81 | 78 | 327 | 310 | 49 | 43 | 777 | 791 |
| N.W.T..... | 442 | 400 | 420 | 404 | 179 | 175 | 932 | 835 | 119 | 117 | 2,092 | 1,931 |
| Totals..... | 16,576 | 16,555 | 16,731 | 17,144 | 7,885 | 7,786 | 32,375 | 28,768 | 4,059 | 3,679 | 77,626 | 73,932 |

32.—Religious Denominations of the Indian Population, Departmental Census 1954

| Province or Territory | Anglican | Baptist | United Church | Presbyterian | Roman Catholic | Other Christian Beliefs | Aboriginal Beliefs | Totals |
|----------------------------|---------------|--------------|---------------|--------------|----------------|-------------------------|--------------------|----------------|
| | No. | No. | No. | No. | No. | No. | No. | No. |
| Prince Edward Island..... | — | — | — | — | 272 | — | — | 272 |
| Nova Scotia..... | — | — | — | — | 3,002 | — | — | 3,002 |
| New Brunswick..... | — | — | — | — | 2,629 | — | — | 2,629 |
| Quebec..... | 3,383 | — | 425 | — | 13,482 | 141 | 143 | 17,574 |
| Ontario..... | 11,313 | 1,960 | 7,038 | 622 | 12,917 | 1,232 | 2,173 | 37,255 |
| Manitoba..... | 5,855 | 2 | 5,090 | 846 | 7,250 | 564 | 77 | 19,684 |
| Saskatchewan..... | 5,532 | 37 | 1,604 | 251 | 10,150 | 81 | 1,095 | 18,750 |
| Alberta..... | 2,037 | 143 | 1,917 | — | 11,225 | 127 | 266 | 15,715 |
| British Columbia..... | 6,025 | — | 6,310 | — | 17,959 | 792 | — | 31,086 |
| Yukon Territory..... | 1,165 | 84 | 1 | — | 314 | — | 4 | 1,568 |
| Northwest Territories..... | 711 | — | — | — | 3,310 | — | 2 | 4,023 |
| Totals..... | 36,021 | 2,226 | 22,385 | 1,719 | 82,510 | 2,937 | 3,760 | 151,558 |

Education.—The proportion of Indians who have become satisfactorily adjusted to modern conditions is of course greater among those who have taken full advantage of the Federal Government's educational program. Residential schools are available to Indian children from broken homes, orphans or those who, because of isolation or the nomadic way of life of their parents, would otherwise be unable to attend school. For children who can live at home the Federal Government operates day schools in Indian communities. Alternatively, where conditions are favourable, arrangements are made with local educational authorities for Indian children to attend non-Indian schools. An increasing number of Indian children in the elementary grades have been admitted to schools where other children are enrolled and the majority of Indian children attending secondary school and college classes are educated in association with non-Indians. The Federal Government pays the charges for school fees and books, necessary transportation and, for some students who must live away from home, part or all of the cost of room and board.

Similar assistance is given to Indian young people to encourage them to obtain vocational and professional training. Of those who have qualified as school teachers, 81 are now serving in Indian residential and day schools. Indians have qualified in medicine, dentistry, nursing, agriculture and other professions. Preference in appointment to positions in the Indian service is given to qualified Indians.

In the year ended Mar. 31, 1956, there were 476 Indian schools in operation comprising 66 residential schools, 368 regular day schools, 31 seasonal schools and 11 hospital schools. The enrolment in residential schools was 10,599 and in all other Indian schools 20,434. Enrolment by province was: Prince Edward Island, 38; Nova Scotia, 624; New Brunswick, 476; Quebec, 2,388; Ontario, 7,490; Manitoba, 4,581; Saskatchewan, 4,277; Alberta, 4,664; British Columbia, 6,188; and Yukon Territory, 307.

33.—Enrolment and Average Attendance at Indian Schools, Years Ended Mar. 31, 1947-56

| Year Ended Mar. 31— | Residential Schools | | Day Schools | | All Schools | | |
|---------------------------|---------------------|-----------------------|-------------|-----------------------|-------------|------------|----------------------|
| | Enrolment | Average Attendance | Enrolment | Average Attendance | Enrolment | Attendance | |
| | | | | | | No. | P.C. of Enrolment |
| | No. | No. | No. | No. | No. | | |
| 1947..... | 9,304 | 8,192 | 10,318 | 7,449 | 19,622 | 15,641 | 79.7 |
| 1948..... | 8,986 | 7,863 | 11,115 | 8,296 | 20,101 | 16,159 | 80.3 |
| 1949..... | 9,368 | 8,345 | 12,615 | 10,414 | 21,983 | 18,759 | 85.3 |
| 1950..... | 9,316 | 8,593 | 14,093 | 12,060 | 23,409 | 20,653 | 88.2 |
| 1951..... | 9,357 | 8,779 | 15,514 | 13,526 | 24,871 | 22,305 | 89.7 |
| 1952..... | 9,844 | 9,175 | 15,746 | 13,673 | 25,590 | 22,848 | 89.3 |
| 1953..... | 10,112 | 9,309 | 15,837 | 13,826 | 25,949 | 23,135 | 89.2 |
| 1954..... | 11,090 | 9,516 | 17,084 | 14,541 | 28,174 | 24,057 | 85.4 |
| 1955..... | 10,501 | 9,878 | 17,947 | 16,254 | 28,448 | 26,132 | 91.9 |
| 1956..... | 10,599 | 10,113 | 20,434 | 17,697 | 31,033 | 27,810 | 89.6 |

In addition to pupils in Indian schools there were 4,644 Indian children enrolled in elementary grades in provincial and private schools and 1,555 in secondary schools and in higher education courses, making a total enrolment of Indians in educational classes of 37,305. In the year ended Mar. 31, 1956, there were 2,210 Indians receiving secondary and higher education.

Welfare.—During 1956, 21,572 Indian families received \$4,098,643 in family allowances on behalf of 68,210 children. These payments contributed substantially to a better balanced diet and better clothing for Indian children. Approximately \$3,000,000 is paid annually to Indians in the form of blind persons' allowances, disabled persons' allowances, old age assistance and old age security payments. When necessary the Government provides direct relief assistance to Indians in the form of food, fuel, clothing and household equipment. The Indian Affairs Branch also makes arrangements for private foster-home and institutional placement of children, juvenile delinquents, cripples and unemployable and aged adults. Assistance is also provided for unmarried mothers and for the rehabilitation of disabled Indians. Increasing emphasis is being placed on the importance of the suitable placement of children requiring protection and upon the importance of preventive work in the field of juvenile delinquency.

The provision of special foods as a preventive measure against tuberculosis was continued. Apart from the humanitarian aspect, the policy has as its aim a reduction in the number of new cases.

Improvement in housing conditions has been achieved recently through the efforts of the Indians themselves as a result of expenditures from government appropriations, from Indian Band funds, and through Veterans' Land Act benefits. Costs of house repairs during the year ended Mar. 31, 1957, amounted to \$397,554 and the total expenditure on new houses built on the various reserves was \$2,007,330. Of these amounts the Indians, through Band funds, Veterans' Land Act grants and personal contributions, provided over 54 p.c. of the cost of repairs and 49 p.c. of the expenditure on new housing. Revolving Fund loans are available for the purchase of farm machinery, gas and oil, fencing materials, seed grain, livestock and similar essentials, and also for payment of wages or reserve employment projects. The total in the Revolving Fund was increased early in 1957 from \$350,000 to \$1,000,000 to meet the increased demand for loans.

Fur Conservation.—During the year 1956 the fur conservation program undertaken in co-operation with the various provinces was continued. Approximately 179,930 beaver pelts valued at \$2,049,382 were taken in Manitoba, Saskatchewan and Ontario. In addition about 3,674,561 muskrats valued at approximately \$3,474,886 were trapped in Ontario, Manitoba and Saskatchewan. Benefits accruing to Indians in the three provinces from the trapping of these fur bearers amounted to about \$3,314,560. In Quebec, nine fur preserves with a total area of approximately 150,000 sq. miles are set aside exclusively for Indian trapping under joint management by the Indian Affairs Branch and the Quebec Department of Fish and Game. The six areas in production during the 1956 season produced 21,500 beaver which brought nearly \$300,000 to the Indian trappers.

Eight full-time supervisors are employed across Canada to help the Indians derive the fullest possible benefits from hunting and trapping.

The Eskimos.*—The Eskimos are only a fragment of the total population of Canada numbering, according to the 1956 Census, approximately 11,000 persons. However, they are part of the human resources of the country and, as such, are entitled to the benefits of Canadian citizenship and to assistance in adapting themselves to changing conditions. They, together with the Indians, represent the original inhabitants of Canada and their ingenuity and resourcefulness are illustrated by their ability to maintain existence against a harsh unrelenting climate in a region where food, being almost entirely fish or animal, requires great skill to obtain and is most unpredictable in its availability. Greater penetration into the Arctic from the south, an unstable, precarious fur market, a decreasing game supply and an increasing population have combined to alter the long established patterns of Arctic life very rapidly. The translation of Canada's northernmost citizens from the Stone Age to the Hydrogen Age is accompanied by many problems.

The Northern Administration and Lands Branch of the Department of Northern Affairs and National Resources is responsible for the administration of Eskimo affairs. The Department of National Health and Welfare administers Eskimo health and medical services. Royal Canadian Mounted Police detachments throughout the north undertake field duties for both departments. In fact, the problems involved in looking after a sparse Eskimo population scattered over about 900,000 sq. miles of territory require the continuous co-operation of all northern inhabitants—teachers, missionaries, traders, doctors, nurses, administrators, radio operators and weather personnel. Administrative contact is maintained by radio and through the Central and Western Arctic and Eastern Arctic Patrols which carry representatives of the Administration and other government departments on an annual inspection tour. Officers of the Administration also make periodic visits by air.

Family allowances are paid to most Eskimos in kind from a list designed to supplement rather than supplant the normal native diet. Eskimos also enjoy the full benefits of old age security and assistance payments and of allowances for blind persons. Missions assisted by Federal Government grants operate hospitals at Aklavik, Chesterfield Inlet and Pangnirtung, and the Department of National Health and Welfare has nursing stations at Coppermine, Frobisher Bay, Lake Harbour, Cape Dorset, Hall Lake, Fort Chimo, Port Harrison and Great Whale River. Tuberculosis and other medical surveys are carried out from year to year and treatment where necessary is provided either at the hospitals within the territory or at larger institutions outside.

The Arctic Division of the Department of Northern Affairs and National Resources studies and deals with Eskimo problems. Many Eskimos have taken advantage of unprecedented opportunities for wage employment with mining companies, on the Mid-Canada and DEW radar lines, in transportation and communications, in government construction and with traders and missionaries. In many communities, the shift from the traditional trapping-hunting economy has been very sharp. While raising living standards, wage employment has added to the immediate problems of adjustment.

* Prepared in the Editorial and Information Division of the Department of Northern Affairs and National Resources, Ottawa.

Much of the activity of the Arctic Division is based upon guiding the Eskimos through this difficult period. Field staff is growing constantly. Northern Service Officers are now posted at Frobisher Bay, Cape Dorset, Fort Chimo, Great Whale River, Churchill, Baker Lake, Tuktoyaktuk and Cambridge Bay. Some are assigned to the DEW Line where they provide guidance and assistance to Eskimos newly taking up wage employment; others are assigned to very remote areas where the full impact of an industrial society has yet to be felt. Social workers have been appointed to help solve some of the social problems arising out of a new economy. Welfare services for Eskimos in the Arctic and in southern hospitals are being expanded.

At Frobisher Bay on southern Baffin Island, a Rehabilitation Centre comprising thirteen buildings has been completed. The houses include kitchen-dining rooms, bath house-laundries and workshops. The remainder will be occupied by former Eskimo patients who, for various reasons, are no longer able to support themselves on the land. By developing special skills, they will once again become productive members of society.

Projects, mainly on an experimental basis, are being carried out in order to expand and diversify the Eskimo economy. Handicrafts not only provide revenue but also a means of cultural self-expression. Reindeer herding in the Mackenzie Delta, animal husbandry at Fort Chimo, eiderdown collecting on Baffin Island and Ungava Bay, sealskin tanning, boat-building, and the manufacture of arctic clothing are a few of the undertakings. Eskimos in overpopulated or depleted areas are being encouraged and assisted to move to areas where game is more plentiful or where employment is to be found. A fund has been established from which loans may be made to assist Eskimos to carry out approved projects for the betterment of their economy.

Since 1945, the Government has built fourteen schools primarily for Eskimo children. They are at centres spreading from the Mackenzie Delta to northern Quebec. Missions assisted by government grants also operate schools in many Eskimo settlements. Vocational training courses for young Eskimos have been started in the south to help develop their mechanical aptitudes and to provide new opportunities for employment.

Section 18.—Statistics of World Population

World population figures given in Table 34 are from the United Nations *Population and Vital Statistics Reports* for January 1957 and, except as otherwise noted, are official mid-year estimates for 1955. The area figures are from the United Nations *Statistical Yearbook, 1956*.

Estimated Population of the World by Continents.—The statement below, published by the United Nations, presents estimates of the 1955 mid-year population by continental divisions. These continental totals are not always the sum of the estimates for individual countries given in Table 34 because, where considered necessary, adjustments have been made in order to arrive at the most reasonable estimates under existing circumstances. The world total must be regarded only as an approximate estimate, the data for Africa and Asia being subject to considerable error.

| | No. |
|--|----------------------|
| Africa..... | 223,000,000 |
| North America..... | 238,000,000 |
| South America..... | 124,000,000 |
| Asia (exclusive U.S.S.R.)..... | 1,482,000,000 |
| Europe (exclusive U.S.S.R.)..... | 410,000,000 |
| Oceania..... | 14,000,000 |
| Union of Soviet Socialist Republics..... | 200,000,000 |
| WORLD TOTAL..... | 2,691,000,000 |

34.—Areas and Populations of the Countries or Areas of the World 1955

| Continent and Country | Area | Population | Continent and Country | Area | Population |
|---|----------------------|---------------------|--|-----------------------|----------------------|
| | sq. miles | '000 | | sq. miles | '000 |
| Africa | | | Africa—concl. | | |
| Egypt..... | 386,101 ¹ | 22,934 | FORMER MANDATED TERRITORY (Union of South Africa) | | |
| Ethiopia and Eritrea, Federa- tion of..... | 457,287 | 20,000 ² | South West Africa ¹¹ | 318,099 | 458 |
| Liberia..... | 43,000 | 1,250 | | | |
| Libya..... | 679,360 | 1,105 | | | |
| Morocco— | | | America, North | | |
| Former French Zone..... | 150,888 | 8,495 ³ | Canada..... | 3,851,113 | 16,589 ² |
| Former Spanish Zone ⁴ | 7,589 | 1,045 | Costa Rica..... | 19,653 | 951 |
| Tangier..... | 135 | 183 | Cuba..... | 44,218 | 5,829 ^{2,3} |
| Sudan..... | 967,501 | — | Dominican Republic..... | 18,816 | 2,404 |
| Tunisia..... | 60,166 | 3,745 | El Salvador..... | 7,722 | 2,193 |
| Union of South Africa ⁵ | 472,359 | 13,669 | Guatemala..... | 42,042 | 3,258 |
| TERRITORIES AND DEPENDENCIES | | | Haiti..... | 10,714 | 3,305 |
| Belgium— | | | Honduras..... | 43,277 | 1,660 |
| Belgian Congo..... | 904,994 | 12,600 ⁶ | Mexico..... | 760,375 | 29,679 |
| France— | | | Nicaragua..... | 57,143 | 1,245 |
| Algeria..... | 846,126 | 9,620 | Panama..... | 28,753 | 910 |
| Comoro Islands..... | 838 | 170 ⁶ | United States of America..... | 3,022,389 | 165,271 ³ |
| French Equatorial Africa..... | 969,114 | 4,680 | | | |
| French Somaliland..... | 8,494 | 63 ⁶ | TERRITORIES AND DEPENDENCIES | | |
| French West Africa..... | 1,789,186 | 18,729 | Denmark— | | |
| Madagascar..... | 227,800 | 4,776 | Greenland..... | 840,001 ¹² | 26 |
| Réunion..... | 969 | 278 | France— | | |
| Portugal— | | | Guadeloupe and dependencies | 687 | 230 |
| Angola..... | 481,352 | 4,280 | Martinique..... | 425 | 240 |
| Cape Verde Islands..... | 1,557 | 172 | St. Pierre and Miquelon..... | 93 | 5 |
| Mozambique..... | 302,329 | 6,030 | | | |
| Portuguese Guinea..... | 13,948 | 541 | Netherlands— | | |
| São Tomé and Príncipe..... | 372 | 58 ⁶ | Netherlands Antilles..... | 371 | 189 ⁶ |
| Spain— | | | United Kingdom— | | |
| Possessions in North Africa.. | 829 | 143 | Bermuda..... | 20 | 41 |
| Spanish Guinea..... | 10,831 | 208 ⁶ | British Honduras..... | 8,867 | 79 ⁶ |
| Spanish West Africa ⁷ | 115,975 | 83 ⁶ | British West Indies— | | |
| United Kingdom— | | | Bahama Islands..... | 4,400 | 94 ⁶ |
| Basutoland..... | 11,716 | 627 | Barbados..... | 166 | 229 |
| Bechuanaland..... | 274,981 | 324 ⁶ | Jamaica and dependencies..... | 4,706 | 1,565 ⁶ |
| British Somaliland..... | 68,000 | 640 ⁶ | Leeward Islands..... | 422 | 128 ⁶ |
| Gambia ⁸ | 4,003 | 285 ⁶ | Trinidad and Tobago..... | 1,980 | 721 |
| Gold Coast (now Ghana)..... | 78,802 | 4,191 | Windward Islands..... | 826 | 309 ⁶ |
| Kenya ⁹ | 224,960 | 6,048 | United States— | | |
| Mauritius and dependencies..... | 809 | 566 | Alaska..... | 586,401 | 209 ⁶ |
| Nigeria, Federation of..... | 339,169 | 31,254 | Canal Zone..... | 553 | 53 ⁶ |
| Eastern Region..... | 29,484 | 7,500 | Puerto Rico..... | 3,435 | 2,263 ⁶ |
| Lagos (Federal Capital)..... | 27 | 300 | Virgin Islands (U.S.) ¹³ | 133 | 24 ⁶ |
| Northern Region..... | 264,282 | 17,080 | | | |
| Western Region..... | 45,376 | 6,374 | America, South | | |
| Rhodesia and Nyasaland, Federation of..... | 487,640 | 7,069 | Argentina..... | 1,072,748 | 19,111 |
| Northern Rhodesia..... | 288,130 | 2,130 | Bolivia..... | 424,163 | 3,198 |
| Nyasaland..... | 49,177 | 2,540 | Brazil..... | 3,287,204 | 58,456 ¹⁴ |
| Southern Rhodesia..... | 150,333 | 2,399 | Chile..... | 286,397 | 6,761 |
| St. Helena and dependencies..... | 119 | 5 | Colombia..... | 439,520 | 12,637 |
| Seychelles and dependencies..... | 156 | 39 | Ecuador..... | 104,506 ⁶ | 3,675 |
| Sierra Leone ⁹ | 27,925 | 2,050 ⁶ | Paraguay..... | 157,047 | 1,565 |
| Swaziland..... | 6,704 | 223 ⁶ | Peru..... | 482,259 | 9,396 |
| Uganda..... | 93,981 | 5,508 | Uruguay..... | 72,172 | 2,615 |
| Zanzibar and Pemba..... | 1,026 | 278 | Venezuela..... | 352,143 | 5,774 ¹⁴ |
| TRUST TERRITORIES | | | | | |
| Cameroons (Br. Adm.) ¹⁰ | 34,081 | 1,500 | TERRITORIES AND DEPENDENCIES | | |
| Cameroons (Fr. Adm.)..... | 166,796 | 3,146 | France— | | |
| Ruanda-Urundi (Belg. Adm.)..... | 20,916 | 4,280 ⁶ | French Guiana..... | 35,135 | 28 |
| Somaliland (Ital. Adm.)..... | 178,201 | 1,280 | | | |
| Tanganyika (Br. Adm.)..... | 362,688 | 8,324 | | | |
| Togoland (Br. Adm.)..... | 13,041 | 429 | | | |
| Togoland (Fr. Adm.)..... | 22,008 | 1,080 | | | |

For footnotes, see end of table, p. 153.

34.—Areas and Populations of the Countries or Areas of the World 1955—continued

| Continent and Country | Area | Population | Continent and Country | Area | Population |
|---|----------------------|-----------------------|-------------------------------------|----------------------|------------------------------------|
| | sq. miles | '000 | | sq. miles | '000 |
| America, South—concl. | | | Asia—concl. | | |
| TERRITORIES AND DEPENDENCIES—concl. | | | FORMER MANDATED TERRITORY | | |
| Netherlands— | | | United Kingdom— | | |
| Surinam..... | 55,144 | 225 ^a , 15 | Palestine..... | 10,459 | 1,912 ² |
| | | | Gaza Strip..... | 78 | 325 |
| United Kingdom— | | | MILITARY GOVERNMENT | | |
| British Guiana..... | 83,000 | 485 | United States— | | |
| Falkland Islands, excluding dependencies..... | 4,618 | 2 ⁶ | Bonin Islands..... | 40 | - - |
| | | | Ryukyu Islands..... | 848 | 798 |
| Asia | | | Europe | | |
| Afghanistan..... | 250,966 ^a | 12,000 ² | Albania..... | 11,100 | 1,394 |
| Bahrain..... | 231 | 120 | Andorra..... | 175 | 6 ^a |
| Bhutan..... | 19,305 ^a | 623 | Austria..... | 32,374 | 6,974 ² |
| Burma..... | 261,757 | 19,434 | Belgium..... | 11,779 | 8,868 ² |
| Cambodia..... | 67,568 | 4,358 | Bulgaria..... | 42,796 | 7,548 |
| Ceylon..... | 25,332 | 8,589 | Czechoslovakia..... | 49,351 | 13,089 |
| China..... | 3,745,306 | 582,603 ² | Denmark..... | 16,578 | 4,439 ² |
| Taiwan ¹⁶ | 13,885 | 8,907 | Faeroe Islands..... | 540 | 34 ² |
| India..... | 1,269,645 | 381,690 | Finland..... | 130,120 | 4,241 |
| Indonesia..... | 575,894 | 81,900 | France (Metropolitan)..... | 212,822 | 43,274 |
| Iran..... | 629,345 | 21,794 | Germany— | | |
| Iraq..... | 171,612 | 5,200 | East Germany..... | 41,490 | 16,700 ² , ^a |
| Israel..... | 7,984 | 1,748 | West Germany..... | 94,733 | 49,995 ² |
| Japan..... | 142,785 ² | 89,100 ² | Saar..... | 991 | 992 ² |
| Jordan ¹⁷ | 37,301 | 1,427 | East Berlin..... | 155 | 1,300 ² , ^a |
| Korea ¹⁸ | 85,248 | 28,000 ² | West Berlin..... | 186 | 2,195 ² |
| Kuwait..... | 6,000 | 203 ² | Greece..... | 51,182 | 7,973 |
| Laos..... | 91,506 | 1,425 | Hungary..... | 35,919 | 9,805 |
| Lebanon..... | 4,015 | 1,425 ¹⁹ | Iceland..... | 39,768 | 158 ² |
| Maldiv Islands..... | 115 | 89 ² | Ireland..... | 27,136 | 2,909 |
| Mongolian People's Republic..... | 591,121 | 1,000 | Italy..... | 116,304 | 48,016 |
| Muscat and Oman..... | 82,000 | 550 | Liechtenstein..... | 61 | 15 |
| Nepal..... | 54,345 | 8,432 ² | Luxembourg..... | 998 | 309 ² |
| Pakistan..... | 364,797 | 82,439 | Monaco..... | 0.4 | 20 ² |
| Philippines..... | 115,600 | 21,849 | Netherlands..... | 12,529 ²⁰ | 10,751 ² |
| Qatar..... | 8,500 | 35 | Norway..... | 125,065 | 3,425 ² |
| Saudi Arabia..... | 617,762 | 7,000 ² | Poland..... | 120,348 | 27,278 |
| Syria..... | 70,014 | 3,856 | Portugal ²¹ | 35,599 | 8,765 |
| Thailand..... | 198,456 | 20,302 | Romania..... | 91,700 | 17,490 ² |
| Trucial Oman..... | 32,278 | 80 | San Marino..... | 24 ⁶ | 13 ² |
| Turkey (in Asia and Europe)..... | 299,993 | 24,122 | Spain ²² | 194,396 | 28,976 |
| Vietnam..... | 127,259 | 26,300 | Sweden..... | 173,622 | 7,262 ² |
| Yemen..... | 75,290 | 4,500 ² | Switzerland..... | 15,941 | 4,977 ² |
| TERRITORIES AND DEPENDENCIES | | | United Kingdom— | | |
| Netherlands— | | | England and Wales..... | 58,345 | 44,441 |
| West New Guinea..... | 159,375 | 700 | Northern Ireland..... | 5,459 | 1,394 |
| Portugal— | | | Scotland..... | 30,411 | 5,133 |
| Macau..... | 6 | 200 ² | Vatican..... | - - | 1 ⁶ |
| Portuguese India..... | 1,619 | 644 | Yugoslavia..... | 98,608 | 17,628 |
| Portuguese Timor..... | 5,763 | 469 | TERRITORIES AND DEPENDENCIES | | |
| United Kingdom— | | | Norway— | | |
| Aden— | | | Svalbard and Jan Mayen Is. . | 24,101 | 12, ²³ |
| Aden Colony..... | 80 | 140 | United Kingdom— | | |
| Aden Protectorate..... | 112,000 | 650 ² | Channel Islands..... | 75 | 102 |
| Brunei..... | 2,226 | 56 ² | Gibraltar..... | 2 | 25 |
| Cyprus..... | 3,572 | 520 | Isle of Man..... | 227 | 56 |
| Hong Kong..... | 391 | 2,340 | Malta and Gozo..... | 122 | 314 |
| Malaya, Federation of..... | 50,690 | 6,058 | | | |
| North Borneo..... | 29,387 | 370 ² | | | |
| Sarawak..... | 47,071 | 614 | | | |
| Singapore..... | 286 | 1,213 | | | |

For footnotes, see end of table, p. 153.

34.—Areas and Populations of the Countries or Areas of the World 1955—concluded

| Continent and Country | Area | Population | Continent and Country | Area | Population |
|--|-----------|------------------|--|----------------------|----------------------|
| | sq. miles | '000 | | sq. miles | '000 |
| Oceania | | | Oceania—concl. | | |
| Australia (excluding aborigines) | 2,974,583 | 9,201 | TERRITORIES AND DEPENDENCIES—concl. | | |
| New Zealand..... | 103,564 | 2,136 | United States— | | |
| TERRITORIES AND DEPENDENCIES | | | American Samoa..... | 76 | 223. ⁶ |
| Australia— | | | Guam..... | 206 | 373. ⁶ |
| Cocos (Keeling) Islands..... | 5 | 1 | Hawaii..... | 6,423 | 560 ⁶ |
| Norfolk Island..... | 14 | 1 | TRUST TERRITORIES | | |
| Papua..... | 90,540 | 446 | Nauru (Aust. Adm.) ²⁴ | 8 | 4 |
| France— | | | New Guinea (Aust. Adm.).... | 93,000 ²⁰ | 1,254 |
| French Oceania..... | 1,544 | 69 ⁶ | Pacific Islands (U.S. Adm.)... | 687 | 64 |
| New Caledonia and depend- encies..... | 7,202 | 65 | Western Samoa (N.Z. Adm.).. | 1,130 | 97 |
| New Zealand— | | | CONDOMINIUM | | |
| Cook Islands..... | 100 | 16 | New Hebrides (Anglo-French) | 5,700 | 54 ⁶ |
| Niue..... | 100 | 5 | | | |
| Tokelau Islands..... | 4 | 2 | Union of Soviet Socialist Republics | | |
| United Kingdom— | | | Union of Soviet Socialist Re- publics ²⁵ | 8,649,821 | 200,200 ² |
| British Solomon Islands..... | 11,500 | 103 ⁶ | | | |
| Fiji Islands..... | 7,040 | 339 | | | |
| Gilbert and Ellice Islands... | 369 | 40 ⁶ | | | |
| Pitcairn..... | 2 | -- | | | |
| Tonga..... | 269 | 54 ⁶ | | | |

¹ Inhabited and cultivated territory: 13,442 sq. miles. ² Latest official estimate. ³ *De jure* population. ⁴ Northern Zone only. ⁵ Excludes Walvis Bay. ⁶ Unofficial estimate. ⁷ Includes Southern Zone of former Spanish Morocco. ⁸ Includes population of Mafeking, the capital, which is located in the Union of South Africa. ⁹ Colony and Protectorate. ¹⁰ Administratively part of Federation of Nigeria. ¹¹ Includes Walvis Bay. ¹² Area of ice-free portion is 131,931 sq. miles. ¹³ Comprises St. Croix, St. John and St. Thomas. ¹⁴ Excludes Indian jungle population. ¹⁵ Excludes Indian and Negro population of the interior. ¹⁶ Comprises islands of Taiwan and Pescadores. ¹⁷ Includes West Jordan. ¹⁸ Includes Democratic People's Republic of Korea and the Republic of Korea. ¹⁹ Lebanese nationals only. ²⁰ Land area only. ²¹ Includes the Azores and Madeira Islands. ²² Includes the Balearic and Canary Islands. ²³ Inhabited only during winter season. ²⁴ Held jointly by Australia, New Zealand and United Kingdom. Administered by Australia. ²⁵ Present territory which includes Tannu-Tuva, Southern Sakhalin and the Kurile Islands, the remainder of former Lithuania and former parts of Germany.

CHAPTER IV.—IMMIGRATION AND CITIZENSHIP

CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing .1 of this volume.

PART I.—IMMIGRATION AND EMIGRATION

The standard material appearing in each Year Book under the heading of "Immigration Policy and Administration" is superseded in this edition by a special article which deals in detail with the history of immigration and the Immigration Act and Regulations.

DEVELOPMENTS IN CANADIAN IMMIGRATION*

The process of settlement in what is now Canada has been slow and discontinuous, its cyclical pattern formed by geographical factors and no less by internal and external political and economic circumstances which created periods of desire for and availability of settlers and immigrants.

Canada has four clearly defined east-west geographical regions, separated by topographical barriers and distinguished with respect to soil, forest cover, elevation, climate, resources and natural lines of transportation and communication. In the history of settlement, people did not move easily from one region to another but it is significant that, with the development of water and land transportation facilities, settlement eventually took place from east to west in defiance of the logic of geography.

These four regions are extensions northward of the far deeper regions that dominate the topography of the United States. They engendered similar processes of settlement, similar economic activities and life in both countries, though the peoples inhabiting them developed separate national existences. Such geographic and economic similarity, however, assisted a relatively free exchange of people across the political boundary.

The relative difficulty that Canada has encountered in attracting and holding both immigrant and native-born people may also be explained by considering the settlement of Canada and of the United States not as parallel but as integral processes. What is

* Contributed by the Department of Citizenship and Immigration.

now Canadian territory has lain on the periphery of a vast settlement area, the shifting centres of which are and have been to the south and have inevitably attracted and, to a lesser extent, continue to attract peoples from the periphery. The major migration from each country has been to the other.

IMMIGRATION TO CANADA

SETTLEMENT AND IMMIGRATION

Occupation of what is now Canadian territory had an uncertain start in the oldest British colony and the youngest province of Canada—Newfoundland—which was claimed by Britain in 1583. Permanent settlement, however, was long deferred. The foundations of Canadian population were laid by people French in origin and language, who today constitute over 30 p.c. of the population. They are unique in that they have been an indigenous, self-perpetuating society for more than 200 years. Their immigrant basis is estimated to have been no more than 10,000 settlers who arrived during the 150 years preceding the British conquest (1763). At that time the French population numbered about 65,000 from whom the present population of 4,628,378 (Census 1956), not to mention those who emigrated to the United States, is largely descended.

Most important in point of numbers and second in point of time, among the sources of Canada's population, have been immigrants of British Isles origin coming either directly from overseas or entering from the United States after one or more generations of settlement there.

The cession of Acadia (1713) to Great Britain was followed in 1749 by the establishment of Halifax as a military base, and the first British effort at colonization. Along with people from England came some 2,500 migrants from Germany who settled at Lunenburg. The way for larger settlement, however, was not finally cleared until the expulsion of the Acadians in 1755, the final capture of Louisburg in 1758 and the fall of Quebec in 1759. Soon after, thousands of new settlers came chiefly from the New England States, the first of the interregional movements which have been characteristic of the population relations of Canada and the United States.

On the eve of the Revolution of the Thirteen Colonies (1776), the population of what is now Canada was about 110,000 to which was soon added over 40,000 persons—disbanded troops, refugees and Loyalists who sought new lands and homes in the remaining British colonies to the north. Nova Scotia gained 22,000 and Cape Breton 400, New Brunswick, established as a separate colony in 1784, received 14,000, Prince Edward Island 600, Lower Canada 3,000 and Upper Canada 10,000. From 1783 to 1812 migration into the British colonies continued with the 'late Loyalists' gradually shading off into a migration of pioneer American farmers who came in the traditional search for new and better lands. Among these were German Mennonites from Pennsylvania who settled on the Grand River in what is now Waterloo County in Ontario. Another successful settlement was that of Colonel Thomas Talbot who had been given a grant of land on Lake Erie in 1803. Actual settlement there began in 1809 with an influx of farmers from Pennsylvania, New Jersey, the Maritime Colonies and from the British Isles. Talbot Road was long one of the great roads through the province which attracted other settlers in quest of land.

Until 1815 migration from the British Isles remained small and was made up mainly of Scottish Highlanders many of whom came in groups such as the one led by Lord Selkirk which settled on Prince Edward Island in 1803. And between 1802 and 1828 some 25,000 Highlanders settled on Cape Breton Island which remains Highland Scottish to this day.

After the Napoleonic Wars a large migration set in from the British Isles to the North American Continent. Up to 1840 about 500,000 persons left for Canada and 420,000 for the United States; the peak year of departure for Canada was 1832 when immigrants numbered 66,000. But from 1834 until 1910 the annual British immigration destined to the United States always exceeded that to Canada. For instance, between 1846 and 1854, 1,750,000 persons left the British Isles for the United States and not quite 500,000 for Canada. These migrants were mainly from Ireland which was then suffering an extensive famine.

From 1670 to 1869 the territories that are now the Provinces of Manitoba, Saskatchewan and Alberta were governed by the Hudson's Bay Company and, except for the Scottish colony established in 1811 at Selkirk on the Red River, no attempt was made at settlement during that time. In 1869, two years after the British North America Act had united the Provinces of Ontario, Quebec, Nova Scotia and New Brunswick to form the nucleus of what is now Canada, these territories were acquired from the Company by the Canadian Government. Under the Homestead Act of 1872 and the Dominion Land Act of 1874 free, quarter-section homesteads were made available for which any head of family or adult person might acquire patent after three years subject to certain conditions of tillage. For a time, transportation difficulties and the attraction of the more prosperous United States diverted many of the arriving immigrants. The easier and therefore more popular route to the Canadian mid-west lay by rail through the United States by way of Chicago and St. Paul or by water to Duluth and then by rail to the Red River and from there by boat or stage to Fort Garry. But the completion of a railroad from Minneapolis and St. Paul to Winnipeg in 1878 was a step towards the solution of this transportation difficulty and the number of settlers mounted steadily.

Even though between the years 1874 and 1879 the first major settlements were established south of Winnipeg by some 7,000 German-speaking Mennonites from southern Russia who were accustomed to the steppe, and by a group of Icelanders who settled near Lake Winnipeg and in southern Manitoba, the immigration of this period was largely of people from Eastern Canada whose agricultural background was of farms won from timbered lands. Following the construction of the Canadian Pacific Railway which reached Winnipeg in 1882, development became more pronounced. Large-scale projects, assisted settlement, and religious enterprises brought thousands of settlers from the British Isles and Continental Europe. By 1891 the population of Manitoba and the North West Territories, which had been 118,706 in 1881, had reached 251,473, of whom only 11,150 were in what later became Saskatchewan.

Meanwhile in 1871 the colony of British Columbia had entered Confederation with a population of about 10,500. Until 1858, when the colony was created, the Hudson's Bay posts were the only evidence of the white man's presence west of the Canadian Rockies. The discovery of gold on the Fraser River and later in the Cariboo Creeks brought the first shifting wave of settlers of many different races from the United States and some overland from Eastern Canada. When the flow of gold slackened in 1865 and 1866 and Vancouver Island became united with the mainland, a fairly permanent nucleus had formed made up mainly of Americans but including also a 'solid' British group of Hudson's Bay Company officials as well as a Canadian-born element. It was during the subsequent road and railway building period that the first Chinese immigrants appeared in British Columbia, the beginning of the Asiatic element which later became a factor in that population. The Canadian Pacific Railway was completed to Vancouver in 1885, overcoming for the settler the great barrier of the Rocky Mountains.

The early 1890's in Western Canada was a period of stagnation and despair and immigration all but ceased. But when the Hon. Clifford Sifton became Minister of the Interior in 1896 he initiated a vigorous promotion of immigration and changes in economic conditions helped to ensure the success of the new policy. A long depression and decline in wheat prices was reversed after 1893 and general recovery of world markets brought increasing demands for wheat. In "Manitoba No. 1 Hard" the Canadian West had developed a wheat strain adapted to the conditions of growth in the western prairies and later developments of other famous strains helped to extend the areas of cultivation. The new immigration policy aimed especially at persuading American settlers to come to Canada. People from the United States had begun to drift in for some years as the more fertile lands in the Western States and free lands were becoming scarce. Their numbers increased rapidly as did migration to the West from the older Canadian provinces. Although agriculturists from Great Britain were also encouraged to come to Canada, from 1899 to 1903 Continental European entries were about double the British. This period saw the introduction of the first major change in the ethnic composition of the Canadian population since 1763. Beginning in 1895 several thousand east-Europeans arrived each year settling in southern Saskatchewan and Manitoba. They were part of the 'new' immigration to North America from Austria, Poland, Russia, Hungary, the Balkans and Italy in contrast to the 'old' immigration which had been largely from northern and western Europe.

From 1905, when the Provinces of Saskatchewan and Alberta were formed, to the beginning of World War I there was a period of great prosperity in Western Canada and, from all sources, Canada received the largest immigration in its history. The peak year was 1913 when 400,870 immigrants arrived, 150,000 of them from Great Britain, 140,000 from the United States and the remainder from Continental Europe. The amount of land granted in homesteads and pre-emptions on the prairies doubled from 1905 to 1911. Railways and roads were extended, farms bought, towns built, capital invested and the demand for labour and goods was high. The frontier moved every day.

The break in the flow of immigration from Britain caused by the War lasted until 1920 and from Continental Europe until 1921. However, during this period economic development and colonization continued rapidly because of the tremendous demand for wheat and many American settlers came to locate on the plains. The depression of 1920-23 brought the first recession of settlement, but when conditions improved the Peace River District and northern areas of the Prairie Provinces became the main targets of the land-hungry farmers' sons from the prairies as well as of new immigrants. Immigration reached a new peak between 1926 and 1929, although not the proportions of the prewar years. According to the census, about 20 p.c. of the newcomers to Canada between 1921 and 1931 settled in the cities and most of the remainder in rural Western Canada.

With the onset of the depression of the 1930's, immigration was almost totally arrested. During 1931-40 only 158,562 immigrants arrived compared with 1,230,202 in the preceding ten years. It is difficult to say to what extent this decline was caused by depressed conditions prevailing in Canada and elsewhere and to what extent it was caused by restrictive regulations, though the restrictions on immigration were, of course, imposed as a result of the depression.

Since the end of World War II, and especially during the period 1948-57, immigration increased markedly when it became evident that Canadian industry had accomplished the transition to a peacetime economy without serious dislocation and that a new postwar era of economic expansion was at hand. Canada's remarkable postwar economic growth,

based upon the accelerated development of mineral, forest and water power resources and the ancillary services of roads, railways, pipelines and townsites involved in a succession of huge projects—many in previously untapped hinterlands—provided the political and economic climate for a sustained wave of immigration mainly from the British Isles and Continental Europe that totalled 1,387,176 for the period 1946 to 1956 and will easily surpass 1,500,000 by the close of 1957. Some analysis of immigration during recent postwar years will be found in the statistical section immediately following this article.

IMMIGRATION AND POPULATION GROWTH

Along with the contribution of immigrants to the settlement of Canadian territory, immigration also has been associated with the peak periods of growth of the Canadian population. These peaks in turn have been related to certain important events in history—Frontenac's term of office, the American Revolution, the Irish famine, the first building of the railways, the colonization of the West, and finally to the industrialization and the opening of the hinterland of the Canadian Shield. Before 1869 immigration and the peaks of population growth it effected were incidental to the historical events noted. Since the turn of the century the growth of the population by immigration has been the result of government policies and of economic conditions occasioning them. The following statement gives the numerical and percentage growth of the population of Canada from 1851 to 1956. The percentage column indicates the cyclical character of this growth.

NUMERICAL AND PERCENTAGE INCREASE IN THE POPULATION, TEN-YEAR PERIODS
1851-1951 AND 1951-56

| Period Ended— | Population | Increase | | Period Ended— | Population | Increase | |
|------------------|------------|----------|------|-------------------------|-------------------------|------------------------|-------------------|
| | | No. | p.c. | | | No. | p.c. |
| 1851..... | 2,436,297 | ... | ... | 1911..... | 7,206,643 | 1,835,328 | 34.2 |
| 1861..... | 3,229,633 | 793,336 | 32.6 | 1921..... | 8,787,949 | 1,581,306 | 21.9 |
| 1871..... | 3,689,257 | 459,624 | 14.2 | 1931..... | 10,376,786 | 1,588,837 | 18.1 |
| 1881..... | 4,324,810 | 635,553 | 17.2 | 1941..... | 11,506,655 | 1,129,869 | 10.9 |
| 1891..... | 4,833,239 | 508,429 | 11.8 | 1951..... | 14,009,429 ¹ | 2,502,774 ¹ | 21.8 ¹ |
| 1901..... | 5,371,315 | 538,076 | 11.1 | 1956 ² | 16,080,791 | 2,071,362 | 14.8 |

¹ Newfoundland included in the total for 1951 but not for 1941; without Newfoundland the increase was 2,141,358 or 18.6 p.c.

² Includes Newfoundland.

EMIGRATION FROM CANADA

In considering the impetus to growth which Canada received from immigration, it must be noted that, compared with the United States, Canada has held relatively weak attraction for settlers for long periods. The preference of migrants for the United States pre-dates the emergence of Canada as a separate political entity, and many factors combined to form this preference. Climate and topography favoured the southern areas, as did the more advanced economic conditions in the United States. The pull of kinship and ethnic ties drew the migrants to settle near friends or relatives or near people from similar regions or countries of origin. The United States offered the prospective settler more favourable conditions of land purchase and tenure. With a more diversified economy it also offered more to the unskilled labourer who did not wish to be a farmer. The early extensive development of roads and navigation offered increasing economic opportunities.

In 1791 the United States had a population of 4,000,000 while the British colonies had about 220,000. As a group the British colonies had little economic or political integration, being divided in language and purpose and cut off from one another by geographical barriers. The territories west of Lake Ontario were unsettled and were left to the fur traders and the Indians. A small and scattered population had no prospect of economic self-sufficiency.

In 1839 Lord Durham contrasted conditions on both sides of the line. "By describing one side", he said, "and reversing the picture the other would also be described. On the American side all is activity and bustle On the British side of the line . . . all seems waste and desolate" * Thousands of arrivals as they gained familiarity with conditions left again for the United States. Lord Durham placed the figure at 60 p.c.

From 1851 onward there are more exact measures of these out movements and their relation to population growth. Table 2 shows that while many immigrants continued to come to Canada between 1861 and 1901, a good number of them re-emigrated. It appears also that the natural increase of the Canadian population was partly offset by emigration of native-born.

Many reasons have been offered to account for this outflow. The Canadian Shield which extends throughout northern Ontario continued to be a barrier in Canada to the westward movement so characteristic of American settlement. The growth of industry was much inhibited by the small domestic market and the dominance of Great Britain in this area. The railway and land booms in the United States drew settlers westward from every part of the United States as well as from Canada and especially from Ontario. French-Canadians, who had begun to leave even before 1850, migrated in increasing numbers after 1873 for the textile mills in the New England States. New arrivals from overseas caught the prevailing spirit and joined the trek to that country. The industrial development of the eastern States, made possible by the western expansion, created a heavy demand for general labourers as well as for those with technical skills.

This earlier emigration was primarily in response to the attraction of new and cheap lands, but the movement of more recent times has been primarily urban. Even before 1914 various types of skilled and professional persons had begun to leave. Canadian railroadmen, engineers, artisans, nurses, teachers, clergymen, writers, doctors and actors had been locating in the United States and were being actively recruited by American employers.

World War I created special demands for labour. After the War the imposition of quotas on immigration by the United States cut the supply of immigrant labour on which American industry had come to depend but these restrictions did not apply to Canadians. During 1921-31 Canadians made up the largest group of immigrants into the United States from all sources, representing nearly one-quarter of the total. This trend was sharply reversed during 1931-41 when, it is estimated, there was a considerable excess of Canadians returning to Canada over the numbers who left for the United States. †

In the United States Census of 1950 the Canadian-born were the second largest group of foreign-born, constituting about 10 p.c. of their number. As for occupational distribution in 1950, both male and female Canadian immigrants to the United States were more fully represented in the professional, managerial and craftsmen groups than the United States labour force as a whole.

* Sir Charles Lucas, *Lord Durham's Report* (Oxford 1912), Vol. 2, p. 212.

† According to an estimate based on the United States Census, there was a net loss of 123,000 among the Canadian-born residing in the United States during the 1931-41 decade. Nathan Keyfitz, *The Growth of Canadian Population Studies*, Vol. IV, No. 1, June 1950, p. 60.

On the basis of the Census of Canada data, the balance of migration is summarized in the following statement.

POPULATION BALANCE SHEET, 1851-1956

| Period | Births | Deaths | Immigration | Emigration (Residual) | Net Immigration | Population at End of Decade |
|------------------------------|--------|------------------|-------------|--------------------------|--------------------|-----------------------------------|
| | '000 | '000 | '000 | '000 | '000 | '000 |
| 1851..... | ... | ... | ... | ... | ... | 2,436 |
| 1851-1861..... | 1,281 | 611 | 209 | 85 | +124 | 3,230 |
| 1861-1871..... | 1,369 | 718 | 187 | 379 | -192 | 3,689 |
| 1871-1881..... | 1,477 | 754 | 353 | 440 | -87 | 4,325 |
| 1881-1891..... | 1,538 | 824 | 903 | 1,109 | -206 | 4,833 |
| 1891-1901..... | 1,546 | 828 | 326 | 506 | -180 | 5,371 |
| 1901-1911..... | 1,931 | 811 | 1,759 | 1,043 | +716 | 7,207 |
| 1911-1921..... | 2,338 | 988 ¹ | 1,612 | 1,381 | +231 | 8,788 |
| 1921-1931..... | 2,415 | 1,055 | 1,203 | 974 | +229 | 10,377 |
| 1931-1941..... | 2,294 | 1,072 | 150 | 242 | -92 | 11,507 |
| 1941-1951..... | 3,186 | 1,214 | 548 | 379 | +169 | 13,643 ² |
| 1951-1956 ³ | 2,106 | 633 | 783 | 184 | +599 | 16,081 |

¹ Excludes extra mortality associated with World War I, estimated at 120,000, which became a province of Canada in 1949 and had a population of 361,416 in 1951.

² Excludes Newfoundland

³ Includes Newfoundland.

This apparently unfavourable balance of migration has given rise to a number of interpretations. Some students have thought that both immigrants and the Canadian-born migrants represented an 'overflow' and conversely that the numbers Canada has retained comprise its 'absorptive capacity', an idea which, superficially at least, verges on the tautological. Distinctions have been made between the movement of immigrants and Canadian-born, suggesting that the former displaced the latter and that, if there had been no emigration of the Canadian-born, natural increase without immigration would have been sufficient to give Canada the population it now has. Others have held that, given the opportunity to emigrate, the Canadian population would have been even smaller if it had not been for immigration.

The value of such studies is limited at least partly by certain unstated assumptions, by the scarcity of data, and because they involve the difficult theory that Canada's absorptive capacity is basically independent of that of the United States. It is suggested rather that the long processes of the settlement and economic development of the North American Continent must be considered as a whole and that political boundaries more often than not have had only secondary influence. Population movements into and within the areas of North America then are integral and not separate aspects of the distribution and re-distribution of people geographically and occupationally, in accord with the 'push' and 'pull' factors operating at any time in the whole or in its parts.*

In the aggregate, emigration and re-emigration from Canada have involved the movement of several million people, spread unevenly over a hundred years and more. The size of these movements and the fact that they have continued, might alone raise doubts that they could ever be explained by sole reference to conditions existing in Canada. It has been maintained† that "since 1851 Canada brought in several millions of immigrants

* Brinley Thomas, *Migration and Economic Growth* (Cambridge University Press, 1954), pp. 134-138. For an early formulation of such a thesis see *Annex to the Report of the Minister of Agriculture for 1880*, Apr. 14, 1890, in *State Papers, Emigration to Canada*.

† Herbert Marshall, testifying before the Standing Committee on Immigration and Labour, *Proceedings of the Standing Committee on Immigration and Labour*, May 14, 1947, p. 217. The Senate of Canada.

more than could be absorbed. This was a costly and confusing procedure but more serious maladjustments were prevented by the fact that there was an open door into the United States which acted as a safety valve to draw off the surplus."

In order to account for the emigration of Canadian-born a complementary logic has suggested that immigrants had displaced them,* although this theory shows little appreciation of at least the regional interrelationship of labour markets of the two countries. It has been suggested also that more consideration be given to the 'intention component' in migration. "One may wonder if suitable account has been taken of the destination of the immigrant; whether he will settle here or is *en route* to some other country after a longer or shorter period in Canada. This is an intrinsic difficulty arising out of the intention component of any definition of an immigrant that does not provide for a follow-up."†

This component in the main has been observable only in its results and its character is necessarily elusive if it is taken to involve more than what in retrospect appears to have been a misstatement of destination on the part of several million immigrants. It suggests, perhaps, that if in relation to immigration, consideration were given to the area of Canada alone, it would become as difficult to understand why millions should have moved into Canada as it is to understand emigration out of Canada by sole reference to conditions there, unless the target of the vast overseas migrations was in the first place "America", that is, the North American Continent.

It has been said respecting earlier migration that "it is the merest accident that millions of inhabitants of North America are living in their particular locality, for the considerations that led their ancestors to Virginia, Upper Canada, or the shores of the Missouri were frequently unbelievably trivial. A ship sailing on the day they reached the seaport, the destination of a chance acquaintance, or the suggestion of a propagandist led thousands to embark for New York, Quebec or New Orleans, while others *after their arrival* settled the matter whether they were to be Americans or Canadians, canal labourers, Kansas squatters, prairie farmers, or lumbermen in the wilds of New Brunswick or Minnesota."‡

It seems evident from the record that as immigrants developed a more marked sense of direction (after 1850 perhaps), British North America and Canada increasingly came to be seen in an ancillary or peripheral relation to the developing civilization of the United States. The concept 'Canada' has been of slow growth and this country's increasing emergence as an individualized and final destination began mainly at the turn of the century. However, immigration to America has had the force of a powerful myth which immigration to Canada, until very recently perhaps, has never had.

From this point of view the hundreds of thousands of immigrants who gave their destination as Canada were in effect giving Canada as their first destination in North America. This may seem a re-statement of the obvious. It seems to mean, however, that the number of immigrant entries and the number that left again do not necessarily constitute objective data for interpretations of absorptive capacity.

It may be noted finally that the intention component eventually must be explicable in terms of the individual immigrants. While the chance elements determining destination, referred to earlier, were evidently reduced as migration developed, mobility remains as a basic competitive asset of immigrants. The first aim of the immigrant always must be

* A. R. M. Lower, *From Colony to Nation* (Toronto, 1953), pp. 488-490.

† Nathan Keyfitz, *ibid.*, p. 47.

‡ Edwin C. Guillet, *The Great Migration* (New York, 1937), p. 204.

to make a living, wherever this might lead. As long as there are places where he may do so on more favourable terms than where he happens to be and, if the place is accessible, a little travel makes no difference. The new environment is a means to an end and means little to him. Most immigrants must find their own passage and make their own decision to migrate. A shorter or longer stay, even under normally difficult beginnings in Canada, mobilizes immigrants once more to seek what they might consider more favourable conditions in the United States. The history of planned colonization schemes and assisted passage schemes has, with some outstanding exceptions, been largely one of failures since the objectives of the individual migrants are usually at variance with the objectives of the organizer.

Immigrants to Canada, therefore, may for some time be undecided whether "to become a population". In the past it would seem that the decision has led many of them to the United States.

THE EMIGRATION OF CANADIAN-BORN

As previously noted, some students have held that Canadian emigrants to the United States were being displaced by immigrants, though this view has seemed to rest on mere assertion without specific documentation. It is also often said that the Canadian-born, as would any people living next door to another country whose standard of living is rising faster than its own, were bound to be drawn to the United States, especially in the absence of any restriction on movement. Whether a higher standard of living or higher salaries and wages are adequate explanations is questionable, since Canadian emigrants tend to go to cities where the cost of living is also higher than at home. It is held rather that Canada as a little-populated but relatively prosperous country with good educational institutions has not always been able to absorb the skills and energies it creates, and therefore has not been able to offer enough of the higher paid positions which the emigrants have sought in the United States.

It appears that Canadians may actually have prepared themselves for emigration. In a study made of six groups of university graduates of the period 1920-36, three groups showed an absolute increase in number—doctors, clergymen and engineers. Graduates in these groups were generally in demand also in the United States. The other three—"lawyers unfamiliar with American law, dentists confronting the home of modern dental science, and pharmacists facing a profession unnaturally inflated by Prohibition"—declined in number.

If the concept 'Canada' has been slow to assert itself against 'America' in the minds of overseas migrants, the Canadian-born on the other hand who left for the United States did not migrate to a 'foreign' country. He seems to have behaved rather like other North Americans. Historically, the emigrant going to the American Colonies before 1776 might be going to the Maritimes, Newfoundland, or what are now the American Atlantic States and continue to move between these areas. After the American Revolution, movement from British North America technically became emigration. While political conditions, of course, have not been without effect the evidence is abundant that both Americans and Canadians, until the most recent times, have tended to ignore the boundary when it stood in the way of their individual purposes. Their growing nationalisms have lacked the reinforcements of profound differences in history, ethos and language which exist elsewhere, and the open border has been evidence of their inconclusive character quite as much as it is symptomatic of the profound interrelationship of the labour markets of the two countries. The numerical imbalance of the exchange of population which has favoured the United States is, from this point perhaps, relatively unimportant. However, as Canada in its growth is beginning to match the powerful pull exerted by American industry,

* Marcus Lee Hansen, *The Mingling of the Canadian and American People* (Yale University Press, 1941), p. 262. Cf. DBS, *Supply and Demand in the Professions in Canada*.

educational institutions, diversified social life and standards, this migration may be reduced although perhaps never permanently arrested. Some might not even consider this desirable. Whatever the combination of causes may be, from 1930 to 1950 there was a decline in the emigration of Canadian-born. The largest number of Canadian-born ever recorded in the United States Census was 1,278,512 in 1930 (not including Newfoundland). In 1940 it had declined to 1,044,119, and in 1950 to 994,562. From 1950 to July 1, 1955, however, the number of Canadian immigrants was between 130,000 and 140,000, bringing the total Canadian-born population in the United States once more to over a million, after allowing for deaths and emigration since 1950.

The decline in emigration becomes more meaningful when the emigrants are taken as a percentage of the growing Canadian population. The number of Canadian-born in the United States as a percentage of the number of Canadian-born in Canada had reached its maximum at the beginning of the present century when the figure was 25 p.c. In 1930 it was 15.8 p.c. and in 1950 it was only 8.3 p.c.

In summary of the period 1941-51, the natural increase in the population amounted to 1,972,394 or 92.1 p.c. of the 2,141,358 population increase in Canada (not including Newfoundland). The balance amounting to 168,964 represents the estimated excess of immigration over emigration for this period. Actual immigration between the 1941-51 Censuses was 547,882. Hence apparent emigration from Canada to other countries over this decade was 378,918. It is not possible to determine exactly how many of these emigrants were Canadian-born and how many were of immigrant origin. The following statement gives an indication of the relative proportions of native-born and non-Canadian-born among the emigrants at the Census dates 1941 and 1951.

The statement shows the difference between the expected and actual population at the 1951 Census of Canadian-born, British Isles-born and United States-born. The amount of the total difference who were Canadian-born was 229,272 or 60 p.c. It would seem, then, that emigration for the decade 1941-51 was composed of about three-fifths Canadian-born and two-fifths non-Canadian-born persons.

ESTIMATED PROPORTIONS OF CANADIAN-BORN AND NON-CANADIAN-BORN
AMONG EMIGRANTS, JUNE 1, 1941 TO JUNE 1, 1951¹

| Item | Birthplace | | | | Total |
|--|------------|----------------------|---------------|-----------------|------------|
| | Canada | British Isles | United States | Other Countries | |
| | No. | No. | No. | No. | No. |
| Census..... 1941 | 9,487,808 | 960,125 | 312,473 | 746,249 | 11,506,655 |
| Immigration..... 1941-51 | ... | 194,343 | 53,257 | 300,282 | 547,882 |
| Births..... 1941-51 | 3,186,405 | ... | ... | ... | 3,186,405 |
| Deaths..... 1941-51 | 897,155 | 166,319 | 36,421 | 114,116 | 1,214,011 |
| Estimated population..... 1951 | 11,777,058 | 988,149 | 329,309 | 932,415 | 14,026,931 |
| Census..... 1951 | 11,547,786 | 910,432 ² | 281,035 | 908,760 | 13,648,013 |
| Difference between estimated population and 1951 Census figures..... | 229,272 | 77,717 | 48,274 | 23,655 | 378,918 |
| | p.c. | p.c. | p.c. | p.c. | p.c. |
| Estimated emigration..... | 60.6 | 20.5 | 12.7 | 6.2 | 100.0 |

¹ Latest figures available since birthplaces were not recorded at Census of 1956.
reporting Republic of Ireland as birthplace.

² Includes 24,015 persons

ABSORPTIVE CAPACITY

Enough has been said, perhaps, to suggest that net immigration has been no clear index of Canada's absorptive capacity and that the development of immigration could scarcely be based on some of the interpretations offered of past experience.

In 1947 it became evident that the transition in Canada from a wartime to a peacetime economy was taking place without any serious dislocation. It also became evident that the expansion might be sustained if the financial resources could be matched by labour power and a large population increase. In this, two trends had to be taken into account—the decline over several decades of the rate of natural increase and the historic problem of emigration. Also a relatively short-term problem had to be met by specific measures. The unusually low birth rate during the depression years had created a shortage of persons in the age groups entering the labour market during the latter part of 1941-51 decade. Immigration was therefore encouraged to relieve both the short-term problem and serve long-range objectives. The continuing expansion of the economy continues to absorb large numbers of newcomers who have not only made up for the lack of Canadian workers but have utilized the opportunities offered by the Canadian economy through capital they have brought with them, through the application of special skills and trade processes and through their mobility. By the establishment of new businesses, and the introduction of improved and new processes, they have created additional consumer demands and products.

By the end of 1954, over 1,000,000 people had entered Canada since 1947. In addition, the native-born children of these immigrants in the same period are estimated at some 200,000. This represents a very substantial addition to the body of Canadian consumers and an advance toward the development of mass markets for goods and services. It is also noteworthy that the bulk of immigrants is concentrated in the taxpaying and heavy consuming age groups, a factor that will help to reduce the high overhead costs of maintaining the Canadian standard of living at its present level.

It is in such considerations that operating principles of fitting immigration to absorptive capacity may be found rather than in theories which aim at some final figure of how many might be absorbed or have been absorbed in the past.

Along with the need for compromising between the short-term and long-term objectives of immigration, the implementation of the immigration policy has had to be adapted to such considerations as the availability of transportation, the availability of suitable immigrants who are usually the desirable citizens in their home countries, the degree of tolerance of other countries to being considered a recruiting ground for immigrants to Canada, the decline of both 'push' and 'pull' forces because of the gradual improvement in economic and social conditions in most western countries, the willingness or otherwise of the Canadian people to accept some or all types of immigrants, and many other similar factors.

GROWTH OF IMMIGRATION LEGISLATION

Canada passed her first Immigration Act in 1869 (32-33 Vict., c. 10), two years after Confederation. Principles embodied in this and in succeeding Immigration Acts are in large part deeply rooted in the earlier experience with immigration. The next comprehensive legislation was the Act of 1910 (9-10 Edw. VII, c. 27) which, with amendments, was in force until it was superseded by the present Immigration Act (R.S.C. 1952, c. 325). In tracing some of the additions and changes that led to the Act and Regulations at present in force, it should be kept in mind that throughout the years the motives of migrants, requirements of the receiving country, problems of control, health, welfare, assimilability, protection of the immigrants and of the native community have remained fundamentally unchanged.

EARLY CONTROL MEASURES

There was at first no legislation of any kind to govern the entrance of people into what is now Canada. The earliest measures had their origin in the conditions of ocean transportation.* While of considerable interest to the struggling colonies, this was a problem chiefly for the Imperial Government. Meanwhile the failure to control shipping gave rise

* Stanley C. Johnson, *A History of Emigration* (London 1913), Chap. V.

to quarantine and related measures at the receiving ports of Halifax, Quebec, Saint John and Montreal. The usually destitute condition of the arriving immigrants, related to the continuing frightful conditions of shipping and to the general poverty of those who were forced to migrate from the British Isles, also prompted local regulations.

Until the 1820's the British Government was officially opposed to emigration, though military considerations resulted in some Canadian settlements. When the outlook changed, emigration was seen rather as an alleviation for misery, unemployment and pauperism at home than as a means of advancing the interests of the colonies. The colonies, on the other hand, welcomed the fit and intelligent for whom there was no lack of employment. But there were increasing protests against the unloading of the destitute, the paupers and the unfit who were variously assisted to leave for Canada and the United States because they were a burden at home. The early adoption by several American States of protective measures resulted in thousands of the latter being diverted to Canadian ports. In 1831-32 at least 20,000 arrived.*

It is evident that the floods of newcomers even under the best of conditions would have created problems for those who preceded them. The receiving situation was worsened by the effects of the horrifying conditions of travel of that time. Before the middle of the 19th century, voyages were arduous and dangerous and long journeys were difficult and expensive. In the 17th century a trip from France to Canada took about two months, and as many as 40 to 50 p.c. of the passengers died during the voyage. Around the middle of the 19th century the average passage took about a month and a half and deaths at sea were still commonplace. Ships were few, small, crowded and lacked sanitary facilities and were known as "floating coffins".

Preparations for immigrant reception and distribution were inadequate. The port cities and districts were often overcrowded and their resources drained in caring for and protecting themselves against the newcomers. Lower Canada, Nova Scotia and New Brunswick naturally bore the chief burden though Upper Canada, more remote and especially in need of labour, did not always agree with the protest of the lower provinces.

During the season of immigration the threat of smallpox, typhus, cholera and other diseases hung continually over Canadian ports. Demands for regulation gained special force with the repeal of the Passenger Vessels Act in 1827. It was soon evident that the ship owners were unable to govern themselves. In the summer of the year crowds of newcomers reached Halifax, Quebec and Montreal starving, diseased and dying. Disease spread and 800 of a population of 11,000 died in Halifax alone. New Brunswick fared little better. While a new Imperial Statute was passed to govern transport, Nova Scotia decided on a law of its own. An Act in 1828 provided that no passenger could be landed until the master of the vessel had entered a bond of £10 for every person who within a year became a public charge "by reason of disease, bodily infirmity, age, childhood or indigence".† Penalties were provided for evasions. Continued protests led to legislation by Nova Scotia, New Brunswick and Lower Canada a few years later, imposing a head tax on every immigrant, the funds to be used for the care of the sick and destitute coming off the ships and for forwarding them to their destinations. A need for such funds arose almost immediately when Asiatic cholera broke out in Britain and was carried with tragic results to the colonies in 1832. Thus the state of health of arriving immigrants generally and epidemics in particular clearly showed the necessity of quarantine and hospital quarters as being inseparable from immigration. Makeshift hospitals and pest-houses were established and the temporary facilities of 1831 at Grosse Île below Quebec were made permanent and were not superseded until about seventy years later. Despite various legislation passed by the British Government there was little improvement. It was undoubtedly the Irish who suffered most. In 1847 out of 90,000 immigrants embarking for Canada in British vessels, 15,000 died on the way.

* Norman Macdonald, *Canada 1763-1841* (New York, 1939), p. 24.

† J. S. Martell, *Immigration to and Emigration from Nova Scotia 1815-1838* (Halifax, N.S., 1942), pp. 22-23.

The period before 1850 also marked the beginning of an immigration service. In 1827 the Colonial Office appointed a Chief Agent at Quebec. A description of his duties and activities gives the substance of certain activities and services rendered directly and indirectly today by officers of the Department of Citizenship and Immigration. The agent was "to receive emigrants on landing, give out landing money, if any, clothe and feed the starving, hear complaints and bring proceedings against defaulting shipmasters, keep in touch with those needing employment, help the newcomers to find their friends and tranship them to their destination, and have all carefully recorded. He exceeded his official duties by compiling valuable information regarding available locations, state of roads, distances and expenses. He invited land owners to register their saleable property with him. His office became an indispensable clearing house for distressed and anxious strangers, and saved them from being exposed to the gross misrepresentations of land jobbers" The agent also instituted information bureaux along the routes to the West to advise intending colonists and to afford shelter to the sick while travelling. Pamphlets on settlement were also published.

Until 1869 the head tax authorized in 1831 and the provisions for quarantine remained the main protective measures. The amount of the tax varied frequently but the principle was retained and appears in the Immigration Act of 1869.

At Confederation in 1867 the Federal Government assumed responsibility for the inspection and quarantine establishments of the provinces, for immigration agents and other measures developed up to that time.

THE PROTECTION OF IMMIGRANTS

While the amelioration of transport conditions was necessarily a matter for the great shipping nations, Canadian immigration legislation has always embodied provisions against some major abuses, which British and American legislation also aimed to control. As early as 1802-3 a British Parliamentary Committee sat to inquire into the transport trade and showed the need for immediate legislation. The Passenger Vessels Act of 1803 (43 Geo. III, c. 56) initiated a struggle with the ship owners and diverse other interests which was to last more than half a century and left conditions little better than they had been in the beginning. The abuses which successive inquiries revealed and successive Acts attempted to control became once more the concern of a Royal Commission in 1851. It was found that, along with the deadly overcrowding of ships, the emigrant had become a general object of exploitation. At the point of embarkation he was set upon by 'crimps', a sort of specialist in defrauding emigrants and familiar with every device for extorting money. Tickets were sold for non-existent ships or such as had sailed already. Emigrants were sold useless gear or passage tickets at exorbitant prices. Crimps offered also to change their money, 'dollaring' their victims, or enticed them to confederate boarding houses where more of their funds would be taken from them and where they were sometimes directly robbed. At sea exploitation continued. Rations were doctored or were insufficient in quantity, money was extorted for necessities, uncooked food supplied to exact money for use of cooking fires; in addition, bullying and physical maltreatment were not uncommon. Few dared to complain and the law was slow. Often ships dumped their passengers at wrong ports, hundreds of miles from their destination or on deserted beaches. On landing, the 'new world' version of crimps, porters and runners would begin the process of exploitation all over again.

While transport to Canada had not been given any special study since *Lord Durham's Report*, sufficient was known of specific abuses to make provisions for the protection of immigrants at Canadian ports. Although shipping conditions were improving as steamships superseded sailing vessels by providing a third class or steerage type of accommodation, there was a constant incentive to utilize the maximum of ship space at the expense of passenger welfare. The Immigration Act of 1869 established the number of passengers

* Norman Macdonald, *ibid*, p. 21.

a ship might carry as one adult per 12 feet of clear superficial deck available for passenger use (later changed to 15 feet) and not occupied by stores or other goods, or one person per two tons of capacity. An adult was defined as a person over 14 years of age, or two persons over one year but under 14 years. These provisions have remained standard to the present day.

No passenger was to debark until a passenger list supplied by the master of the vessel had been checked and the ship inspected by quarantine officers. The passenger list was to include the names of heads of families and the number of persons accompanying them, occupation, country of origin and destination; also the names and similar details for all single persons.

The Act also provided for payment of a head tax of \$1.00 or \$1.50 according to whether the person had left with or without the approval of the authorities at the port of embarkation. The Act provided that immigration officers might spend sums of money for food, clothing, transportation and for other assistance to intending settlers. Immigrants were permitted to remain on board ship with their baggage for 48 hours after arrival (later changed to 24 hours) until they could continue their journey or find accommodation, and their baggage was to be unloaded free of charge and at a reasonable hour of the day. Masters of vessels were required to give a detailed report of any immigrant dying *en route* to Canada and to account for the personal effects of the deceased. For the further protection of immigrants, penalties were set out for the master and crew of vessels who in their dealings with immigrants violated the laws of the country in which their home port was situated or were otherwise found guilty of a breach of the contract with their passengers. Only specially licensed persons were permitted to solicit the business of immigrants and inns and boarding houses which received immigrants were obliged to post a list of prices to be charged. A lien was not permitted on the effects of an immigrant for a debt for board and lodgings for any sum exceeding five dollars.

The measures of 1869 aiming at protection of immigrants were elaborated from time to time and new ones added, among them provisions for the protection of women immigrants aboard ship and for the control of the sale of intoxicating liquors to incoming steerage passengers.

OBLIGATIONS OF TRANSPORTATION COMPANIES

Traditionally, shipowners, shipping companies and railway companies have been among those most interested in the promotion of immigration and the recruitment of immigrants. Earlier, when the activities of the agents of such companies were uncontrolled they were not always conducive to the welfare of the immigrants or of the receiving country. Having regard for the fact that for a long time there were few effective restrictions on the movement of people and also that in more recent times, before and immediately after World War I, some companies engaged in promotion and recruitment under official arrangements, it is evident that rigid conditions and obligations should have been imposed to assure that the immigrants brought to Canada be found acceptable and in conformity with the laws, regulations and requirements. Failing this, responsibility for their return was made to devolve almost entirely upon the transportation companies who brought them.

It was only with the assumption of major responsibility for the promotion of immigration, of recruitment, selection and processing of immigrants by the Government of Canada that the liabilities of the transportation companies have been reduced.

RESTRICTIONS ON ENTRY

The Act of 1869 foreshadowed those restrictions on entry which have developed into the prohibited classes of today. It was required that the passenger list show whether the ship carried any person who was insane, idiot, deaf-mute, blind or infirm and whether accompanied by parents or relatives able to support him. If any such person were likely

to become a public charge the Collector of Customs might exact a bond of \$300 from the master of the ship to reimburse the country for any expenses on his behalf incurred during the following three years.

The most significant innovation was, perhaps, the prohibition of the landing of indigents or paupers unless the master of the ship deposited funds sufficient for the temporary assistance and travel to destination of such immigrant. This provision was not applied until 1879-80, but it contained the principle of exclusion.

Succeeding Acts and Regulations in 1886, 1902, 1905, 1906, 1907, 1908, 1909 and 1910 extended both the protective and restrictive provisions. Among the more significant developments may be mentioned the requirement of a sum of money as a condition of entry as distinct from head taxes, and in the passage in 1891 (implemented in 1900) of an Order in Council permitting the prohibition of all pauper immigration. An Act of 1905 made it a punishable offence to circulate, in a country outside Canada, false representations intended to encourage or prevent immigration into Canada. Prohibited classes were elaborated in several categories, chiefly medical, in the Act of 1906 and in the Act of 1910 and remain substantially the same today. In 1906 also the immigration of foreigners under contract to perform labour in Canada was prohibited.

RESTRICTIONS RELATING TO ASSIMILABILITY

What was probably the first Canadian expression of concern regarding the assimilability of immigrants was the protest of the Nova Scotia Assembly in 1815 addressed to the British Government against bringing in additional negroes from Bermuda. It was stated that "the proportion of Africans already in this country is productive of many inconveniences; and (that) the introduction of more must tend to the discouragement of white labourers and servants, as well as to the establishment of a separate and marked class of people, unfitted by nature to this climate, or to an association with the rest of His Majesty's Colonists".*

It may be of interest also that the first examination of immigrants on political grounds was applied not to overseas migrants but to Americans. In 1794, after the American Revolution, Commissioners were appointed and given discretionary powers to examine at the border and reject those who seemed unlikely to become loyal and suitable settlers.

When during the latter part of the 19th century the racial and ethnic composition of immigration began to change, doubts developed regarding the assimilability of certain newcomers and the economic and social consequences that might result from too drastic a change in the character of the Canadian people. Chinese immigrants arrived in British Columbia in the 1870's and from 1885 onward they were made subject to increasingly heavy head taxes until 1927 when, with the passage of the Chinese Immigration Act, they were virtually excluded. Japanese immigration began in 1896, chiefly to British Columbia, and was made subject to a series of 'gentlemen's agreements' from 1908 onward which restricted the number of such immigrants until an agreement in 1928 limited entry to 150 yearly. A few thousand East-Indians arrived during the first decade of this century and they too were made subject to head taxes. Their near exclusion was finally effected by an Order in Council under the Act of 1910 which provided that any immigrant who came to Canada otherwise than by a continuous journey from the country of which he was a native or citizen might be excluded. An Order in Council in 1919 created a general excluded class of immigrants deemed undesirable because of climatic, industrial, social, educational, labour or other conditions or requirements of Canada or deemed undesirable because of their customs, habits, modes of life and methods of holding property and their probable inability to become readily assimilated. Since 1923 the restriction on negroes has been effected by limiting the term "British subject" to Commonwealth countries with predominantly white populations. Restrictions on the entry of non-white British subjects has been a difficult problem since it was thought to involve the rights of British subjects to move freely from one part of the Commonwealth to another.

* J. S. Martell, *ibid.*

The Chinese Immigration Act was repealed in 1947 and certain other restrictions lifted. In 1951 special agreements were reached with the Commonwealth countries of India, Pakistan and Ceylon respecting the entry of their nationals. Conditions governing the admission of non-Europeans are given at pp. 172-173.

Before World War I the most important criterion of selection applied to those who did not fall into prohibited categories was their suitability as farmers. After the War, while this still remained important, selection was exercised also according to whether applicants for entry belonged to "preferred" or "non-preferred" countries. Traditional affinities with the United Kingdom and the United States naturally favoured immigrants from these countries. Citizens of France were added later to this category.* Next in order of preference came immigrants from northern and western Europe who were not too different in language and mode of life, followed by those from central and eastern Europe and by those of southern Europe including Greece, Italy, Syria and Turkey. Jews, regardless of citizenship, were treated separately.† These groupings may be compared with the currently admissible classes (p. 172).

After World War I fundamental changes were introduced also in methods of recruitment and in regulative measures. Canada took somewhat longer to recover from the War than the United States and until 1923 immigrants other than those going to assured farm work or domestic service were required to have stated sums of money. The immigration from 1923 onward was governed chiefly by two Orders in Council of Jan. 1, 1923: one established the passport and visa qualification as a condition of entry for other than British and American citizens; the other rescinded the earlier money requirement and provided that *bona fide* agriculturalists with funds, farm workers with reasonable assurance of employment, domestics, the wives and children under 18 years of age of Canadian residents and sponsored relatives might be admitted. Generally admissible, provided they had sufficient means until they could find employment, were United States citizens and British subjects within the meaning of the Act. None of these provisions applied to persons of Asiatic race.

One feature of the immigration policy of the 1920's was the promotion of British immigration under the Empire Settlement Act, which was passed by the British Parliament on May 31, 1922. Until 1931 some 130,000 persons came to Canada under various agreements under this Act though indirectly the Act also promoted unassisted immigration which by far outnumbered the assisted. Among other reasons, its relative lack of success was perhaps the fact that it aimed at land settlement at a time when Canada was becoming an industrial nation.

Under a series of agreements from 1925 onward, the recruitment and forwarding of immigrants from the "non-preferred" central, east, south and southeast European countries was given to the Canadian railways. The railways appointed Certificate Issuing Officers who examined potential immigrants at internal points and, if found suitable as agriculturalists, issued certificates to this effect with assurance of employment on arrival in Canada. Since the Government reserved the right to deny admission at the port of entry on grounds of health, morals and other provision of the Immigration Act, the railway officers also had to assure themselves regarding validity of passports of the immigrants, their literacy, physical and mental fitness and their general eligibility under the Act. The role of the Canadian railways in the promotion of immigration and in the settlement of the West has been far-reaching and outstanding.

With the onset of the world depression of the 1930's, several increasingly restrictive Orders in Council were passed. An Order of Aug. 7, 1929, prohibited the landing in Canada of any immigrant coming under contract or agreement, express or implied, to perform labour or service of any kind in Canada. This regulation, however, did not apply to farmers, farm labourers or houseworkers or to any contract labourer whose service was considered required in Canada. Then, in August 1930, immigration from Europe was

* P.C. 4186, Sept. 16, 1948 as amended by P.C. 5593, Dec. 10, 1948.

† H. F. Angus, "Need for an Immigration Policy" *The Annals of the American Academy of Political and Social Science*, Sept. 1947.

suspended except for practical farmers with sufficient capital to establish and maintain themselves on farms in Canada, and for wives and children under 18 years of age of family heads already established in this country. No change was made in the regulations applicable to immigrants from the British Isles or the United States, but solicitation of immigrants was generally discontinued.

THE IMMIGRATION ACT AND REGULATIONS

The division of powers agreed upon under the British North America Act of 1867 assigned to the Federal Government those matters which affect the country as a whole and to the provincial governments matters affecting the provinces themselves. Thus the Federal Government may pass laws respecting immigration into any or all the provinces while the provinces may pass laws affecting immigration into their jurisdictions, provided that such statutes do not conflict with the federal laws. In practice regulation of immigration has been left to the Federal Government.

The two federal statutes which at present govern immigration into Canada are the Department of Citizenship and Immigration Act (R.S.C. 1952, c. 67) and the Immigration Act (R.S.C. 1952, c. 325). The former provides that the Minister of Citizenship and Immigration through his department shall be responsible for all matters of federal jurisdiction with respect to immigration, unless any specific matter has been assigned by law to another department for administration purposes. The Immigration Act of 1952 replaces the earlier Act which had become unwieldy because of accumulated amendments. Changes were required also because of new conditions such as travel by air.

The Immigration Act sets out the terms and conditions under which any person, whether citizens, persons with domicile, immigrants or non-immigrants, may enter Canada; and, having entered, the circumstances in which persons other than citizens may be required to leave the country.

The Act accords no right to anyone to enter Canada as an immigrant. Categories of persons specifically prohibited from entering are clearly stated. The conditions under which others may be admitted are defined. While the Act provides for selection it is not primarily restrictive. Neither the Act itself nor the Regulations set any limits on the numbers which may be admitted. Similarly, the Act itself does not set numbers or quotas for any particular race, nationality or occupation. In the Regulations, however, certain preferences are indicated as to countries from which immigrants are most desirable and some entry provisions, otherwise applicable, are modified to facilitate the entry of such immigrants. This preference acts somewhat as a group test. The Regulations variously limit categories admissible from other groups of countries. Also agreements have been reached with certain Commonwealth countries whereby entry is limited to a specific number per year of their citizens, in addition to certain classes of close relatives of Canadian citizens. This has somewhat the effect of a quota.

All immigration into Canada is organized, that is, all immigrants are selected and the necessary machinery is provided for examination of immigrants abroad and for their reception on arrival.

The Act and the Regulations seek to extend certain protection to immigrants before they arrive in providing against fraudulent representations about conditions in Canada, protection *en route* and on arrival, as well as protection for those whose rejection or deportation may be considered or has been ordered.

The most important feature of the Act is its flexibility. While the Statute sets out classes prohibited from entering regardless of nationality, origin, occupation, the actual flow of immigration and classes of persons admissible are regulated under authority of Order in Council. Canada recognizes immigration as a means to an end. Changing conditions and emergencies relating to immigration may thus be met quickly by changes in regulations.

The Act is thus primarily an instrument for carrying out a policy. It follows that the policy actually stated and pursued by the government of the day is of first importance in determining the flow of immigration.

IMMIGRATION POLICY

The main outline of the policy which has been followed since the resumption of immigration after World War II was stated by the then Prime Minister, the Rt. Hon. W. L. Mackenzie King in a debate of the House of Commons on May 1, 1947. That statement in summary affirmed Canada's need for population and the intention of the government to attain a larger population through a program of immigration. Regarding long-term objectives it was stated that "apart from all else, in a world of shrinking distances and international insecurity, we cannot ignore the danger that lies in a small population holding so great a heritage as ours". Along with strategic considerations a larger population would help also to develop the country's resources and by providing a larger number of consumers would reduce the dependence on foreign trade. Respecting numbers of immigrants it was of the utmost importance to relate immigration to absorptive capacity, a factor that would vary from year to year in response to economic conditions. Regarding selection of immigrants the statement stressed that "Canada is perfectly within her rights in selecting the persons whom we regard as desirable future citizens. It is not a fundamental right of any alien to enter Canada." As to the sources of immigration: "There will, I am sure, be general agreement with the view that the people of Canada do not wish, as a result of mass immigration, to make any fundamental alteration in the character of our population. Large-scale immigration from the Orient would change the fundamental composition of the Canadian population", and "would, moreover, be certain to give rise to social and economic problems of a character that might lead to serious difficulties in the field of international relations".

IMPORTANT PROVISIONS OF THE IMMIGRATION ACT

The important provisions of the Act are now considered in greater detail. Sect. 20 to 31 of the Act provide for examination, inquiries and appeals respecting the status of immigrants under Sect. 5 of the Act which defines prohibited classes, and their status with respect to Sect. 61 of the Act and the regulations made under it which define admissible classes and conditions of entry.

Prohibited Classes.—Persons who are prohibited permanent entry include mental defectives and the mentally ill or those with a history of such illness, epileptics, persons afflicted with tuberculosis, trachoma, or any contagious diseases, immigrants who are dumb, blind or otherwise physically impaired. The entry of persons in some of these categories may be permitted if they have sufficient means of support or are taken care of by family members so as not to become public charges.

Also excluded are persons who have been convicted of any crime involving "moral turpitude" though age at conviction, time elapsed since and evidence of successful rehabilitation may be taken into consideration. Barred are prostitutes, homosexuals, pimps or, generally, persons seeking entry for immoral purposes, professional beggars and vagrants, persons who are public charges or are judged likely to become such, alcoholics, drug addicts, or persons who have trafficked in drugs, within the meaning of the Opium and Narcotic Drug Act, or are likely to do so. Prohibited entry are persons deemed likely to advocate the overthrow of the system of government by force or subversion, persons who are or have been associated with any subversive organization, spies, saboteurs, persons found guilty of high treason or conspiracy and in general persons who fail to comply with entry regulations.

Sect. 61 of the Act provides authority whereby the categories and qualifications required of persons seeking admission to Canada may be controlled. *Inter alia*, the Governor in Council may make regulations respecting medical and other examinations or tests and the prohibiting or limiting of the entry of those unable to pass them, respecting the terms and conditions of admission of persons who have received assistance to come to Canada,

respecting conditions and requirements as to passports or other documents and the possession of means of support. Furthermore, under Sect. 61 the Governor in Council is given the power to limit or prohibit the entry of immigrants for any or all of the following reasons:—

- “(g) (i) nationality, citizenship, ethnic group, occupation, class or geographical area of origin,
- (ii) peculiar customs, habits, modes of life or methods of holding property,
- (iii) unsuitability having regard to the climatic, economic, social, industrial, educational, labour, health or other conditions or requirements existing, temporarily or otherwise, in Canada or in the area or country from or through which such persons come to Canada, or
- (iv) probable inability to become readily assimilated or to assume the duties and responsibilities of Canadian citizenship within a reasonable time after their admission.”

Current Regulations.—The Immigration Regulations made pursuant to Sect. 61 of the present Act became effective June 1, 1953, by Order in Council P.C. 1953-859. As amended by P.C. 1956-785, May 24, 1956, they provide for the admission of immigrants as follows:—

- “(a) a person who is a British subject by birth or by naturalization in the United Kingdom, Australia, New Zealand, or the Union of South Africa, a citizen of Ireland, a citizen of France born or naturalized in France or in St. Pierre and Miquelon Islands, or a citizen of the United States of America if such person has sufficient means to maintain himself in Canada until he has secured employment therein;
- (b) a person who is a citizen by birth or by naturalization of Austria, Belgium, Denmark, the Federal Republic of Germany, Finland, Greece, Iceland, Italy, Luxembourg, The Netherlands, Norway, Portugal, Spain, Sweden or Switzerland or who is a refugee from a country of Europe, if such person undertakes to come to Canada for placement under the auspices of the Department or, if the Department has given its approval thereto, for establishment in a business, trade or profession or in agriculture;
- (c) a person who is a citizen by birth or by naturalization of Egypt, Israel, Lebanon, Turkey, or of any country of Europe or of a country of North America, Central America or South America if such person is the husband, wife, son, daughter, brother, sister, as well as the husband or wife and the unmarried children under 21 years of age of any such son, daughter, brother or sister, as the case may be, the father, the mother, the grandparent, the unmarried orphan nephew or niece under 21 years of age, the fiancé or fiancée, of a Canadian citizen or of a person legally admitted to Canada for permanent residence who is residing in Canada and who has applied for any such person and is in a position to receive and care for any such person; or
- (d) a person who is a citizen of a country other than a country referred to in paragraphs (a), (b) or (c) or in section 21, if such person is the husband, the wife or the unmarried child under 21 years of age, the father where he is over 65 years of age, or the mother where she is over 60 years of age, of a Canadian citizen residing in Canada who has applied for and is in a position to receive and care for any such person, but no such child shall be landed in Canada unless his father or his mother, as the case may be, is landed in Canada concurrently with him.

21. The Government of Canada having entered into an agreement with the Government of India, the Government of Pakistan and the Government of Ceylon with respect to the admission to Canada of 300*, 100 and 50 persons annually from such countries, respectively, the landing in Canada of persons from any such country is, notwithstanding section 20, limited accordingly to such numbers of persons, respectively, and in addition to the husband, the wife, or the unmarried child under 21 years of age, the father where he is over 65 years of age or the mother where she is over 60 years of age, of a Canadian citizen residing in Canada who has applied for and is in a position to receive and care for such person.”

It may be noted that any reference to Asians has been dropped. Their entry is governed under (d) above. It may be noted also that the provisions under Sect. 61 (g) of the Immigration Act quoted earlier, are no longer included in the Regulations, though it may be considered that their intent is expressed in the preferences and categories of persons admissible from different countries.

Examinations and Conditions of Entry.—Under Sect. 20 of the Act the admissibility of any immigrant is determined at the port of entry though a person may have undergone medical and civil examination by Canadian immigration officers abroad. Sect. 19 of the Regulations provides that the passing of any test or medical examination outside of Canada, or the issue of a visa or of a medical certificate, or of a letter of pre-examination has no conclusive value in actually determining admission at the port of entry.

* Effective May 6, 1957.

A system of pre-examination abroad has been in operation for many years and serves several purposes. It helps to eliminate those who are evidently unable to meet entry requirements before they embark and thus avoids the hardship that would result from rejection at the Canadian port. It makes possible more adequate selection, better regulation of the flow of immigrants in the light of seasonal and other variations in employment conditions and of course facilitates rapid processing of immigrants at Canadian ports.

The main objectives of the examinations are to determine that a person is in an admissible category with respect to his physical and mental health, his moral character, his status from the point of view of security, his employability with respect to the state of the labour market in Canada. Where a family is migrating all members must be examined at the same time, whether the head of the family precedes them or not, to avoid the risk of breaking up a family if one member were to be rejected. Winter unemployment because of the severity of the climate has long been a feature of labour conditions in Canada. The general aim, therefore, is to discourage the arrival of immigrant workers during the winter months. More recently, however, efforts have been made to bring in during this period those types of workers who are not affected by this seasonal slackening.

Sect. 18 of the Regulations provides that every person seeking to enter or land in Canada, except immigrants who are citizens of the United States, must be in possession of an unexpired passport issued by the country of which he is a subject or citizen. A travel document or a certificate of identification may be accepted for a stateless person or a refugee and for a woman who has become a British subject by marriage to a British subject domiciled in Canada. In addition, a valid and subsisting immigrant visa is required of all persons other than British subjects and citizens of France within the meaning of the Act, citizens of the United States, or persons who are legally admitted to the United States for permanent residence.

While British subjects and citizens of France within the meaning of the Act and citizens of the United States have not in the past been required to pass medical pre-examinations, though it was urged that they do so as a measure of facilitation, British subjects and citizens of France within the meaning of the Act are now required to have a prescribed medical certificate. Citizens and legal residents of the United States must now be in possession of a letter of pre-examination prescribed by the Minister.

The Immigration Act provides (Sect. 69) that the Department may make loans to immigrants to help defray the costs of transportation to Canada, from the port of entry to their destination and for their living expenses *en route*, the total outstanding amount not to exceed \$12,000,000. Such assistance, granted at first to heads of families only, has since been extended to include also family members and single persons. Loans are made on a repayment basis over a maximum period of 24 months. The record of repayment of these loans has been highly satisfactory.

The Regulations (Sect. 16) provide also that an immigrant shall not be admitted to Canada if he has received financial assistance from an organization, groups of persons or a person not accredited for this purpose by the Minister. Groups which, with official approval, have assisted immigrants since World War II include a number of church and voluntary organizations and some employers in need of workers, usually on a recoverable loan basis. However, most immigrants come without such assistance or are helped by relatives.

Rejection and Deportation.—As previously stated, immigration into Canada is not a matter of right and the Act defines two procedures of exclusion—rejection and deportation. Where a person applying for entry cannot be properly examined because of illness, the effects of alcohol, drugs or other cause, the examination may be deferred or the immigration officer may make an order for rejection. A person so rejected may, without prejudice, present himself subsequently for examination. With respect to deportation, however, unless an appeal is allowed, a person against whom a deportation order is made shall not be allowed to remain in Canada or, if deported, shall not be re-admitted without the consent of the Minister.

The causes which may lead to deportation are narrowed after a person has acquired domicile. A Canadian citizen cannot be deported. Canadian domicile is acquired by an immigrant after five years of continuous residence in Canada. Canadian domicile may be lost by voluntary permanent residence out of Canada, and may be forfeited by certain activities hostile to the State. Periods spent in a prison or in a mental hospital and periods during which a deportation proceeding is pending against a person are not counted towards the acquisition of domicile.

A person not a citizen may be deported regardless of length of residence and whether he has acquired domicile or not if he has been convicted under laws governing drug traffic, or if he is found to be a member of a subversive organization or engages in subversion by force or other means of democratic government as understood in Canada, or if he has been convicted of an offence involving disaffection or disloyalty to Her Majesty, or if he, outside of Canada, has engaged in activities detrimental to the security of Canada. Persons, who have not yet acquired domicile are liable to deportation if they fall into prohibited classes at the time of entry or within five years after having been landed, if they have engaged in commercialized vice, have been convicted under the criminal code, or have become inmates of prisons or mental institutions or persons who have gained entry by means of fraudulent documents or similar means.

Appeals are permitted in certain cases where deportation has been ordered.

STATUS OF IMMIGRANTS

Except for the right to vote in national elections, deferred until citizenship is acquired and for the liability to deportation referred to earlier, there are very few restrictions pertaining to the status of immigrants.

While immigrants in general are free to engage in any kind of work, there are some legal restrictions relating to employment in the Public Service of Canada and there may be others relating to work involving national security considerations. Immigrants who have received an assisted passage loan may be required to sign an undertaking to work for one year in a given type of job. This undertaking is between the immigrant and the government rather than between the immigrant and the employer.

Other restrictions, if any, are generally of a private nature and most often relate to a language handicap or to seniority systems in operation in a plant or factory. Recognition of immigrant professional persons by the governing bodies of Canadian professions has frequently been a matter of discussion and is too complex to be dealt with in detail here. Such recognition is often more easily secured by immigrants from the British Isles and from the United States than by persons from elsewhere, partly because of similarity of professional standards and practices and of language. Recognition is generally a matter to be settled between the individual immigrant professional and the relevant governing body of the profession.

Immigrants do not require any special work permit nor do they require any official identification cards, need not register with the police and in all respects have complete freedom of movement in the same way as Canadian citizens and are free to settle anywhere in Canada. Similarly no exit permits or any other official permission is required if an immigrant should decide to leave Canada permanently. Immigrants enjoy full legal rights and protection under the civil and criminal laws of Canada and the provinces. They may own or dispose of property, are protected and governed by laws applying to conditions of work, such as hours of work and minimum wages, and in general have the same rights, privileges and obligations as any other Canadian.

CITIZENSHIP

After four years and nine months of residence following landing, an immigrant may make application for Canadian citizenship which is usually granted if he possesses the required qualifications.

PLACEMENT OF IMMIGRANT WORKERS

The Immigration Branch, through its field services and with special reference to immigrants, maintains a continual survey of economic opportunities. This in conjunction with the information gained by the Department of Labour makes for fairly complete coverage of conditions throughout Canada relating to absorption of immigrants. Such information is forwarded to immigration officers abroad to guide them in the selection of applicants and in the regulation of the flow of admissions.

As additions to the labour force, immigrants are usually selected because there is demand for workers in the occupations they are able to fill. Selection, therefore, is not on a 'one job—one man' basis, except in special cases, and the immigrant worker is free to compete with others in the Canadian labour market. The facilities of the National Employment Service are equally available to immigrants and citizens.

The Settlement Service of the Immigration Branch is of particular interest to persons who aim to be self-employed. Immigrants, equally with Canadians, are free to engage in any type of business. They are subject only to the ordinary regulations and restrictions which govern the operation of any enterprise in Canada. Settlement Service officers located in all districts across Canada offer a wide range of assistance advising newcomers in matters such as the purchase of properties, financing and evaluating prospects of success.

ASSISTANCE AND INTEGRATION

One aim of successful integration is to equalize the position of immigrants with that of Canadian citizens. Satisfactory occupational placement to this end is essential. Newcomers being strangers in the country, however, will often require additional assistance and direction.

At the main Canadian ports immigration officers, railway officials, representatives of churches and volunteer groups and societies, and sometimes consular representatives of the immigrant's homelands are present to direct and guide newcomers to their destinations, assist families, help in locating relatives, shelter and jobs and generally give counsel and information. In nine cities the Immigration Department maintains halls for stopover purposes where immigrants may wait for travel or other arrangements to be made. In nearly every community where there are many newcomers, night classes in language and citizenship are conducted, organized usually under the provincial departments of education with the Government of Canada sharing the costs. Those isolated on farms or in the bush may take such courses by correspondence. Voluntary organizations assist the newcomers to become part of the social life of the community.

Having regard for possible hazards of settling in a new environment which immigrants may have to face, the Government of Canada, under a series of agreements with most provinces, shares on an equal basis for a period of twelve months the cost of medical care, hospitalization, temporary welfare and rehabilitation assistance for immigrants who have become destitute through no fault of their own, but do not have the required residence qualifications to benefit from the services normally applied to indigents by provincial and municipal governments. Moreover, the Department of Citizenship and Immigration is also empowered to provide financial and other emergency assistance under the same circumstances. Regulations have been relaxed so that immigrants receiving such assistance are not subject to deportation "on the sole ground of indigency". The Department may also provide emergency assistance, financial and other, to immigrants who within twelve months after landing and through no fault of their own, have become destitute because of unemployment or other misfortune.

Newcomers, regardless of citizenship, share alike with Canadians the benefits of all general social assistance measures in effect in Canada, though most of these involve a residence requirement. The three-year residence requirement originally contained in the Family Allowance Act (*see* Index) was reduced in 1948 to one year to assist more readily immigrant families. It was not considered practicable to reduce the residence requirement

further but in April 1956 the Department of Citizenship and Immigration undertook as an alternative measure to provide assistance to immigrant families during their first year in Canada at the rate of \$60 a year for each child under 16 years of age not born in Canada. Unemployment insurance under the Unemployment Insurance Act of 1941 (*see* Index) provides cash payment to natives and immigrants alike if they have fulfilled the conditions of the Act. Old Age Security and Old Age Assistance (*see* Index) both require twenty years of residence in the country, which may affect especially dependent parents who may have come to Canada on the sponsorship of their adult children. A ten-year residence requirement applies in the case of Pensions for the Blind (*see* Index) and Disabled Persons Allowances (*see* Index) though such persons are eligible from age 18 on. Conditions for the payment of Workmen's Compensation are the same for immigrants and citizens.

This article has attempted to review selected aspects of Canadian immigration development and to place in perspective the changing immigration and conditions of immigration into Canada since the early days of colonization. It is planned to deal with complementary aspects and with immigration in its social character in subsequent editions of the Year Book.

Section 1.—Immigration Statistics

The numbers of immigrant arrivals in Canada year by year from 1912 to 1956 are shown in Table 1. Tables 2 to 8 provide statistical analyses of the content of the immigration movement in recent years. The numbers of persons refused admission at ports of entry and those deported from Canada during 1952 to 1956 are given in Table 9.

During the period 1912 to 1956, 4,217,838 immigrants were admitted to Canada. The annual influx ranged from a high of 400,870 in 1913 to a low of 7,576 in 1942, the average yearly intake for the period being 95,860. The total number of immigrant arrivals in the postwar period 1946 to 1956 was 1,387,176, representing an average of 126,107 a year.

1.—Immigrant Arrivals 1912-56

NOTE.—Figures for 1852-93 are given in the 1942 Year Book, p. 153 and for 1894-1911 in the 1948-49 edition, p. 175.

| Year | Arrivals | Year | Arrivals | Year | Arrivals | Year | Arrivals | Year | Arrivals |
|-----------|----------|-----------|----------|-----------|----------|-----------|----------|-----------|----------|
| | No. | | No. | | No. | | No. | | No. |
| 1912..... | 375,756 | 1921..... | 91,728 | 1930..... | 104,806 | 1939..... | 16,994 | 1948..... | 125,414 |
| 1913..... | 400,870 | 1922..... | 64,224 | 1931..... | 27,530 | 1940..... | 11,324 | 1949..... | 95,217 |
| 1914..... | 150,484 | 1923..... | 133,729 | 1932..... | 20,591 | 1941..... | 9,329 | 1950..... | 73,912 |
| 1915..... | 36,665 | 1924..... | 124,164 | 1933..... | 14,382 | 1942..... | 7,576 | 1951..... | 194,391 |
| 1916..... | 55,914 | 1925..... | 84,907 | 1934..... | 12,476 | 1943..... | 8,504 | 1952..... | 164,498 |
| 1917..... | 72,910 | 1926..... | 135,982 | 1935..... | 11,277 | 1944..... | 12,801 | 1953..... | 168,868 |
| 1918..... | 41,845 | 1927..... | 158,886 | 1936..... | 11,643 | 1945..... | 22,722 | 1954..... | 154,227 |
| 1919..... | 107,698 | 1928..... | 166,783 | 1937..... | 15,101 | 1946..... | 71,719 | 1955..... | 109,946 |
| 1920..... | 138,824 | 1929..... | 164,993 | 1938..... | 17,244 | 1947..... | 64,127 | 1956..... | 164,857 |

It will be seen from the figures of Table 2 that during the five-year period 1952 to 1956, 29.1 p.c. of the immigration flow came from the United Kingdom and Ireland, 57.7 p.c. from Central Europe, 6.5 p.c. from the United States and 6.7 p.c. from all other countries.

2.—Immigrant Admissions by Country of Last Permanent Residence 1952-56

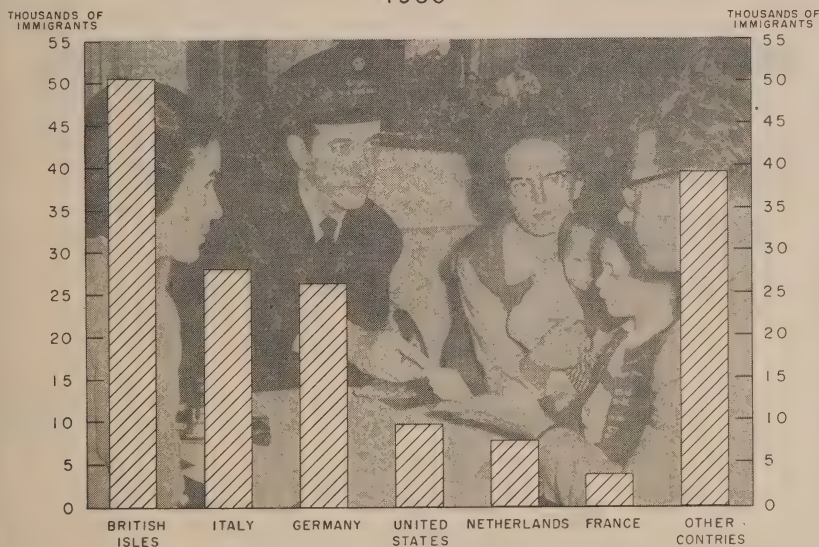
NOTE.—Comparable figures for 1946-49 are given in the 1951 Year Book, p. 143 and for 1950 and 1951 in the 1956 edition, p. 182; figures in less detail for 1939-45 appear in the 1950 edition, p. 186.

| Country | 1952 | 1953 | 1954 | 1955 | 1956 |
|--|----------------|----------------|----------------|----------------|----------------|
| | No. | No. | No. | No. | No. |
| British Isles— | | | | | |
| England..... | 31,776 | 31,929 | 29,618 | 21,813 | 36,422 |
| Northern Ireland..... | 2,671 | 4,255 | 2,889 | 1,397 | 2,967 |
| Scotland..... | 10,025 | 9,683 | 9,919 | 5,472 | 10,055 |
| Wales..... | 588 | 707 | 694 | 546 | 802 |
| Totals, British Isles..... | 45,060 | 46,574 | 43,120 | 29,228 | 50,246 |
| Other Commonwealth..... | 3,473 | 4,238 | 5,031 | 4,702 | 5,335 |
| Totals, Commonwealth..... | 48,533 | 50,812 | 48,151 | 33,930 | 55,581 |
| Republic of Ireland..... | 947 | 2,121 | 2,059 | 1,038 | 2,229 |
| Continental Europe— | | | | | |
| Czechoslovakia..... | 514 | 27 | 16 | 30 | 30 |
| France..... | 5,395 | 4,045 | 3,672 | 2,869 | 3,809 |
| Germany..... | 25,716 | 34,193 | 28,479 | 17,630 | 26,061 |
| Italy..... | 20,651 | 23,704 | 23,780 | 19,139 | 27,939 |
| Netherlands..... | 21,068 | 20,341 | 16,182 | 6,759 | 7,792 |
| Poland..... | 3,358 | 136 | 45 | 113 | 186 |
| Union of Soviet Socialist Republics ¹ | 1,969 | 69 | 24 | 4 | 14 |
| Other European countries..... | 19,253 | 17,750 | 17,144 | 13,394 | 26,699 |
| United States²..... | 9,333 | 9,407 | 10,131 | 10,395 | 9,777 |
| Other countries..... | 7,761 | 6,263 | 4,544 | 4,645 | 4,740 |
| Totals, All Countries..... | 164,498 | 168,865 | 154,227 | 109,946 | 164,857 |

¹ In both Europe and Asia.

² Includes U.S.A. citizens on permit but applying for permanent residence.

IMMIGRANT ADMISSIONS BY COUNTRY OF LAST PERMANENT RESIDENCE 1956

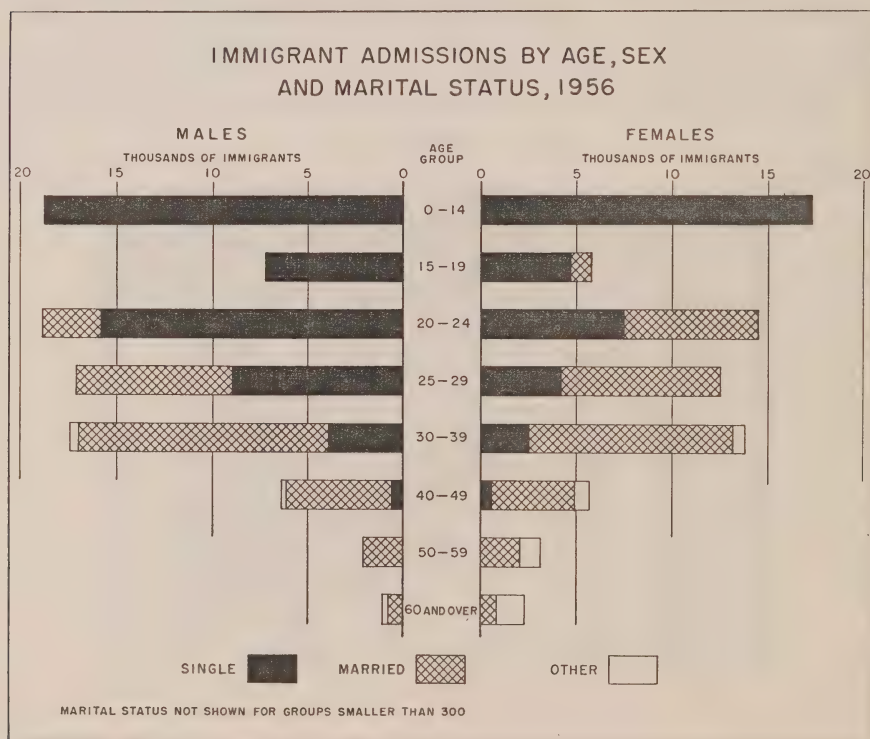


Sex, Age and Marital Status.—In the ten-year period 1947 to 1956 adult males comprised 42.2 p.c. of the immigrant arrivals, adult females 33.3 p.c. and children under 18 years of age the remaining 24.5 p.c. Without relation to age, 54.3 p.c. of the newcomers were males.

3.—Sex Distribution of Immigrants as Adult Males, Adult Females and Children, 1947-56

NOTE.—Figures from 1930 are given in the corresponding table of previous Year Books beginning with the 1946 edition.

| Year | Adult Males | Adult Females | Under 18 Years | | Total |
|-----------|-------------|---------------|----------------|---------|---------|
| | | | Males | Females | |
| | No. | No. | No. | No. | No. |
| 1947..... | 27,281 | 24,787 | 6,154 | 5,905 | 64,127 |
| 1948..... | 52,986 | 45,191 | 14,104 | 13,133 | 125,414 |
| 1949..... | 39,044 | 32,957 | 12,118 | 11,098 | 95,217 |
| 1950..... | 30,700 | 24,172 | 10,287 | 8,753 | 73,912 |
| 1951..... | 95,818 | 53,239 | 24,343 | 20,986 | 194,391 |
| 1952..... | 66,083 | 53,443 | 23,766 | 21,206 | 164,498 |
| 1953..... | 68,269 | 56,425 | 23,153 | 21,021 | 168,868 |
| 1954..... | 64,551 | 51,690 | 19,980 | 18,006 | 154,227 |
| 1955..... | 42,425 | 40,120 | 14,403 | 12,998 | 109,946 |
| 1956..... | 67,880 | 55,574 | 21,661 | 19,742 | 164,857 |



In 1956, 78.9 p.c. of the males and 77.0 p.c. of the females arriving were 15 years of age or over as compared with 78.3 p.c. and 78.7 p.c., respectively in 1955. Of those arriving in 1956 who were 15 years of age or over, 51.8 p.c. were married, 44.0 p.c. were single and 4.1 p.c. were widowed or divorced. The total number of single males exceeded the number of single females by 18,317 but there were more females than males in the married, widowed and divorced categories. In the single class, males were 49.1 p.c. more numerous than females, the numerical superiority being particularly heavy in the age group 15 to 29.

4.—Sex and Marital Status of Immigrant Arrivals by Age Group 1955 and 1956

| Year and Age Group | Males | | | | | Females | | | | |
|--------------------------|---------------|---------------|------------|------------|---------------|---------------|---------------|--------------|--------------|---------------|
| | Single | Married | Widowed | Divorced | Total | Single | Married | Widowed | Divorced | Total |
| | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| 1955 | | | | | | | | | | |
| 0-14 years..... | 12,334 | — | — | — | 12,334 | 11,292 | — | — | — | 11,292 |
| 15-19 "..... | 4,456 | 46 | — | — | 4,502 | 3,252 | 698 | — | 2 | 3,952 |
| 20-24 "..... | 9,104 | 1,606 | 2 | 8 | 10,720 | 5,110 | 4,639 | 1 | 32 | 9,782 |
| 25-29 "..... | 6,359 | 4,810 | 11 | 63 | 11,243 | 3,373 | 5,783 | 29 | 99 | 9,284 |
| 30-39 "..... | 2,759 | 7,874 | 39 | 159 | 10,831 | 2,141 | 7,149 | 122 | 250 | 9,662 |
| 40-49 "..... | 546 | 3,829 | 50 | 122 | 4,547 | 570 | 3,429 | 331 | 258 | 4,588 |
| 50-59 "..... | 120 | 1,405 | 72 | 59 | 1,656 | 205 | 1,542 | 683 | 158 | 2,588 |
| 60 years or over..... | 52 | 701 | 228 | 14 | 995 | 166 | 603 | 1,149 | 52 | 1,970 |
| Totals, 1955..... | 35,730 | 20,271 | 402 | 425 | 56,828 | 26,109 | 23,843 | 2,315 | 851 | 53,118 |
| 1956 | | | | | | | | | | |
| 0-14 years..... | 18,879 | — | — | — | 18,879 | 17,334 | — | — | — | 17,334 |
| 15-19 "..... | 7,206 | 62 | 1 | 1 | 7,270 | 4,733 | 1,019 | 1 | 1 | 5,754 |
| 20-24 "..... | 15,813 | 3,083 | — | 22 | 18,918 | 7,465 | 7,014 | 14 | 47 | 14,540 |
| 25-29 "..... | 8,972 | 8,212 | 13 | 124 | 17,321 | 4,227 | 8,336 | 26 | 143 | 12,737 |
| 30-39 "..... | 3,909 | 13,213 | 51 | 278 | 17,451 | 2,586 | 10,597 | 162 | 384 | 13,729 |
| 40-49 "..... | 646 | 5,521 | 74 | 153 | 6,394 | 598 | 4,352 | 417 | 321 | 5,688 |
| 50-59 "..... | 123 | 1,918 | 87 | 48 | 2,176 | 196 | 1,876 | 882 | 199 | 3,153 |
| 60 years or over..... | 48 | 782 | 286 | 16 | 1,132 | 140 | 706 | 1,459 | 76 | 2,381 |
| Totals, 1956..... | 55,596 | 32,791 | 512 | 642 | 89,541 | 37,279 | 33,900 | 2,961 | 1,176 | 75,316 |

Birthplace, Nationality and Origin.—Of the immigrant arrivals in 1956, 33.5 p.c. were born in Commonwealth countries or in Ireland. This percentage compares with 30.3 p.c. in 1955, 31.2 p.c. in 1954, 29.9 p.c. in 1953 and 28.2 p.c. in 1952. In 1956, 36.4 p.c. of the newcomers were born in Germany, Italy or the Netherlands, 4.9 p.c. were born in the United States and 25.2 p.c. in other countries.

5.—Birthplaces of Immigrant Arrivals, 1954-56

NOTE.—Figures from 1942 are given in the corresponding table of previous Year Books beginning with the 1948-49 edition.

| Birthplace | 1954 | 1955 | 1956 | Birthplace | 1954 | 1955 | 1956 |
|----------------------------------|---------------|---------------|---------------|-----------------------------------|-------|-------|-------|
| No. | No. | No. | No. | No. | No. | No. | No. |
| Commonwealth— | | | | Commonwealth—concl. | | | |
| British Isles— | | | | Other Commonwealth— | | | |
| England..... | 25,426 | 18,597 | 31,271 | Canada..... | 704 | 669 | 660 |
| Northern Ireland..... | 3,182 | 1,549 | 3,142 | India..... | 526 | 538 | 729 |
| Scotland..... | 10,091 | 5,775 | 10,332 | New Zealand..... | 371 | 310 | 393 |
| Wales..... | 961 | 734 | 1,097 | West Indies (British)..... | 799 | 804 | 1,065 |
| Lesser Isles..... | 198 | 118 | 122 | Other..... | 1,218 | 840 | 1,070 |
| Totals, British Isles.... | 39,858 | 26,773 | 45,964 | Republic of Ireland..... | 2,795 | 1,584 | 3,221 |
| Other Commonwealth— | | | | Continent of Africa (other | | | |
| Africa (British)..... | 637 | 443 | 589 | than British)..... | 186 | 83 | 488 |
| Australia..... | 1,248 | 1,302 | 1,605 | | | | |

For footnotes, see end of table, p. 180.

5.—Birthplaces of Immigrant Arrivals, 1954-56—concluded

| Birthplace | 1954 | 1955 | 1956 | Birthplace | 1954 | 1955 | 1956 |
|--|------------|------------|------------|--|----------------------------|----------------------------|----------------------------|
| No. | No. | No. | No. | No. | No. | No. | No. |
| Continent of North America— | | | | Continent of Europe—concl. | | | |
| Central America..... | 26 | 25 | 28 | Denmark..... | 1,420 | 1,378 | 3,583 |
| Mexico..... | 87 | 72 | 59 | Finland..... | 699 | 642 | 1,099 |
| United States..... | 8,089 | 8,487 | 8,016 | France..... | 3,015 | 2,336 | 3,077 |
| Other..... | 96 | 87 | 78 | Germany..... | 24,212 | 15,288 | 23,216 |
| | | | | Greece..... | 2,780 | 2,927 | 5,078 |
| Continent of South America..... | 598 | 506 | 492 | Hungary..... | 1,094 | 680 | 4,583 |
| | | | | Italy..... | 24,331 | 19,960 | 29,189 |
| Continent of Asia— | | | | Latvia..... | 525 | 338 | 346 |
| China..... | 2,029 | 2,623 | 2,174 | Lithuania..... | 318 | 177 | 209 |
| Israel..... | 97 | 99 | 162 | Netherlands..... | 15,823 | 6,655 | 7,627 |
| Japan..... | 86 | 110 | 142 | Norway..... | 1,014 | 722 | 848 |
| Other..... | 496 | 731 | 1,099 | Poland..... | 3,520 | 2,350 | 2,593 |
| | | | | Romania..... | 1,174 | 557 | 714 |
| Continent of Europe— | | | | Switzerland..... | 1,145 | 739 | 1,243 |
| Austria..... | 4,346 | 1,996 | 3,126 | Union of Soviet Socialist Republics ¹ | 1,610 | 1,109 | 968 |
| Belgium..... | 1,572 | 1,215 | 2,370 | Yugoslavia..... | 2,416 | 1,916 | 2,803 |
| Czechoslovakia..... | 1,159 | 663 | 892 | Other..... | 1,249 | 1,961 | 2,611 |
| | | | | Grand Totals..... | 154,237² | 109,946³ | 164,857⁴ |

¹ In both Europe and Asia.

² Includes 7 born at sea and 852 not stated.

³ Includes 5 born at sea

and 246 not stated.

⁴ Includes 3 born at sea and 645 not stated.

Out of every hundred immigrants admitted to Canada during the three-year period 1954 to 1956, 31 were British subjects, 17 were citizens of Germany, 17 of Italy, 7 of the Netherlands and 6 of the United States; other nationalities made up the remaining 22.

6.—Nationalities of Immigrant Arrivals 1954-56

NOTE.—Figures from 1930 are given in the corresponding table of previous Year Books beginning with the 1936 edition.

| Nationality | 1954 | 1955 | 1956 | Nationality | 1954 | 1955 | 1956 |
|----------------------------------|--------|--------|--------|-------------------------------------|----------------|----------------|----------------|
| No. | No. | No. | No. | No. | No. | No. | No. |
| African (not British)..... | 24 | — | 28 | Latvian..... | 426 | 118 | 82 |
| Albanian..... | 23 | 2 | — | Lithuanian..... | 192 | 55 | 50 |
| Argentinian..... | 70 | 156 | 103 | Mexican..... | 53 | 65 | 49 |
| Armenian..... | 2 | — | — | Netherlander..... | 16,317 | 6,885 | 7,896 |
| Austrian..... | 4,597 | 1,997 | 3,193 | Norwegian..... | 998 | 686 | 838 |
| Belgian..... | 1,448 | 1,027 | 2,226 | Persian..... | 6 | 12 | 6 |
| Brazilian..... | 18 | 60 | 60 | Polish..... | 1,846 | 169 | 267 |
| British..... | 46,725 | 32,370 | 53,362 | Portuguese..... | 1,072 | 1,212 | 1,729 |
| Bulgarian..... | 40 | 4 | 11 | Romanian..... | 395 | 17 | 22 |
| Central American..... | 15 | 20 | 17 | Russian..... | 294 | 26 | 27 |
| Chinese..... | 1,930 | 2,535 | 2,044 | South American, <i>n.e.s.</i> | 94 | 134 | 147 |
| Czechoslovakian..... | 229 | 36 | 30 | Spanish..... | 124 | 146 | 359 |
| Danish..... | 1,417 | 1,379 | 3,605 | Swedish..... | 329 | 278 | 416 |
| Estonian..... | 232 | 46 | 30 | Swiss..... | 1,141 | 728 | 1,215 |
| Finnish..... | 677 | 628 | 1,074 | Syrian..... | 116 | 360 | 466 |
| French..... | 3,016 | 2,332 | 3,427 | Turkish..... | 34 | 22 | 48 |
| German..... | 28,360 | 17,138 | 25,590 | Ukrainian..... | 245 | — | — |
| Greek..... | 2,857 | 2,907 | 5,104 | United States..... | 9,174 | 9,597 | 9,038 |
| Hungarian..... | 391 | 139 | 3,914 | West Indian (not British)..... | 19 | 23 | 33 |
| Icelandic..... | 36 | 19 | 48 | Yugoslavic..... | 1,764 | 394 | 460 |
| Irish (Republic of Ireland)..... | 2,334 | 1,261 | 2,664 | Other..... | 233 | 4,511 | 5,190 |
| Israeli..... | 432 | 276 | 346 | | | | |
| Italian..... | 24,410 | 20,077 | 29,522 | Totals..... | 154,237 | 109,946 | 164,857 |
| Japanese..... | 72 | 99 | 121 | | | | |

Immigrants of continental European origin comprised 63.1 p.c. of the influx during 1956, those of British origin 34.3 p.c. and of other origins 2.6 p.c. These percentages remained fairly constant during the three years 1954 to 1956.

7.—Origins of Immigrant Arrivals 1954-56

NOTE.—Figures from 1926 are given in the corresponding table of previous Year Books beginning with the 1939 edition.

| Origin | 1954 | 1955 | 1956 | Origin | 1954 | 1955 | 1956 |
|------------------------------|---------------|---------------|---------------|-------------------------------|----------------|----------------|----------------|
| No. | No. | No. | No. | No. | No. | No. | No. |
| British— | | | | Continental European— | | | |
| English..... | 29,617 | 22,422 | 35,204 | concl. | | | |
| Irish..... | 7,748 | 4,910 | 8,242 | Scandinavian— | | | |
| Scottish..... | 11,534 | 7,289 | 11,987 | Danish..... | 1,499 | 1,496 | 3,713 |
| Welsh..... | 1,075 | 846 | 1,154 | Icelandic..... | 50 | 25 | 41 |
| Totals, British..... | 49,974 | 35,467 | 56,587 | Norwegian..... | 1,181 | 898 | 1,011 |
| | | | | Swedish..... | 510 | 488 | 596 |
| | | | | Spanish ¹ | 247 | 335 | 571 |
| Continental European— | | | | Swiss ² | 1,027 | 680 | 1,115 |
| Albanian..... | 26 | 21 | 6 | Ukrainian..... | 724 | 560 | 578 |
| Austrian..... | 3,877 | 1,835 | 2,982 | Yugoslavic ¹ | 1,610 | 1,416 | 2,043 |
| Belgian..... | 1,346 | 1,015 | 2,143 | Totals, Continental | | | |
| Bulgarian..... | 48 | 41 | 33 | European..... | 101,351 | 70,460 | 104,011 |
| Czech..... | 377 | 354 | 347 | | | | |
| Estonian..... | 294 | 194 | 166 | Other— | | | |
| Finnish..... | 717 | 652 | 1,128 | Arabian..... | 15 | 56 | 87 |
| French..... | 3,489 | 2,941 | 3,768 | Armenian..... | 76 | 144 | 189 |
| German..... | 31,106 | 19,625 | 27,843 | Chinese..... | 1,958 | 2,602 | 2,103 |
| Greek..... | 2,956 | 3,057 | 5,274 | East Indian..... | 177 | 249 | 332 |
| Italian..... | 24,857 | 20,545 | 30,064 | Indian (American)..... | 20 | 28 | 31 |
| Jewish..... | 2,036 | 1,660 | 2,190 | Japanese..... | 73 | 102 | 124 |
| Lettish..... | 470 | 356 | 342 | Mexican..... | 11 | 11 | 27 |
| Lithuanian..... | 279 | 191 | 216 | Negro..... | 254 | 414 | 572 |
| Magyar..... | 562 | 478 | 4,340 | Persian..... | 11 | 15 | 11 |
| Maltese..... | 939 | 355 | 381 | Syrian..... | 253 | 326 | 494 |
| Netherlander..... | 16,691 | 7,328 | 8,257 | Turkish..... | 26 | 20 | 56 |
| Polish..... | 2,461 | 2,073 | 2,438 | Not stated..... | 28 | 52 | 233 |
| Portuguese..... | 1,337 | 1,439 | 1,984 | Totals, Other..... | 2,902 | 4,019 | 4,259 |
| Romanian..... | 230 | 105 | 153 | Grand Totals..... | 154,227 | 109,946 | 164,857 |
| Russian..... | 405 | 297 | 288 | | | | |

¹ Includes a few minor groups, such as German, French, Italian, etc.

² Reported as Swiss origin but evidently one of the constituent races

Destination and Occupation.—Approximately 55 p.c. of the immigrants admitted to Canada in 1956 declared that they were destined to occupations in the labour force. The other 45 p.c. were wives, children, other dependants and retired persons. Of the workers, 11.4 p.c. were classed as professional and managerial, 8.2 p.c. were entering agricultural occupations, 15.2 p.c. were in service occupations, 32.1 p.c. were in manufacturing, mechanical and construction trades, and 13.7 p.c. were general labourers. Almost half of the gainfully occupied female immigrants were in service occupations.

Ontario absorbed 55.0 p.c. of the arrivals in 1956, Quebec 19.0 p.c., British Columbia and the Prairie Provinces 21.8 p.c. and the Atlantic Provinces 1.8 p.c. Destinations of 2.4 p.c. were not specified.

8.—Intended Destination and Occupation of Immigrants Admitted to Canada 1956

| No. | Intended Occupation | Intended Destination | | | | | | | | | | | |
|-----|--|----------------------|-----|--------|-----|------|-----|------|-----|-------|-------|--------|-------|
| | | Nfld. | | P.E.I. | | N.S. | | N.B. | | Que. | | Ont. | |
| | | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. |
| | | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| 1 | Managerial (owners, managers, officials)..... | 6 | 1 | — | — | 11 | — | 8 | — | 222 | 11 | 439 | 21 |
| | Professional | 61 | 30 | 6 | — | 71 | 37 | 58 | 26 | 1,571 | 504 | 3,341 | 1,417 |
| 2 | Accountants and auditors..... | 4 | — | — | — | 4 | — | 1 | — | 115 | 8 | 188 | 10 |
| 3 | Architects..... | — | — | — | — | 1 | — | 1 | — | 38 | 2 | 100 | 3 |
| 4 | Chemists (other than pharmacists)..... | — | — | — | — | 2 | 1 | 1 | — | 65 | 4 | 142 | 5 |
| 5 | Dentists..... | 1 | — | — | — | — | — | 1 | — | 2 | 1 | 16 | 1 |
| 6 | Draftsmen and designers..... | 1 | — | — | — | — | — | — | — | 313 | 17 | 745 | 32 |
| 7 | Aeronautical engineers..... | — | — | — | — | — | — | — | — | 40 | — | 79 | — |
| 8 | Chemical engineers..... | 1 | — | — | — | — | — | — | — | 31 | — | 38 | — |
| 9 | Civil engineers (and other professional engineers, <i>n.e.s.</i>)..... | — | — | — | — | 3 | — | 4 | — | 151 | — | 266 | — |
| 10 | Forestry engineers..... | — | — | — | — | — | — | — | — | 2 | — | 1 | — |
| 11 | Electrical engineers..... | 2 | — | — | — | 7 | — | — | — | 150 | 1 | 247 | — |
| 12 | Mechanical engineers..... | 2 | — | — | — | — | — | 3 | — | 95 | — | 208 | — |
| 13 | Metallurgical engineers..... | — | — | — | — | — | — | — | — | 4 | — | 5 | — |
| 14 | Mining engineers..... | — | — | — | — | — | — | — | — | 13 | — | 24 | — |
| 15 | Laboratory technicians and assistants, <i>n.e.s.</i> | 1 | 1 | — | — | 3 | — | 3 | — | 59 | 29 | 142 | 71 |
| 16 | Graduate nurses..... | — | 21 | — | — | — | 15 | — | 11 | — | 173 | — | 775 |
| 17 | Physicians and surgeons..... | 36 | 2 | — | — | 13 | 2 | 2 | 2 | 56 | 16 | 128 | 15 |
| 18 | Teachers and professors..... | 3 | 2 | — | — | 14 | 10 | 10 | 7 | 71 | 110 | 197 | 272 |
| 19 | Other professional workers..... | 10 | 4 | 6 | — | 24 | 8 | 32 | 6 | 366 | 143 | 805 | 233 |
| | Clerical | 5 | 8 | 2 | 1 | 17 | 49 | 10 | 13 | 795 | 1,120 | 1,969 | 3,757 |
| 20 | Stenographers and typists..... | — | 3 | — | 1 | — | 29 | — | 6 | 18 | 738 | 39 | 2,301 |
| 21 | Other clerical workers..... | 5 | 5 | 2 | — | 17 | 20 | 10 | 7 | 777 | 382 | 1,930 | 1,456 |
| | Transportation | 7 | — | — | — | 19 | — | 12 | — | 289 | 3 | 793 | 4 |
| 22 | Air pilots, captains and mates, railway conductors, locomotive engineers, etc..... | 2 | — | — | — | 8 | — | 3 | — | 44 | — | 67 | — |
| 23 | Other transportation workers..... | 5 | — | — | — | 11 | — | 9 | — | 245 | 3 | 726 | 4 |
| 24 | Communication workers | 1 | — | — | — | 7 | 2 | 1 | — | 76 | 34 | 148 | 220 |
| | Commercial | 5 | 2 | 1 | — | 16 | 4 | 13 | 4 | 472 | 169 | 1,514 | 638 |
| 25 | Commercial travellers and salesmen..... | 2 | — | 1 | — | 9 | — | 9 | — | 295 | 9 | 1,056 | 38 |
| 26 | Sales clerks..... | 1 | 2 | — | — | 5 | 4 | 2 | 2 | 73 | 148 | 202 | 546 |
| 27 | Other trading workers..... | 2 | — | — | — | 2 | — | 2 | 2 | 104 | 12 | 256 | 54 |
| 28 | Financial workers | 1 | — | — | — | 2 | — | 1 | — | 62 | 2 | 136 | 4 |
| | Service | 16 | 8 | 3 | 9 | 61 | 130 | 14 | 29 | 989 | 3,170 | 1,606 | 5,038 |
| 29 | Barbers, hairdressers, manicurists..... | — | — | — | 1 | 3 | 3 | 1 | 1 | 95 | 62 | 250 | 203 |
| 30 | Nurses' aids..... | 3 | 1 | — | — | — | 14 | — | — | 21 | 163 | 85 | 305 |
| 31 | Cooks..... | — | — | 1 | — | 12 | 1 | — | — | 185 | 41 | 207 | 93 |
| 32 | Domestic servants..... | — | 4 | — | 6 | — | 107 | — | 25 | 32 | 2,739 | 38 | 4,175 |
| 33 | Other non-professional service workers..... | 12 | 3 | 2 | 1 | 46 | 5 | 11 | 3 | 656 | 165 | 1,026 | 262 |
| | Agricultural | 3 | — | 25 | — | 129 | 1 | 50 | — | 1,300 | 12 | 3,692 | 51 |
| 34 | Farmers and agriculturists..... | — | — | — | — | 4 | — | — | — | 13 | — | 46 | — |
| 35 | Farm labourers..... | 3 | — | 25 | — | 125 | 1 | 50 | — | 1,287 | 12 | 3,646 | 51 |
| | Fishing, Trapping and Logging | 1 | — | — | — | 10 | — | 4 | — | 47 | — | 256 | — |
| 36 | Fishermen..... | 1 | — | — | — | 8 | — | — | — | 1 | — | 5 | — |
| 37 | Trappers..... | — | — | — | — | — | — | — | — | — | — | 1 | — |
| 38 | Bushmen and lumbermen..... | — | — | — | — | 2 | — | 4 | — | 46 | — | 250 | — |
| | Mining | — | — | — | — | 1 | — | 2 | — | 161 | — | 664 | — |
| 39 | Miners..... | — | — | — | — | 1 | — | 2 | — | 157 | — | 648 | — |
| 40 | Oil field workers..... | — | — | — | — | — | — | — | — | 3 | — | 14 | — |
| 41 | Other workers in mines, quarries..... | — | — | — | — | — | — | — | — | 1 | — | 2 | — |
| | Manufacturing, Mechanical and Construction | 36 | 5 | 4 | — | 238 | 5 | 149 | 12 | 4,518 | 375 | 14,995 | 1,153 |
| 42 | Aircraft mechanics and repairmen..... | 2 | — | — | — | 4 | — | 1 | — | 35 | — | 159 | — |
| 43 | Automobile mechanics and repairmen..... | 3 | — | — | — | 18 | — | 14 | — | 302 | — | 883 | — |
| 44 | Bakers..... | — | — | — | — | 6 | — | 6 | — | 149 | 2 | 413 | 6 |
| 45 | Blacksmiths, hammermen, forgers..... | — | — | — | — | — | — | — | — | 36 | — | 102 | — |
| 46 | Boilermakers, platers..... | — | — | — | — | — | — | — | — | 7 | — | 29 | — |
| 47 | Brick and stone masons..... | 2 | — | 1 | — | 14 | — | 29 | — | 419 | — | 1,389 | — |
| 48 | Butchers and meat cutters..... | — | — | — | — | 4 | — | 3 | — | 106 | 1 | 321 | 1 |
| 49 | Butter and cheese makers..... | — | — | — | — | 1 | — | — | — | 3 | — | 11 | — |
| 50 | Cabinet and furniture makers..... | 1 | — | — | — | 4 | — | 3 | — | 91 | — | 264 | — |

8.—Intended Destination and Occupation of Immigrants Admitted to Canada 1956—cont.

| Intended Destination | | | | | | | | | | | | Canada | | | No. |
|----------------------|-----|-------|-----|-------|-----|-------|-----|------------------|-----|---------------|-----|--------|--------|--------|-----|
| Man. | | Sask. | | Alta. | | B.C. | | Yukon and N.W.T. | | Not Specified | | M. | | Total | |
| M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | No. | |
| No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | |
| 20 | — | 13 | 3 | 82 | 2 | 149 | 5 | 2 | 1 | — | — | 952 | 44 | 996 | 1 |
| 136 | 97 | 116 | 55 | 445 | 135 | 682 | 317 | 4 | — | 196 | 38 | 6,687 | 2,656 | 9,343 | 2 |
| 8 | 1 | 1 | — | 18 | — | 63 | 3 | — | — | 4 | — | 416 | 22 | 438 | 2 |
| 4 | — | 5 | — | 12 | 1 | 32 | 1 | — | — | 11 | — | 204 | 7 | 211 | 3 |
| 1 | — | 3 | — | 12 | 1 | 12 | — | — | — | 13 | 1 | 251 | 12 | 263 | 4 |
| 14 | — | 1 | — | — | — | 2 | — | — | — | 5 | — | 29 | 2 | 31 | 5 |
| 1 | 1 | 3 | — | 37 | 2 | 55 | 9 | — | — | 17 | 7 | 1,185 | 68 | 1,253 | 6 |
| 6 | — | — | — | 1 | — | 6 | — | 1 | — | — | — | 133 | — | 133 | 7 |
| — | — | — | — | 3 | — | 12 | — | — | — | 8 | — | 93 | — | 93 | 8 |
| 4 | — | 6 | — | 26 | — | 63 | — | — | — | 13 | — | 536 | — | 536 | 9 |
| — | — | 1 | — | — | — | 3 | — | — | — | 1 | — | 8 | — | 8 | 10 |
| 5 | — | 2 | — | 18 | — | 24 | — | — | — | 4 | — | 459 | 1 | 460 | 11 |
| 4 | — | 2 | — | 15 | — | 28 | — | — | — | 18 | 1 | 375 | 1 | 376 | 12 |
| — | — | 1 | — | 1 | — | 4 | — | — | — | — | — | 15 | — | 15 | 13 |
| — | — | 3 | — | 15 | — | 5 | — | — | — | 4 | — | 64 | — | 64 | 14 |
| 6 | 2 | 2 | 1 | 13 | 4 | 23 | 13 | — | — | 17 | 2 | 269 | 124 | 393 | 15 |
| — | 51 | — | 19 | — | 65 | — | 114 | — | — | — | 4 | — | 1,248 | 1,248 | 16 |
| 26 | 3 | 26 | 3 | 23 | 2 | 26 | 2 | — | — | 28 | 4 | 364 | 51 | 415 | 17 |
| 8 | 20 | 14 | 13 | 26 | 28 | 112 | 100 | — | — | 6 | 5 | 461 | 567 | 1,028 | 18 |
| 49 | 19 | 46 | 19 | 225 | 32 | 212 | 75 | 3 | — | 47 | 14 | 1,825 | 553 | 2,378 | 19 |
| 93 | 120 | 25 | 50 | 154 | 168 | 398 | 627 | 2 | 4 | 48 | 57 | 3,518 | 5,974 | 9,492 | — |
| 1 | 60 | — | 32 | 4 | 97 | 4 | 386 | — | 1 | — | 26 | 66 | 3,680 | 3,746 | 20 |
| 92 | 60 | 25 | 18 | 150 | 71 | 394 | 241 | 2 | 3 | 48 | 31 | 3,452 | 2,294 | 5,746 | 21 |
| 96 | 1 | 14 | — | 97 | — | 205 | — | 3 | — | 99 | 4 | 1,634 | 12 | 1,646 | — |
| 6 | — | — | — | 5 | — | 40 | — | 3 | — | 1 | — | 179 | — | 179 | 22 |
| 90 | 1 | 14 | — | 92 | — | 165 | — | — | — | 98 | 4 | 1,455 | 12 | 1,467 | 23 |
| 7 | 9 | 1 | 2 | 18 | 12 | 31 | 37 | — | — | 2 | 1 | 292 | 317 | 609 | 24 |
| 75 | 32 | 11 | 8 | 123 | 39 | 310 | 93 | 2 | — | 25 | 5 | 2,567 | 994 | 3,561 | — |
| 44 | — | 8 | — | 84 | — | 189 | 5 | 1 | — | 6 | — | 1,704 | 52 | 1,756 | 25 |
| 25 | 27 | 2 | 6 | 20 | 36 | 60 | 85 | — | — | 10 | 3 | 400 | 859 | 1,259 | 26 |
| 6 | 5 | 1 | 2 | 19 | 3 | 61 | 3 | 1 | — | 9 | 2 | 463 | 83 | 546 | 27 |
| 5 | — | 3 | — | 12 | 2 | 30 | 2 | — | — | — | — | 252 | 10 | 262 | 28 |
| 119 | 308 | 74 | 119 | 171 | 470 | 378 | 783 | 2 | 7 | 55 | 241 | 3,488 | 10,312 | 13,800 | — |
| 11 | 13 | 3 | 2 | 15 | 16 | 26 | 30 | — | 1 | 17 | 6 | 421 | 338 | 759 | 29 |
| 6 | 14 | 2 | 5 | 6 | 39 | 18 | 65 | — | — | — | 16 | 141 | 623 | 764 | 30 |
| 43 | 3 | 15 | 1 | 39 | 17 | 57 | 18 | 1 | — | 8 | 8 | 571 | 182 | 753 | 31 |
| 9 | 266 | 1 | 103 | 8 | 371 | 15 | 603 | — | 5 | — | 197 | 103 | 8,601 | 8,704 | 32 |
| 50 | 12 | 53 | 8 | 103 | 27 | 262 | 67 | 1 | 1 | 30 | 14 | 2,252 | 568 | 2,820 | 33 |
| 360 | 6 | 148 | 2 | 755 | 20 | 824 | 10 | 1 | — | 110 | 1 | 7,397 | 103 | 7,500 | — |
| 3 | — | 3 | — | 16 | — | 41 | — | — | — | — | — | 126 | — | 126 | 34 |
| 357 | 6 | 145 | 2 | 739 | 20 | 783 | 10 | 1 | — | 110 | 1 | 7,271 | 103 | 7,374 | 35 |
| 10 | — | 2 | — | 10 | — | 164 | — | — | — | 1 | — | 505 | — | 505 | — |
| — | — | — | — | 1 | — | 7 | — | — | — | — | — | 23 | — | 23 | 36 |
| — | — | — | — | — | — | — | — | — | — | — | — | 1 | — | 1 | 37 |
| 10 | — | 2 | — | 9 | — | 157 | — | — | — | 1 | — | 481 | — | 481 | 38 |
| 51 | — | 10 | — | 73 | — | 103 | — | 8 | — | 69 | 2 | 1,142 | 2 | 1,144 | — |
| 50 | — | 6 | — | 48 | — | 100 | — | 8 | — | 67 | 1 | 1,087 | 1 | 1,088 | 39 |
| 1 | — | 4 | — | 25 | — | 2 | — | — | — | 2 | — | — | — | 51 | 40 |
| — | — | — | — | — | — | 1 | — | — | — | — | 1 | 4 | 1 | 5 | 41 |
| 1,189 | 62 | 376 | 14 | 1,656 | 64 | 3,004 | 122 | 8 | 1 | 1,156 | 119 | 27,332 | 1,932 | 29,264 | — |
| 7 | — | 2 | — | 4 | — | 11 | — | — | — | 11 | — | 236 | — | 236 | 42 |
| 66 | — | 28 | — | 95 | — | 196 | — | — | — | 135 | 1 | 1,740 | 1 | 1,741 | 43 |
| 49 | — | 20 | — | 65 | — | 82 | 1 | — | — | 16 | — | 806 | 9 | 815 | 44 |
| 12 | — | 2 | — | 16 | — | 22 | — | — | — | 8 | — | 198 | — | 198 | 45 |
| 2 | — | — | — | 5 | — | 19 | — | — | — | 1 | — | 63 | — | 63 | 46 |
| 122 | — | 64 | — | 183 | — | 310 | — | — | — | 34 | — | 2,567 | — | 2,567 | 47 |
| 36 | — | 11 | — | 49 | — | 48 | — | — | — | 16 | 2 | 594 | — | 598 | 48 |
| 1 | — | — | — | 1 | — | 1 | — | — | — | — | — | 18 | 1 | 19 | 49 |
| 37 | — | 11 | — | 58 | — | 80 | — | — | — | 9 | — | 558 | — | 558 | 50 |

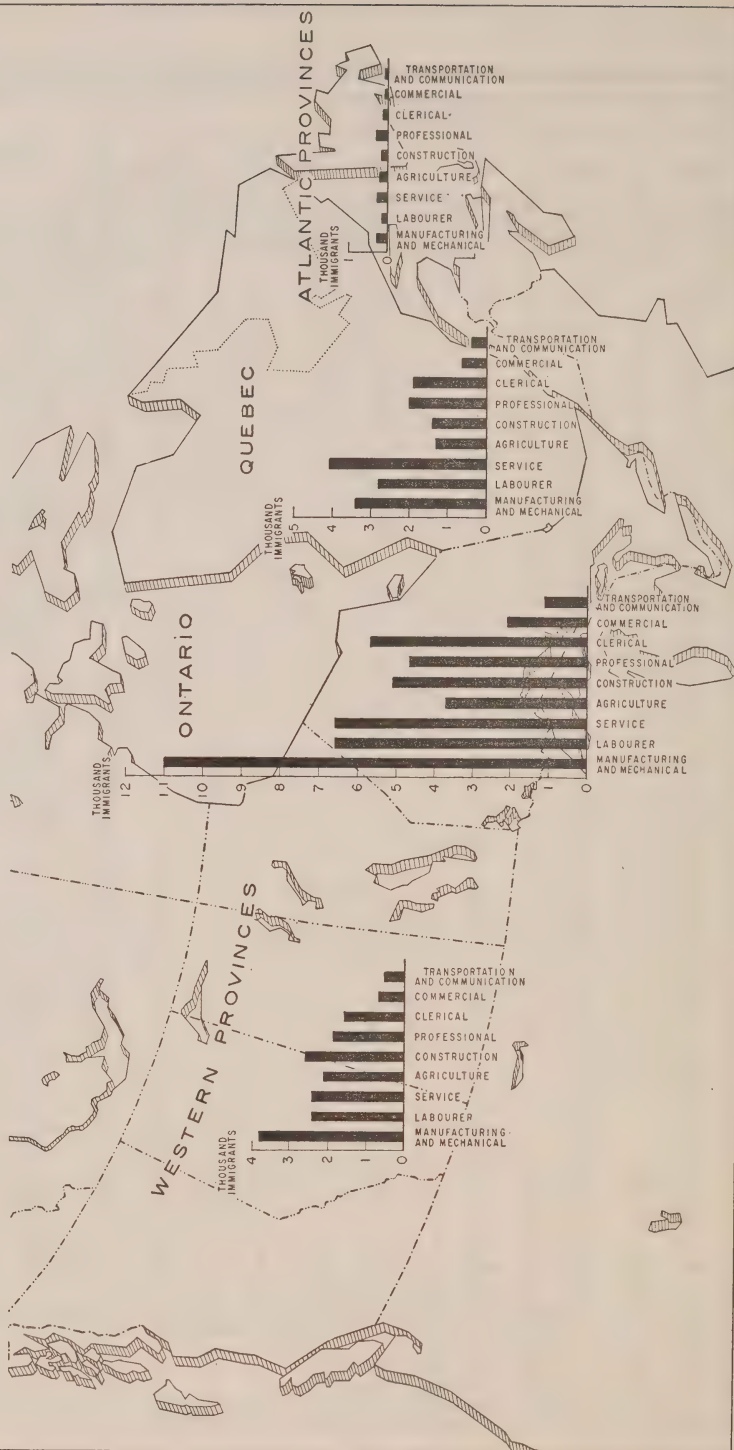
8.—Intended Destination and Occupation of Immigrants Admitted to Canada 1956—cont.

| No. | Intended Occupation | Intended Destination | | | | | | | | | | | |
|-----|---|----------------------|-----|--------|-----|------|-----|------|-----|--------|--------|--------|--------|
| | | Nfld. | | P.E.I. | | N.S. | | N.B. | | Que. | | Ont. | |
| | | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. |
| | | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| | Manufacturing, Mechanical and Construction—concl. | | | | | | | | | | | | |
| 1 | Carpenters..... | 4 | — | 2 | — | 33 | — | 25 | — | 378 | — | 1,465 | — |
| 2 | Compositors and typesetters..... | 1 | — | — | — | — | — | 1 | — | 30 | — | 121 | — |
| 3 | Construction and machinery operators..... | 1 | — | — | — | 1 | — | — | — | 32 | — | 76 | — |
| 4 | Coremakers..... | — | — | — | — | — | — | — | — | 1 | — | 3 | — |
| 5 | Dressmakers and seamstresses..... | — | 1 | — | — | — | 4 | — | 4 | 8 | 228 | 13 | 440 |
| 6 | Electricians and wiremen..... | 1 | — | — | — | 13 | — | 11 | — | 283 | — | 821 | — |
| 7 | Electroplaters..... | — | — | — | — | 1 | — | — | — | 8 | — | 49 | — |
| 8 | Furriers..... | — | — | — | — | — | — | — | — | 45 | 4 | 34 | 3 |
| 9 | Glove makers..... | — | — | — | — | — | — | — | — | — | — | 3 | — |
| 10 | Jewellers and watchmakers..... | — | — | — | — | 3 | — | — | — | 61 | 1 | 96 | — |
| 11 | Leather cutters..... | — | — | — | — | — | — | — | — | 3 | — | 14 | 1 |
| 12 | Machine operators..... | — | — | — | — | 5 | — | 2 | — | 145 | 1 | 565 | 9 |
| 13 | Machinists..... | 2 | — | — | — | 11 | — | 1 | — | 112 | 1 | 516 | 10 |
| 14 | Mechanics and repairmen..... | 1 | — | — | — | 8 | — | 9 | — | 398 | — | 973 | — |
| 15 | Metal fitters and assemblers..... | — | — | — | — | 16 | — | 5 | — | 233 | — | 1,001 | 10 |
| 16 | Milliners..... | — | — | — | — | — | — | — | — | 1 | 9 | — | 9 |
| 17 | Millwrights..... | — | — | — | — | — | — | — | — | 3 | — | 15 | — |
| 18 | Moulders..... | — | — | — | — | — | — | — | — | 40 | — | 118 | — |
| 19 | Painters, decorators, glaziers..... | 2 | — | — | — | 8 | — | 6 | — | 168 | — | 667 | — |
| 20 | Patternmakers..... | — | — | — | — | — | — | — | — | 14 | — | 55 | — |
| 21 | Photoengravers and lithographers..... | — | — | — | — | — | — | — | — | 5 | — | 27 | — |
| 22 | Plasterers and lathers..... | 2 | — | — | — | 1 | — | 3 | — | 36 | — | 126 | — |
| 23 | Plumbers and pipe fitters..... | — | — | 1 | — | 3 | — | 3 | — | 112 | — | 371 | — |
| 24 | Printing and pressmen and plate printers..... | — | — | — | — | 1 | — | 1 | — | 26 | 1 | 123 | — |
| 25 | Radio repairmen..... | 3 | — | — | — | 10 | — | 1 | — | 78 | 1 | 177 | 3 |
| 26 | Sawyers (wood)..... | — | — | — | — | — | — | — | — | 5 | — | 20 | — |
| 27 | Sheet metal workers and tin-smiths..... | 1 | — | — | — | 1 | — | 1 | — | 44 | — | 186 | — |
| 28 | Shoemakers and shoe repairers..... | — | — | — | — | 25 | — | 3 | — | 107 | — | 213 | — |
| 29 | Spinners and weavers..... | — | — | — | — | 1 | — | — | 1 | 4 | — | 56 | 27 |
| 30 | Stationary engineers..... | 1 | — | — | — | — | — | — | — | 24 | — | 124 | — |
| 31 | Stonecutters and dressers..... | — | — | — | — | — | — | — | — | 6 | — | 8 | — |
| 32 | Tailors..... | 1 | — | — | — | 4 | 1 | 1 | 1 | 163 | 16 | 306 | 64 |
| 33 | Tanners..... | — | — | — | — | — | — | — | — | 4 | — | 11 | — |
| 34 | Toolmakers, diemakers and setters..... | — | — | — | — | 2 | — | 2 | — | 75 | — | 523 | — |
| 35 | Upholsterers..... | — | — | — | — | 4 | — | — | — | 36 | 1 | 130 | — |
| 36 | Welders and flame cutters..... | 1 | — | — | — | 9 | — | 9 | — | 129 | 1 | 445 | — |
| 37 | Other workers in food products..... | 2 | — | — | — | 5 | — | — | — | 27 | 3 | 96 | 9 |
| 38 | Other workers in rubber products..... | — | — | — | — | — | — | — | — | 8 | — | 33 | — |
| 39 | Other workers in leather and leather products..... | 3 | — | — | — | — | — | 1 | — | 13 | — | 24 | 5 |
| 40 | Other workers in textiles..... | — | 1 | — | — | — | — | — | — | 34 | 9 | 76 | 44 |
| 41 | Other workers in clothing and textile goods..... | — | 3 | — | — | — | — | — | — | 25 | 44 | 37 | 175 |
| 42 | Other workers in wood products..... | 1 | — | — | — | 3 | — | 1 | 1 | 38 | 1 | 166 | 6 |
| 43 | Workers in pulp, paper and paper products..... | — | — | — | — | 1 | — | — | — | 8 | — | 15 | 3 |
| 44 | Other workers in printing and publishing..... | — | — | — | — | — | — | — | — | 13 | 4 | 53 | 22 |
| 45 | Other metal workers..... | — | — | — | — | 4 | — | — | — | 72 | — | 288 | 6 |
| 46 | Other workers in non-metallic mineral products..... | — | — | — | — | — | — | 1 | — | 19 | 1 | 107 | 2 |
| 47 | Other manufacturing and mechanical workers..... | — | — | — | — | 5 | — | 4 | 5 | 242 | 46 | 883 | 290 |
| 48 | Other construction workers..... | 1 | — | — | — | 9 | — | 2 | — | 54 | — | 197 | — |
| 49 | Labourers (other than agricultural, fishing, logging and mining) | 8 | — | — | — | 67 | 2 | 50 | 1 | 2,774 | 55 | 6,609 | 90 |
| 50 | Not Stated | 1 | 1 | — | — | 2 | — | — | — | 65 | 26 | 167 | 56 |
| | Totals, Workers | 151 | 55 | 41 | 10 | 651 | 230 | 372 | 85 | 13,341 | 5,481 | 36,332 | 12,449 |
| | Dependants— | | | | | | | | | | | | |
| 51 | Wives..... | — | 97 | — | 22 | — | 300 | — | 165 | — | 5,304 | — | 17,439 |
| 52 | Children..... | 59 | 48 | 16 | 9 | 208 | 165 | 102 | 92 | 3,374 | 3,037 | 11,355 | 10,573 |
| 53 | Others..... | 2 | 14 | 4 | 10 | 30 | 55 | 14 | 22 | 189 | 670 | 545 | 1,969 |
| | Totals, Immigration | 212 | 214 | 61 | 51 | 889 | 750 | 488 | 364 | 16,904 | 14,492 | 48,232 | 42,430 |

8.—Intended Destination and Occupation of Immigrants Admitted to Canada 1956—concl.

| Intended Destination | | | | | | | | | | | | Canada | | | No. |
|----------------------|--------|--------|--------|--------|--------|--------|--------|------------------|--------|---------------|--------|--------|--------|---------|-----|
| Man. | | Sask. | | Alta. | | B.C. | | Yukon and N.W.T. | | Not Specified | | M. | F. | Total | |
| M. No. | F. No. | M. No. | F. No. | M. No. | F. No. | M. No. | F. No. | M. No. | F. No. | M. No. | F. No. | | | | |
| 126 | — | 45 | — | 237 | — | 451 | — | 1 | — | 54 | — | 2,821 | — | 2,821 | 1 |
| 8 | — | 2 | — | 3 | — | 19 | — | — | — | 5 | — | 190 | — | 190 | 2 |
| 6 | — | 5 | — | 24 | — | 25 | — | 3 | — | 6 | — | 179 | — | 179 | 3 |
| — | — | — | — | — | — | — | — | — | — | — | — | 4 | — | 4 | 4 |
| 4 | 35 | — | 6 | 1 | 28 | 5 | 63 | — | — | 2 | 34 | 33 | 843 | 876 | 5 |
| 62 | — | 20 | — | 87 | — | 165 | — | 1 | — | 101 | — | 1,565 | — | 1,565 | 6 |
| — | — | — | — | — | — | 12 | — | — | — | — | — | 70 | — | 70 | 7 |
| 10 | 1 | 1 | — | — | 1 | 4 | 2 | — | — | 9 | 1 | 103 | 12 | 115 | 8 |
| — | — | — | — | 1 | — | — | — | — | — | — | — | 4 | 1 | 5 | 9 |
| 7 | — | 1 | — | 10 | — | 18 | 1 | — | — | 6 | 2 | 202 | 4 | 206 | 10 |
| — | — | — | — | 1 | — | 1 | — | — | — | — | — | 19 | 1 | 20 | 11 |
| 33 | 1 | 4 | — | 39 | 1 | 64 | — | — | — | 105 | 2 | 962 | 14 | 976 | 12 |
| 39 | — | 6 | — | 50 | — | 85 | 2 | — | — | 42 | — | 864 | 14 | 878 | 13 |
| 72 | — | 30 | — | 117 | — | 187 | — | 1 | — | 146 | — | 1,942 | — | 1,942 | 14 |
| 55 | — | 11 | — | 78 | — | 161 | — | 1 | — | 93 | 2 | 1,654 | 12 | 1,666 | 15 |
| — | — | — | — | — | — | 1 | 2 | — | — | — | 4 | 3 | 24 | 27 | 16 |
| — | — | — | — | 1 | — | 4 | — | — | — | 2 | — | 25 | — | 25 | 17 |
| 6 | — | — | — | — | — | 13 | — | — | — | 5 | — | 182 | — | 182 | 18 |
| 66 | — | 23 | — | 84 | — | 158 | — | — | — | 24 | — | 1,206 | — | 1,206 | 19 |
| 3 | — | — | — | 5 | — | 3 | — | — | — | 1 | — | 81 | — | 81 | 20 |
| 3 | — | — | — | 1 | — | 3 | — | — | — | — | — | 39 | — | 39 | 21 |
| 8 | — | 4 | — | 14 | — | 21 | — | — | — | 2 | — | 217 | — | 217 | 22 |
| 52 | — | 11 | — | 68 | — | 104 | — | 1 | — | 26 | — | 752 | — | 752 | 23 |
| 9 | — | 1 | — | 3 | — | 11 | — | — | — | 5 | — | 180 | 1 | 181 | 24 |
| 8 | — | 1 | — | 6 | — | 29 | — | — | — | 12 | — | 325 | 4 | 329 | 25 |
| 1 | — | 2 | — | 1 | — | 15 | — | — | — | — | — | 44 | — | 44 | 26 |
| 12 | — | 2 | — | 15 | — | 24 | — | — | — | 4 | — | 290 | — | 290 | 27 |
| 22 | — | 8 | — | 18 | — | 45 | — | — | — | 15 | — | 456 | — | 456 | 28 |
| 2 | — | — | — | 2 | 2 | 5 | 1 | — | — | 7 | 10 | 77 | 41 | 118 | 29 |
| 5 | — | 1 | — | 12 | — | 25 | — | — | — | 4 | — | 196 | — | 196 | 30 |
| — | — | — | — | — | — | 1 | — | — | — | 1 | — | 16 | — | 16 | 31 |
| 41 | 4 | 5 | 4 | 10 | 6 | 38 | 6 | — | — | 40 | 2 | 609 | 104 | 713 | 32 |
| 3 | — | — | — | 4 | — | — | — | — | — | 1 | — | 23 | — | 23 | 33 |
| 14 | — | 6 | — | 17 | — | 49 | — | — | — | 30 | — | 718 | — | 718 | 34 |
| 10 | — | 3 | — | 24 | — | 13 | — | — | — | 8 | 1 | 228 | 9 | 237 | 35 |
| 46 | — | 15 | — | 78 | — | 108 | — | — | — | 28 | 1 | 868 | 2 | 870 | 36 |
| 17 | — | 1 | — | 12 | — | 16 | — | — | — | 7 | 1 | 183 | 13 | 196 | 37 |
| — | — | 1 | — | 1 | — | 2 | — | — | — | — | — | 45 | — | 45 | 38 |
| 3 | 1 | 1 | — | 2 | 2 | 3 | 1 | — | — | 5 | 3 | 55 | 12 | 67 | 39 |
| 5 | — | 3 | — | 4 | 5 | 9 | 4 | — | — | 19 | 17 | 150 | 80 | 230 | 40 |
| 7 | 10 | — | 1 | 5 | 5 | 15 | — | — | — | 6 | 9 | 81 | 262 | 343 | 41 |
| 14 | — | 2 | — | 9 | — | 55 | — | — | — | 7 | — | 296 | 8 | 304 | 42 |
| 2 | — | — | — | 2 | — | 15 | — | — | — | — | — | 43 | 3 | 46 | 43 |
| 6 | 2 | 2 | — | 2 | 1 | 8 | 3 | — | 1 | 4 | 3 | 88 | 36 | 124 | 44 |
| 18 | — | 3 | — | 11 | — | 42 | 1 | — | — | 22 | — | 460 | 7 | 467 | 45 |
| 9 | — | 3 | — | 32 | 2 | 24 | 1 | — | — | 6 | 3 | 201 | 9 | 210 | 46 |
| 31 | 8 | 8 | 3 | 59 | 10 | 136 | 19 | — | — | 57 | 20 | 1,425 | 401 | 1,826 | 47 |
| 12 | — | 7 | — | 30 | — | 57 | — | — | — | 9 | — | 378 | — | 378 | 48 |
| 433 | 10 | 142 | 1 | 650 | 4 | 1,146 | 20 | 6 | — | 407 | 7 | 12,292 | 190 | 12,482 | 49 |
| 11 | 3 | 3 | 1 | 14 | 12 | 33 | 12 | — | 1 | 23 | 4 | 319 | 116 | 435 | 50 |
| 2,605 | 648 | 938 | 255 | 4,260 | 928 | 7,457 | 2,028 | 38 | 14 | 2,191 | 479 | 68,377 | 22,662 | 91,039 | |
| — | 984 | — | 430 | — | 1,894 | — | 3,361 | — | 27 | — | 524 | — | 30,547 | 30,547 | 51 |
| 728 | 681 | 277 | 222 | 1,355 | 1,206 | 2,257 | 2,031 | 17 | 14 | 347 | 288 | 20,095 | 18,366 | 38,461 | 52 |
| 21 | 129 | 19 | 61 | 56 | 260 | 156 | 522 | — | 8 | 33 | 21 | 1,069 | 3,741 | 4,810 | 53 |
| 3,354 | 2,442 | 1,234 | 968 | 5,671 | 4,288 | 9,870 | 7,942 | 55 | 63 | 2,571 | 1,312 | 89,541 | 75,316 | 164,857 | |

INTENDED DESTINATIONS AND OCCUPATIONS OF IMMIGRANTS ADMITTED TO CANADA, 1956



Deportations.—Persons unable to meet the requirements of the Immigration Act and Regulations may be refused admission to Canada upon applying at ports of entry. Certain classes not considered suited to the Canadian way of life may be deported (*see* pp. 170-176).

9.—Refusals and Deportations by Cause and Nationality 1954-56

NOTE.—Figures from 1903 are given in the corresponding table of previous Year Books.

| Cause and Nationality | Refusals | | | Cause and Nationality | Deportations After Admission ¹ | | |
|-----------------------------|----------|-------|-------|------------------------------------|---|------|------|
| | 1954 | 1955 | 1956 | | 1954 | 1955 | 1956 |
| From Overseas— | No. | No. | No. | CAUSE | No. | No. | No. |
| CAUSE | | | | | | | |
| Mental and medical..... | 41 | 60 | 11 | Mental and medical..... | 74 | 125 | 91 |
| Civil..... | 283 | 123 | 103 | Public charges..... | 2 | 23 | 21 |
| NATIONALITY | | | | Criminality..... | 210 | 192 | 164 |
| British..... | 100 | 119 | 82 | Misrepresentation and stealth..... | 249 | 282 | 249 |
| Other..... | 224 | 64 | 32 | Other causes..... | 118 | 81 | 79 |
| Totals from Overseas..... | 324 | 183 | 114 | NATIONALITY | | | |
| From United States..... | 1,821 | 1,751 | 1,353 | British..... | 249 | 227 | 212 |
| Grand Totals, Refusals..... | 2,145 | 1,934 | 1,467 | United States..... | 88 | 124 | 123 |
| | | | | Other..... | 316 | 352 | 269 |
| | | | | Grand Totals, Deportations..... | 653 | 703 | 604 |

¹ Includes deserting seamen deported.

Returning Canadians.—The number of Canadians who returned to Canada during the years 1950 to 1956 after having resided in the United States were as follows: 1950, 3,518; 1951, 3,635; 1952, 4,707; 1953, 4,606; 1954, 4,516; 1955, 3,942; and 1956, 4,740.

Section 2.—Emigration Statistics

Emigration from Canada is an important factor tending to offset to some extent both present and past immigration activities. The movement to the United States of native-born Canadians as well as of Europeans who originally migrated to Canada attained considerable proportions at certain periods. The figures of Table 10, showing the numbers of persons entering the United States from Canada during the years 1947-56 were obtained from the Immigration and Naturalization Service of the United States Department of Justice. No Canadian statistics on emigration are available.

10.—Persons Entering the United States from Canada, Years Ended June 30, 1947-56

SOURCE: Immigration and Naturalization Service, United States Department of Justice.

| Year | Immigrant Aliens from Canada | U.S. Citizens Returning from Canada | Persons Departed from Canada | Total |
|-----------|------------------------------|-------------------------------------|------------------------------|--------|
| | No. | No. | No. | No. |
| 1947..... | 23,467 | 5,003 | 589 | 29,059 |
| 1948..... | 24,788 | 4,946 | 512 | 30,246 |
| 1949..... | 25,156 | 5,787 | 425 | 31,368 |
| 1950..... | 21,885 | 3,859 | 476 | 26,220 |
| 1951..... | 25,880 | 4,303 | 315 | 30,498 |
| 1952..... | 33,354 | 4,012 | 343 | 37,709 |
| 1953..... | 36,283 | 2,846 | 351 | 39,480 |
| 1954..... | 34,873 | 2,091 | 734 | 37,698 |
| 1955..... | 32,435 | 2,263 | 964 | 35,662 |
| 1956..... | 42,363 | .. | .. | .. |

¹ Newfoundland included from 1949.

PART II.—CANADIAN CITIZENSHIP*

Naturalization procedures and events leading to the passing of the Canadian Citizenship Act are given in the 1951 Year Book, pp. 153-155.

Section 1.—The Canadian Citizenship Act

The Canadian Citizenship Act came into force on Jan. 1, 1947, its purpose being to give a clear definition of Canadian citizenship and provide an underlying community of status for all the people of Canada. Since Jan. 18, 1950, the administration of Canadian citizenship has been the responsibility of the Department of Citizenship and Immigration. The provisions of the Act and its several amendments are outlined in some detail in the 1955 Year Book, pp. 177-181. More briefly, they are given in the following paragraphs.

Natural-Born Canadian Citizens, Born before Jan. 1, 1947.—The Act defines the two categories of natural-born Canadian citizens as (1) a person born in Canada or on a Canadian ship or aircraft; (2) a person born outside of Canada before Jan. 1, 1947, if the responsible parent (the father or, where the father is deceased or where the child is born out of wedlock, the mother) is a Canadian citizen, if he was, on Jan. 1, 1947, either a minor or had, prior to that date, been lawfully admitted to Canada for permanent residence and had not, before that date, acquired the citizenship or nationality of another country.

The Act provides that a person in the second category will cease to be a Canadian citizen on attaining the age of 24 years or on Jan. 1, 1954, whichever is the later date, unless he has his place of domicile in Canada at such date or has, before such date and after reaching the age of 21 years, filed a declaration of retention of Canadian citizenship.

Natural-Born Canadian Citizens, Born after Dec. 31, 1946.—A person born outside of Canada subsequent to that date, whose responsible parent is considered a Canadian citizen pursuant to the terms of the Canadian Citizenship Act, is a Canadian if his birth is registered with the Registrar of Canadian Citizenship within two years of its occurrence or within such extended period as the Minister may authorize in special cases.

The person who becomes a Canadian citizen in such manner automatically ceases to be a Canadian citizen on reaching the age of 24 years unless he complies with the requirements as set out for a person born outside of Canada before Jan. 1, 1947, who was still a minor on that date.

Canadian Citizens other than Natural Born.—Before the 1953 amendments to the Citizenship Act the only persons who acquired Canadian citizenship on Jan. 1, 1947, through the transitional clauses of Sect. 9 were persons who were naturalized in Canada before that date, British subjects who had Canadian domicile at the commencement of the Act and women lawfully admitted to Canada and married prior to Jan. 1, 1947, whose husbands would have qualified as Canadian citizens if the Act had come into force before the date of marriage. Sect. 9 was amended on June 1, 1953, so that a British subject who had his place of domicile in Canada for at least 20 years immediately before Jan. 1, 1947, need not comply with the requirements of Canadian domicile provided he was not under an order of deportation on Jan. 1, 1947.

Status of Married Women.—Since the commencement of the Canadian Citizenship Act a Canadian woman does not lose Canadian citizenship upon marriage to a non-Canadian and a non-Canadian woman does not become a Canadian citizen upon marriage to a Canadian citizen. However, a Canadian woman who marries a non-Canadian whose country of allegiance considers her to have acquired its nationality upon marriage may file a Declaration of Renunciation of Canadian citizenship if she wishes to divest herself of her Canadian citizenship. A non-Canadian woman who marries a Canadian citizen must apply to the court for a certificate of citizenship. If she is a citizen of another

* Prepared in the Canadian Citizenship Branch under the direction of Laval Fortier, Deputy Minister, Department of Citizenship and Immigration, Ottawa.

Commonwealth country she may apply direct to the Minister. The one concession as to the qualifications applicable in both instances is a residence of only one year in Canada rather than the prescribed five years of Canadian domicile.

A Canadian woman who married a non-Canadian prior to Jan. 1, 1947, and ceased to be a British subject may regain her status and be readmitted to Canadian citizenship upon application therefor, whether or not she is a resident of Canada.

Status of Minor Children.—The minor child of a Canadian citizen other than a natural-born Canadian may receive a certificate of Canadian citizenship upon application therefor by his or her responsible parent, the *de facto* guardian, or the mother if she has custody of the child. Provision is also made in the Citizenship Act for the granting of a certificate of citizenship to a minor child in special circumstances, e.g., to a child whose responsible parent is not a Canadian citizen but who has been admitted to Canada for permanent residence. Provision is made for the granting of a certificate to a person who has been adopted or legitimized and who has been admitted to Canada for permanent residence, if the adopter or the legally recognized father is a Canadian citizen.

Loss of Canadian Citizenship.—Canadian citizenship may be lost as follows:—

- (1) A Canadian citizen who when outside of Canada and not under disability (minor, lunatic or idiot) acquires by a voluntary and formal act other than marriage the nationality or citizenship of a country other than Canada. This does not apply if that country is at war with Canada at the time of acquisition but in such a case the Minister may order that he cease to be a Canadian citizen. The purpose of this is to hold the person, if deemed necessary, to his obligations as a Canadian.
- (2) A Canadian citizen who under the law of another country is a national or citizen of such country and who serves in the armed forces of such country when it is at war with Canada. This does not apply if the Canadian citizen became a national or citizen of such country when it was at war with Canada.
- (3) A Canadian citizen, other than natural born or one who has served in the Armed Forces of Canada in time of war, or other related circumstances, who resides outside of Canada for ten consecutive years without maintaining substantial connection with Canada, loses his citizenship automatically, but the period of absence may upon application be extended beyond the ten years for good and sufficient cause.

Loss of Citizenship by Revocation—Applicable Only to Naturalized Persons.—The citizenship of a Canadian citizen other than a natural-born Canadian citizen may be revoked by the Governor in Council for such reasons as trading or communicating with an enemy country during time of war; disaffection or disloyalty while out of Canada or conviction by a court of competent jurisdiction of any offence involving disaffection or disloyalty while in Canada; obtaining a certificate of naturalization or Canadian citizenship by false representation or fraud; residence outside of Canada for not less than six years (without maintenance of substantial connection) since becoming a Canadian citizen or being naturalized in Canada; residence for not less than two years (without maintenance of substantial connection) in a foreign country of which he was a national or citizen at any time prior to his becoming a Canadian citizen or being naturalized in Canada.

Loss of Citizenship by Revocation—Applicable to Both Natural-Born and Naturalized Persons.—The Governor in Council may in his discretion order that any person shall cease to be a Canadian citizen if, upon a report from the Minister of Citizenship and Immigration, he is satisfied that such person has, when not under a disability (1) acquired voluntarily the citizenship of a foreign country (other than by marriage), (2) taken or made an oath, affirmation, or other declaration of allegiance to a foreign country, or (3) made a declaration renouncing his Canadian citizenship.

Section 2.—Canadian Citizenship Statistics

Results of the 1951 Census show that 96.9 p.c. of the people of Canada were Canadian citizens; that 0.7 p.c. were citizens of other Commonwealth countries; 1.7 p.c. of European countries; 0.1 p.c. of Asiatic countries; 0.5 p.c. of the United States; and 0.1 p.c. of other countries. Table 1, classifying the 1951 population by country of allegiance and origin,

shows that 98.0 p.c. of the persons of British Isles origins and 99.7 p.c. of those of French origin owed allegiance to Canada. Corresponding percentages for other European and Asiatic origins were 89.3 p.c. and 78.7 p.c., respectively.

1.—Population by Country of Allegiance and Origin 1951

| Origin | Country of Allegiance | | | | | Total |
|----------------------------------|-----------------------|-------------------------------|---------------|--------------------|------------------------------|-------------------|
| | Canada | Other Common-wealth Countries | United States | European Countries | Other Countries ¹ | |
| | No. | No. | No. | No. | No. | No. |
| British Isles ² | 6,577,849 | 95,567 | 34,229 | 1,524 | 516 | 6,709,685 |
| French..... | 4,304,972 | 763 | 8,370 | 4,896 | 166 | 4,319,167 |
| Other European..... | 2,279,704 | 6,609 | 22,025 | 229,311 | 16,073 | 2,553,722 |
| German..... | 586,597 | 631 | 8,203 | 21,739 | 2,825 | 619,995 |
| Italian..... | 126,767 | 1,640 | 878 | 22,712 | 248 | 152,245 |
| Jewish..... | 161,968 | 1,475 | 2,811 | 12,305 | 3,111 | 181,670 |
| Netherlands..... | 227,552 | 312 | 2,327 | 33,032 | 1,044 | 264,267 |
| Polish..... | 179,960 | 661 | 845 | 36,890 | 1,489 | 219,845 |
| Russian..... | 83,643 | 181 | 459 | 6,451 | 545 | 91,279 |
| Scandinavian ³ | 268,904 | 311 | 4,218 | 9,426 | 165 | 283,024 |
| Ukrainian..... | 366,160 | 225 | 305 | 25,069 | 3,284 | 395,043 |
| Other..... | 278,153 | 1,173 | 1,979 | 61,687 | 3,362 | 346,354 |
| Asiatic..... | 57,325 | 417 | 220 | 104 | 14,761 | 72,827 |
| Native Indian and Eskimo..... | 165,359 | 45 | 169 | 17 | 17 | 165,607 |
| Other and not stated..... | 182,730 | 670 | 3,987 | 638 | 396 | 188,421 |
| Totals, All Origins..... | 13,567,939 | 104,071 | 69,000 | 236,490 | 31,929 | 14,009,429 |

¹ Includes persons reported as "stateless".

² Includes English, Irish, Scottish, Welsh and Manx.

³ Includes Danish, Icelandic, Norwegian and Swedish.

Citizenship Certificates Issued.—In 1956, 79,971 Canadian Citizenship Certificates were issued as compared with 73,378 in 1955. During 1956 the Canadian Citizenship Registration Branch recorded 3,868 certificates of registration of births abroad, 1,176 declarations of intention, 116 declarations of retention of Canadian citizenship, and one petition for resumption of Canadian citizenship. Certificates issued free to persons who had had active military service numbered 201. Corresponding figures for 1955 were 4,128 registrations of births abroad, 1,840 declarations of intention, 92 declarations of retention of Canadian citizenship, 12 petitions for resumption, and 144 certificates issued free to persons who had had active military service.

2.—Citizenship Certificates Issued by Status of Recipient 1954-56

| Section of 1947 Act | Classification | 1954 | 1955 | 1956 |
|---------------------|---|---------------|---------------|---------------|
| | | No. | No. | No. |
| Sect. 34 (1) (i) | Certificates of Proof of Status— | | | |
| | Canadian citizens by birth..... | 1,439 | 1,562 | 1,206 |
| | By naturalization under former Acts..... | 3,396 | 2,873 | 2,147 |
| | British subjects with 5 years domicile before Jan. 1, 1947..... | 1,611 | 1,337 | 1,243 |
| | Women, through marriage..... | 888 | 540 | 437 |
| Sect. 10 (2) | British subjects with 5 years domicile after Jan. 1, 1947..... | 3,092 | 3,252 | 5,023 |
| Sect. 10 (1) | Aliens..... | 13,770 | 48,188 | 42,028 |
| Sect. 10 (5) | Minors whose parents have been granted Certificates..... | 1,896 | 6,605 | 7,762 |
| Sect. 11 (3) | Minors under special circumstances..... | 90 | 90 | 101 |
| Sect. 10 (3) | Women who regained lost Canadian citizenship through marriage.... | 533 | 373 | 296 |
| Sect. 10 (4) | Canadians who regained lost status by naturalization outside Canada... | 134 | 147 | 104 |
| Sect. 11 (1) | Doubtful cases who now have been awarded Certificates..... | 5 | 6 | 8 |
| Sect. 11 (2) | Adopted and legitimated persons..... | 31 | 60 | 88 |
| | Replacement Certificates..... | 92 | 943 | 1,078 |
| | Miniature certificates of citizenship (issued since Oct. 18, 1955, to Canadian citizens)..... | — | 7,402 | 18,450 |
| | Totals..... | 26,977 | 73,378 | 79,971 |

Characteristics of Persons Granted Citizenship Certificates in 1956.—Comparable detailed statistics showing the characteristics of persons granted citizenship certificates are available since 1953; such characteristics include age, marital status, occupation, period of immigration, residence and previous nationality.

Of the total of 55,404 persons granted citizenship in 1956 only 2 p.c. had immigrated to Canada before 1921, 5 p.c. from 1921 to 1940, 64 p.c. in the period 1941 to 1950 and 29 p.c. since 1950. Regionally these new citizens were distributed as follows: 1.0 p.c. in the Atlantic Provinces, 17.2 p.c. in Quebec, 60.1 p.c. in Ontario, 12.5 p.c. in the Prairie Provinces and 8.9 p.c. in British Columbia. Just over 84 p.c. of them resided in urban centres as compared with 62 p.c. of the total population of Canada at the time of the 1951 Census.

Almost 60 p.c. of the persons naturalized during 1956 were males. Young persons under 20 years of age constituted 13 p.c. of the total, persons 20 to 44 accounted for 63 p.c., those 45 to 64 for 22 p.c. and those 65 or over for 2 p.c. Over 13 p.c. of those naturalized in 1956 formerly had been citizens of Poland. Italy had been the country of allegiance for 11 p.c., Commonwealth countries for 10 p.c. and the Netherlands for 8 p.c. Of the 8,181 who reported themselves as stateless when applying for Canadian citizenship, more than half had been born within the present boundaries of the U.S.S.R.—about 15 p.c. in Poland and 7 p.c. in each of Czechoslovakia, Hungary and Yugoslavia.

Of all the males granted citizenship certificates in 1956, 25 p.c. were employed in manufacturing and mechanical occupations, 12 p.c. were labourers in other than primary industries, 10 p.c. were employed in construction, 8 p.c. in professional occupations, 7 p.c. in service, 6 p.c. in agriculture and 5 p.c. in proprietary and managerial occupations. Of all the females granted certificates, 56 p.c. were homemakers. Among those employed outside the home, 9 p.c. were in manufacturing and mechanical occupations, 7 p.c. in clerical jobs and 6 p.c. in service occupations.

3.—Persons Granted Citizenship Certificates in 1955 and 1956 by Period of Immigration to Canada and by Province of Residence

| Residence | Period of Immigration | | | | | Born in Canada ¹ | Total |
|---------------------------------------|-----------------------|--------------|--------------|---------------|---------------|-----------------------------|---------------|
| | Before 1921 | 1921-1930 | 1931-1940 | 1941-1950 | 1951-1955 | | |
| 1955 | No. | No. | No. | No. | No. | No. | No. |
| Residing in Canada | 2,282 | 3,674 | 1,199 | 48,854 | 2,431 | 209 | 58,649 |
| Newfoundland..... | 2 | 3 | 6 | 50 | 13 | — | 75 |
| Prince Edward Island..... | 3 | 1 | — | 24 | 2 | 1 | 30 |
| Nova Scotia..... | 34 | 35 | 12 | 244 | 39 | 5 | 369 |
| New Brunswick..... | 9 | 17 | 1 | 69 | 14 | 5 | 115 |
| Quebec..... | 353 | 621 | 184 | 8,611 | 262 | 26 | 10,057 |
| Ontario..... | 598 | 1,342 | 511 | 30,033 | 1,263 | 77 | 33,824 |
| Manitoba..... | 200 | 320 | 104 | 2,943 | 57 | 22 | 3,646 |
| Saskatchewan..... | 200 | 267 | 53 | 627 | 157 | 11 | 1,315 |
| Alberta..... | 286 | 563 | 162 | 2,648 | 141 | 29 | 3,829 |
| British Columbia..... | 596 | 495 | 162 | 3,555 | 481 | 33 | 5,322 |
| Yukon and N.W.T..... | 1 | 10 | 4 | 50 | 2 | — | 67 |
| Residing outside Canada | 1 | 1 | — | 23 | 7 | 30 | 62 |
| Totals Naturalized, 1955 | 2,283 | 3,675 | 1,199 | 48,877 | 2,438 | 239 | 58,711 |
| 1956 | No. | No. | No. | No. | No. | No. | No. |
| Residing in Canada | 1,125 | 2,089 | 791 | 35,286 | 15,878 | 176 | 55,345 |
| Newfoundland..... | 1 | 2 | 1 | 56 | 40 | — | 100 |
| Prince Edward Island..... | — | — | — | 20 | 8 | — | 28 |
| Nova Scotia..... | 17 | 14 | 19 | 179 | 80 | 4 | 313 |
| New Brunswick..... | 7 | 6 | 2 | 63 | 32 | 2 | 112 |
| Quebec..... | 158 | 307 | 109 | 5,555 | 3,357 | 31 | 9,517 |
| Ontario..... | 318 | 803 | 365 | 21,762 | 10,010 | 67 | 33,325 |
| Manitoba..... | 78 | 199 | 51 | 1,904 | 334 | 13 | 2,579 |
| Saskatchewan..... | 75 | 152 | 26 | 549 | 190 | 12 | 1,004 |
| Alberta..... | 171 | 323 | 122 | 2,243 | 453 | 20 | 3,332 |
| British Columbia..... | 297 | 277 | 91 | 2,900 | 1,348 | 27 | 4,940 |
| Yukon and N.W.T..... | 3 | 6 | 5 | 55 | 26 | — | 95 |
| Residing outside Canada | 1 | — | — | 15 | 11 | 32 | 59 |
| Totals Naturalized, 1956 | 1,126 | 2,089 | 791 | 35,301 | 15,889 | 208 | 55,404 |

¹ Canadian born who lost their citizenship by marriage; this applies to females only.

4.—Persons Granted Citizenship Certificates in 1955 and 1956, by Age Group and Sex

| Age Group | 1955 | | | 1956 | | |
|------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | Males | Females | Total | Males | Females | Total |
| | No. | No. | No. | No. | No. | No. |
| 0 - 4 Years..... | 11 | 11 | 22 | 18 | 24 | 42 |
| 5 - 9 "..... | 1,192 | 1,102 | 2,294 | 1,281 | 1,212 | 2,493 |
| 10 - 14 "..... | 917 | 860 | 1,777 | 1,303 | 1,168 | 2,471 |
| 15 - 19 "..... | 1,174 | 815 | 1,989 | 1,315 | 1,081 | 2,396 |
| 20 - 24 "..... | 2,192 | 1,412 | 3,604 | 2,357 | 1,435 | 3,792 |
| 25 - 29 "..... | 4,060 | 3,385 | 7,445 | 4,376 | 2,792 | 7,168 |
| 30 - 34 "..... | 6,595 | 4,520 | 11,115 | 6,345 | 4,157 | 10,502 |
| 35 - 39 "..... | 4,464 | 2,753 | 7,217 | 4,530 | 2,577 | 7,107 |
| 40 - 44 "..... | 4,807 | 2,543 | 7,350 | 3,919 | 2,250 | 6,169 |
| 45 - 49 "..... | 3,463 | 2,281 | 5,744 | 2,944 | 1,959 | 4,903 |
| 50 - 54 "..... | 2,292 | 1,729 | 4,021 | 1,890 | 1,554 | 3,444 |
| 55 - 59 "..... | 1,571 | 1,159 | 2,730 | 1,267 | 1,110 | 2,377 |
| 60 - 64 "..... | 1,070 | 667 | 1,737 | 749 | 557 | 1,306 |
| 65 - 69 "..... | 691 | 368 | 1,059 | 444 | 308 | 752 |
| 70 - 74 "..... | 288 | 145 | 433 | 195 | 132 | 327 |
| 75+ "..... | 108 | 66 | 174 | 93 | 62 | 155 |
| Totals, All Ages..... | 34,895 | 23,816 | 58,711 | 33,026 | 22,378 | 55,404 |

5.—Persons Granted Citizenship Certificates in 1955 and 1956, by Sex and Occupation

| Occupation | 1955 | | | 1956 | | |
|--|---------------|---------------|---------------|---------------|---------------|---------------|
| | Males | Females | Total | Males | Females | Total |
| | No. | No. | No. | No. | No. | No. |
| Proprietary and managerial..... | 1,840 | 150 | 1,990 | 1,652 | 178 | 1,830 |
| Professional..... | 2,170 | 879 | 3,049 | 2,490 | 634 | 3,124 |
| Clerical..... | 809 | 1,319 | 2,128 | 1,044 | 1,481 | 2,525 |
| Transportation and communication..... | 1,166 | 32 | 1,198 | 1,212 | 34 | 1,246 |
| Commercial and financial..... | 1,119 | 389 | 1,508 | 1,088 | 306 | 1,394 |
| Service..... | 2,285 | 1,738 | 4,023 | 2,160 | 1,433 | 3,593 |
| Agricultural..... | 2,577 | 49 | 2,626 | 1,931 | 31 | 1,962 |
| Fishing, trapping, logging..... | 270 | — | 270 | 221 | — | 221 |
| Mining..... | 710 | 1 | 711 | 715 | — | 715 |
| Manufacturing and mechanical..... | 9,541 | 2,456 | 11,997 | 8,345 | 1,904 | 10,249 |
| Construction..... | 3,456 | 4 | 3,460 | 3,295 | 8 | 3,303 |
| Labourers, not in primary industries..... | 4,380 | 40 | 4,420 | 3,874 | 17 | 3,891 |
| Homemakers..... | — | 13,534 | 13,534 | — | 12,603 | 12,603 |
| No occupation (including students, retired, etc.)..... | 802 | 913 | 1,715 | 628 | 153 | 781 |
| Children under 14 years of age..... | 2,099 | 1,945 | 4,044 | 2,450 | 2,253 | 4,703 |
| Not stated ¹ | 1,671 | 967 | 2,638 | 1,921 | 1,343 | 3,264 |
| Totals, All Occupations..... | 34,895 | 23,816 | 58,711 | 33,026 | 22,378 | 55,404 |

¹ Mainly children over 14 years of age.

6.—Persons Granted Citizenship Certificates in 1955 and 1956, by Sex and Country of Birth

| Country of Birth | 1955 | | | Country of Birth | 1956 | | |
|---------------------|-------|---------|-------|----------------------|-------|---------|-------|
| | Males | Females | Total | | Males | Females | Total |
| | No. | No. | No. | | No. | No. | No. |
| Albania..... | 22 | — | 22 | Albania..... | 19 | 2 | 21 |
| Argentina..... | 5 | 5 | 10 | Argentina..... | 8 | 5 | 13 |
| Australia..... | 27 | 21 | 48 | Australia..... | 33 | 26 | 59 |
| Austria..... | 761 | 541 | 1,302 | Austria..... | 501 | 472 | 973 |
| Belgium..... | 385 | 290 | 675 | Belgium..... | 331 | 291 | 622 |
| Bermuda..... | 8 | 4 | 12 | Brazil..... | 9 | 7 | 16 |
| Brazil..... | 15 | 9 | 24 | British Guiana..... | 22 | 13 | 35 |
| British Guiana..... | 25 | 8 | 33 | Bulgaria..... | 103 | 24 | 127 |
| Bulgaria..... | 46 | 22 | 68 | Canada..... | 39 | 295 | 334 |
| Canada..... | 50 | 370 | 420 | Channel Islands..... | 6 | 4 | 10 |
| China..... | 1,884 | 564 | 2,448 | China..... | 1,229 | 557 | 1,786 |
| Cuba..... | 5 | 5 | 10 | Cuba..... | 6 | 4 | 10 |
| Czechoslovakia..... | 1,432 | 1,062 | 2,494 | Czechoslovakia..... | 1,362 | 870 | 2,232 |
| Danzig..... | 6 | 10 | 16 | Danzig..... | 11 | 9 | 20 |

6.—Persons Granted Citizenship Certificates in 1955 and 1956, by Sex and Country of Birth —concluded

| Country of Birth | 1955 | | | Country of Birth | 1956 | | |
|-----------------------------------|---------------|---------------|---------------|-----------------------------------|---------------|---------------|---------------|
| | Males | Females | Total | | Males | Females | Total |
| | No. | No. | No. | | No. | No. | No. |
| Denmark..... | 329 | 141 | 470 | Denmark..... | 424 | 192 | 616 |
| Egypt..... | 13 | 6 | 19 | Egypt..... | 18 | 13 | 31 |
| Finland..... | 174 | 197 | 371 | Finland..... | 160 | 177 | 337 |
| France..... | 236 | 152 | 388 | France..... | 362 | 231 | 593 |
| Germany..... | 859 | 1,163 | 2,022 | Germany..... | 1,387 | 1,558 | 2,945 |
| Greece..... | 294 | 197 | 491 | Greece..... | 567 | 253 | 820 |
| Hungary..... | 1,249 | 909 | 2,158 | Hong Kong..... | 19 | 13 | 32 |
| Iceland..... | 6 | 5 | 11 | Hungary..... | 1,503 | 1,009 | 2,512 |
| India..... | 64 | 68 | 132 | India..... | 93 | 57 | 150 |
| Indonesia..... | 7 | 9 | 16 | Indonesia..... | 22 | 15 | 37 |
| Iraq..... | 6 | 5 | 11 | Iraq..... | 11 | 4 | 15 |
| Ireland (Republic)..... | 153 | 126 | 279 | Ireland (Republic)..... | 195 | 116 | 311 |
| Israel..... | 6 | 8 | 14 | Israel..... | 15 | 19 | 34 |
| Italy..... | 3,440 | 1,147 | 4,587 | Italy..... | 4,559 | 1,712 | 6,271 |
| Japan..... | 133 | 122 | 255 | Japan..... | 55 | 85 | 140 |
| Lebanon..... | 32 | 24 | 56 | Lebanon..... | 37 | 37 | 74 |
| Malta..... | 30 | 4 | 34 | Malta..... | 62 | 16 | 78 |
| Mexico..... | 7 | 5 | 12 | Netherlands..... | 2,450 | 1,682 | 4,132 |
| Netherlands..... | 2,099 | 1,428 | 3,527 | Netherlands East Indies..... | 12 | 9 | 21 |
| New Zealand..... | 14 | 7 | 21 | New Zealand..... | 14 | 8 | 22 |
| Norway..... | 183 | 83 | 266 | Norway..... | 112 | 66 | 178 |
| Palestine..... | 10 | 4 | 14 | Palestine..... | 12 | 8 | 20 |
| Poland..... | 10,388 | 6,419 | 16,807 | Poland..... | 5,378 | 3,585 | 8,963 |
| Romania..... | 799 | 663 | 1,462 | Romania..... | 758 | 542 | 1,300 |
| South Africa..... | 16 | 13 | 29 | South Africa..... | 21 | 18 | 39 |
| Spain..... | 5 | 10 | 15 | Spain..... | 16 | 13 | 29 |
| Sweden..... | 147 | 72 | 219 | Sweden..... | 139 | 80 | 219 |
| Switzerland..... | 198 | 91 | 289 | Switzerland..... | 196 | 100 | 296 |
| Syria..... | 13 | 10 | 23 | Syria..... | 10 | 5 | 15 |
| Turkey..... | 16 | 14 | 30 | Turkey..... | 25 | 32 | 57 |
| United Kingdom..... | 1,452 | 1,265 | 2,717 | United Kingdom..... | 2,577 | 1,875 | 4,452 |
| United States..... | 540 | 253 | 793 | United States..... | 379 | 194 | 573 |
| U.S.S.R..... | 5,658 | 5,131 | 10,789 | U.S.S.R..... | 6,195 | 5,010 | 11,205 |
| West Indies..... | 57 | 50 | 107 | West Indies..... | 97 | 63 | 160 |
| Yugoslavia..... | 1,520 | 1,039 | 2,559 | Yugoslavia..... | 1,395 | 923 | 2,318 |
| Other ¹ | 71 | 65 | 136 | Other ¹ | 72 | 79 | 151 |
| Totals, All Countries..... | 34,895 | 23,816 | 58,711 | Totals, All Countries..... | 33,026 | 22,378 | 55,404 |
| Commonwealth..... | 1,756 | 1,826 | 3,582 | Commonwealth..... | 3,009 | 2,404 | 5,413 |
| Other Europe..... | 30,397 | 20,904 | 51,301 | Other Europe..... | 28,133 | 18,924 | 47,057 |
| Other Asia..... | 2,119 | 775 | 2,894 | Other Asia..... | 1,439 | 783 | 2,222 |
| United States..... | 540 | 253 | 793 | United States..... | 379 | 194 | 573 |
| Other..... | 83 | 58 | 141 | Other..... | 66 | 73 | 139 |

¹ Includes all countries for which fewer than ten former citizens were granted certificates.

7.—Persons Granted Citizenship Certificates in 1955 and 1956, by Country of Former Allegiance

| Country of Former Allegiance | 1955 | 1956 | Country of Former Allegiance | 1955 | 1956 | Country of Former Allegiance | 1955 | 1956 |
|------------------------------|-------|-------|------------------------------|--------|-------|-----------------------------------|---------------|---------------|
| | No. | No. | | No. | No. | | No. | No. |
| British countries..... | 3,766 | 5,812 | Greece..... | 490 | 810 | Spain..... | 17 | 26 |
| Albania..... | 14 | 19 | Hungary..... | 1,333 | 1,880 | Sweden..... | 195 | 133 |
| Austria..... | 551 | 600 | Israel..... | 23 | 23 | Switzerland..... | 294 | 291 |
| Belgium..... | 668 | 545 | Italy..... | 4,532 | 6,271 | Syria..... | 21 | 16 |
| Brazil..... | 13 | 11 | Japan..... | 265 | 140 | Turkey..... | 14 | 16 |
| Bulgaria..... | 36 | 102 | Latvia..... | 2,063 | 1,627 | United States..... | 983 | 722 |
| China..... | 2,366 | 1,709 | Lebanon..... | 50 | 71 | U.S.S.R..... | 2,434 | 3,204 |
| Czechoslovakia..... | 1,704 | 1,610 | Lithuania..... | 2,275 | 1,377 | Yugoslavia..... | 1,614 | 1,653 |
| Denmark..... | 492 | 628 | Netherlands..... | 3,564 | 4,199 | Other countries..... | 77 | 100 |
| Estonia..... | 1,417 | 1,768 | Norway..... | 279 | 179 | Stateless..... | 13,332 | 8,181 |
| Finland..... | 361 | 333 | Palestine..... | 12 | 15 | | | |
| France..... | 345 | 537 | Poland..... | 10,661 | 7,380 | | | |
| Germany..... | 1,527 | 2,483 | Romania..... | 923 | 933 | Totals, All Countries..... | 58,711 | 55,404 |

CHAPTER V.—VITAL STATISTICS*

CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

Vital Statistics provide a record of community and national development—a measurement of the pace of population growth, the number and distribution of people coming into the various age groups, the relative importance of each of the various causes of death, and population trends generally. This Chapter, moreover, attempts to provide a comparison of principal Canadian vital statistics rates with those of other countries and to present tables on marriages and deaths as well as detailed life tables for males and females. Births and deaths are classified by place of residence (births according to the residence of the mother) and marriages by place of occurrence.

The continuity of vital statistics provides a constant guide to the planning, operation and evaluation of a variety of national activities, notably in public health, education, community planning, and various types of business enterprise. The data are presented so as to be useful for the general reader as well as for students of demography, public health, sociology and other specialized fields. The population data upon which the rates shown in this Chapter are computed are contained in Chapter III (Population) and in the several DBS reports relating to census and intercensal estimates of population. In making both international and interprovincial comparisons of birth, death and marriage rates, it is important to note that part of the differences observed over a period of years as between different countries, provinces or local areas may be caused by differences in the sex and age distribution of the populations involved. Similarly, changes in the rates may be caused partly by changes in this distribution.

The history of the collection of vital statistics in Canada is covered in the 1948-49 edition of the Year Book, pp. 185-188. In addition to the information provided in *Vital Statistics* (Preliminary Report), *Vital Statistics of Canada* and other regular DBS annual reports, certain unpublished data are also available on request.

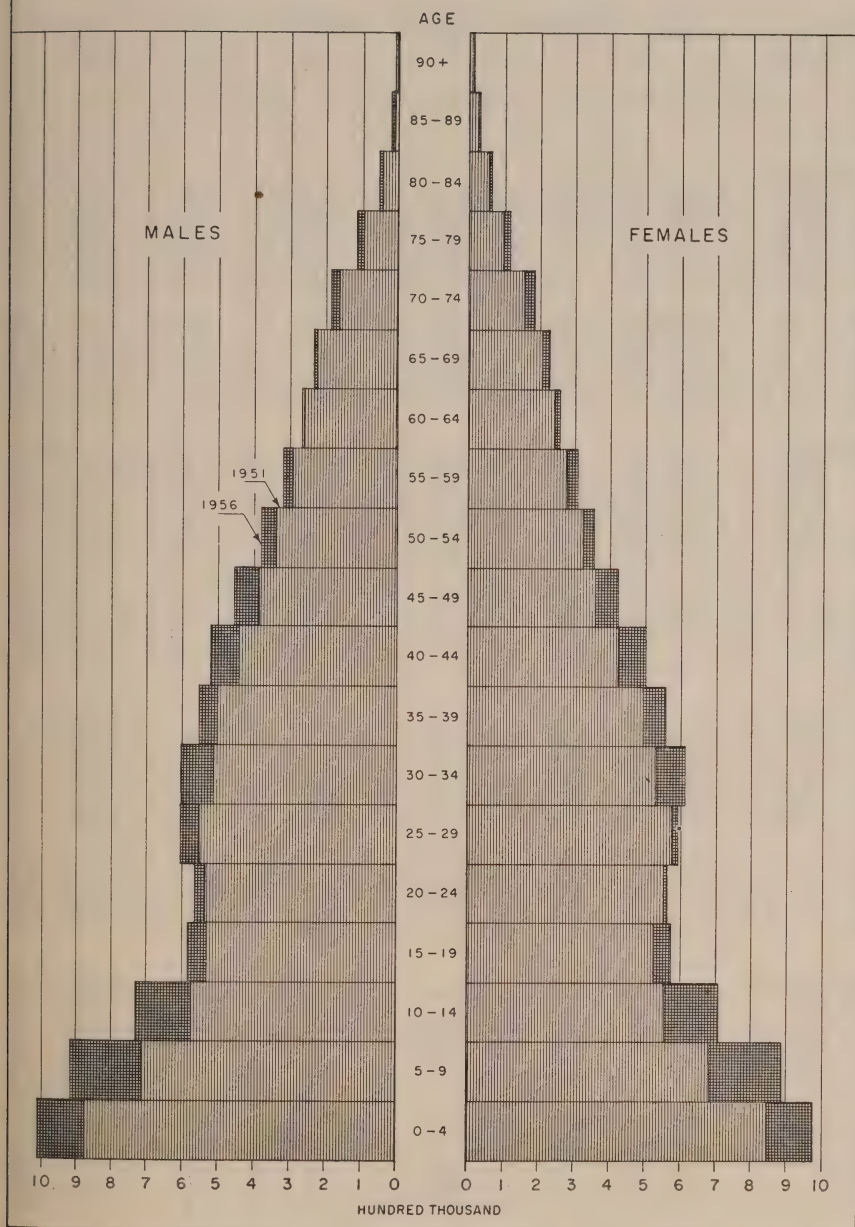
Data for the Yukon and Northwest Territories, previously shown separately and not included in the national totals, are now included in all tables unless otherwise specified.

Section 1.—Summary of Vital Statistics

Table 1 gives a summary of the principal vital statistics of the provinces of Canada from 1921 when the system of collection of national statistics was initiated and Table 2 shows certain vital statistics for urban centres having at least 10,000 population at the date of the 1951 Census.

* Revised in the Vital Statistics Section, Health and Welfare Division Dominion Bureau of Statistics.

POPULATION OF CANADA BY SEX AND FIVE-YEAR AGE GROUPS



1.—Summary of Principal Vital Statistics by Province 1921-56

| Province and Year | Live Births | | Deaths | | Natural Increase | | Infant Mortality ¹ | | Maternal Mortality | | Marriages | |
|-----------------------|----------------|-------------------|--------|-------------------|---------------------|-------------------|----------------------------------|-------------------|-----------------------|-------------------|-----------|-------------------|
| | No. | Rate ² | No. | Rate ² | No. | Rate ² | No. | Rate ³ | No. | Rate ³ | No. | Rate ² |
| Newfoundland— | | | | | | | | | | | | |
| Av. 1921-25..... | 6,986 | 26.7 | 3,665 | 14.0 | 3,321 | 12.7 | 779 | 115 | 50 | 7.1 | 1,481 | 5.7 |
| " 1926-30..... | 6,756 | 25.1 | 3,684 | 13.7 | 3,072 | 11.4 | 779 | 115 | 33 | 4.9 | 1,632 | 6.1 |
| " 1931-35..... | 6,686 | 23.4 | 3,642 | 12.8 | 3,044 | 10.6 | 782 | 117 | 34 | 5.0 | 1,708 | 6.0 |
| " 1936-40..... | 7,638 | 25.8 | 3,681 | 12.4 | 3,957 | 13.4 | 754 | 99 | 40 | 5.3 | 2,208 | 7.5 |
| " 1941-45..... | 9,292 | 29.8 | 3,681 | 11.8 | 5,611 | 18.0 | 852 | 92 | 39 | 4.2 | 2,967 | 9.5 |
| " 1946-50..... | 12,352 | 36.2 | 3,179 | 9.3 | 9,173 | 26.9 | 754 | 61 | 25 | 2.0 | 2,711 | 8.0 |
| " 1951-55..... | 13,101 | 34.1 | 2,926 | 7.6 | 10,175 | 26.5 | 598 | 46 | 24 | 1.8 | 2,836 | 7.4 |
| 1951..... | 11,738 | 32.5 | 3,004 | 8.3 | 8,734 | 24.2 | 637 | 54 | 25 | 2.1 | 2,517 | 7.0 |
| 1952..... | 12,561 | 33.6 | 2,773 | 7.4 | 9,788 | 26.2 | 572 | 46 | 25 | 2.0 | 2,730 | 7.3 |
| 1953..... | 12,797 | 33.4 | 2,733 | 7.1 | 10,064 | 26.3 | 506 | 47 | 19 | 1.5 | 2,771 | 7.2 |
| 1954..... | 13,653 | 34.6 | 2,916 | 7.4 | 10,737 | 27.2 | 561 | 41 | 22 | 1.6 | 2,952 | 7.5 |
| 1955..... | 14,757 | 36.3 | 3,206 | 7.9 | 11,551 | 28.4 | 624 | 42 | 29 | 2.0 | 3,211 | 7.9 |
| 1956..... | 14,541 | 35.0 | 3,058 | 7.4 | 11,483 | 27.6 | 630 | 43 | 23 | 1.6 | 3,073 | 7.4 |
| P. E. Island— | | | | | | | | | | | | |
| Av. 1921-25..... | 1,965 | 22.6 | 1,085 | 12.5 | 880 | 10.1 | 152 | 77 | 9 | 4.6 | 473 | 5.4 |
| " 1926-30..... | 1,735 | 19.7 | 969 | 11.0 | 766 | 8.7 | 122 | 70 | 8 | 4.6 | 473 | 5.4 |
| " 1931-35..... | 1,961 | 21.8 | 1,001 | 11.1 | 960 | 10.7 | 131 | 67 | 10 | 5.1 | 496 | 5.5 |
| " 1936-40..... | 2,054 | 21.9 | 1,080 | 11.5 | 974 | 10.4 | 142 | 69 | 10 | 4.9 | 623 | 6.6 |
| " 1941-45..... | 2,180 | 23.7 | 964 | 10.5 | 1,216 | 13.2 | 114 | 52 | 9 | 3.9 | 686 | 7.5 |
| " 1946-50..... | 2,869 | 30.5 | 922 | 9.8 | 1,947 | 20.7 | 114 | 40 | 4 | 1.3 | 677 | 7.2 |
| " 1951-55..... | 2,720 | 27.2 | 923 | 9.2 | 1,797 | 18.0 | 88 | 32 | 2 | 0.8 | 623 | 6.2 |
| 1951..... | 2,651 | 27.1 | 904 | 9.2 | 1,747 | 17.9 | 90 | 34 | 1 | 0.4 | 583 | 5.9 |
| 1952..... | 2,703 | 27.0 | 916 | 9.2 | 1,787 | 17.8 | 83 | 31 | 4 | 1.5 | 613 | 6.1 |
| 1953..... | 2,737 | 27.1 | 926 | 9.2 | 1,811 | 17.9 | 77 | 28 | 2 | 0.7 | 647 | 6.4 |
| 1954..... | 2,724 | 27.0 | 966 | 9.6 | 1,758 | 17.4 | 95 | 35 | 2 | 0.7 | 605 | 6.0 |
| 1955..... | 2,784 | 27.8 | 901 | 9.0 | 1,883 | 18.8 | 96 | 34 | 2 | 0.7 | 667 | 6.7 |
| 1956..... | 2,657 | 26.8 | 933 | 9.4 | 1,724 | 17.4 | 105 | 40 | 1 | 0.4 | 649 | 6.6 |
| Nova Scotia— | | | | | | | | | | | | |
| Av. 1921-25..... | 12,119 | 23.4 | 6,519 | 12.6 | 5,600 | 10.8 | 1,139 | 94 | 70 | 5.8 | 3,186 | 6.1 |
| " 1926-30..... | 11,016 | 21.4 | 6,362 | 12.4 | 4,653 | 9.0 | 934 | 85 | 61 | 5.5 | 3,224 | 6.3 |
| " 1931-35..... | 11,486 | 21.9 | 6,073 | 11.6 | 5,414 | 10.3 | 840 | 73 | 59 | 5.1 | 3,522 | 6.7 |
| " 1936-40..... | 12,060 | 21.7 | 6,126 | 11.0 | 5,934 | 10.7 | 782 | 65 | 48 | 4.0 | 4,796 | 8.6 |
| " 1941-45..... | 15,146 | 25.2 | 6,326 | 10.5 | 8,820 | 14.7 | 870 | 57 | 41 | 2.7 | 6,302 | 10.5 |
| " 1946-50..... | 17,994 | 28.9 | 6,042 | 9.7 | 11,952 | 19.2 | 760 | 42 | 22 | 1.2 | 5,525 | 8.9 |
| " 1951-55..... | 18,246 | 27.5 | 5,802 | 8.8 | 12,444 | 18.7 | 586 | 32 | 13 | 0.7 | 5,283 | 8.0 |
| 1951..... | 17,125 | 26.6 | 5,812 | 9.0 | 11,313 | 17.6 | 594 | 35 | 12 | 0.7 | 5,094 | 7.9 |
| 1952..... | 17,951 | 27.5 | 5,756 | 8.8 | 12,195 | 18.7 | 615 | 34 | 14 | 0.8 | 5,390 | 8.3 |
| 1953..... | 18,276 | 27.6 | 5,808 | 8.8 | 12,468 | 18.8 | 585 | 32 | 14 | 0.8 | 5,378 | 8.1 |
| 1954..... | 18,909 | 28.1 | 5,692 | 8.5 | 13,217 | 19.6 | 568 | 30 | 10 | 0.5 | 5,265 | 7.8 |
| 1955..... | 18,967 | 27.8 | 5,940 | 8.7 | 13,027 | 19.1 | 566 | 30 | 13 | 0.7 | 5,288 | 7.7 |
| 1956..... | 19,106 | 27.5 | 5,738 | 8.3 | 13,368 | 19.2 | 554 | 29 | 6 | 0.3 | 5,543 | 8.0 |
| New Brunswick— | | | | | | | | | | | | |
| Av. 1921-25..... | 11,080 | 28.4 | 5,093 | 13.1 | 5,987 | 15.4 | 1,164 | 105 | 51 | 4.6 | 2,953 | 7.6 |
| " 1926-30..... | 10,327 | 25.8 | 5,019 | 12.5 | 5,308 | 13.2 | 1,040 | 101 | 64 | 6.2 | 2,970 | 7.4 |
| " 1931-35..... | 10,440 | 24.9 | 4,710 | 11.3 | 5,730 | 13.6 | 857 | 82 | 57 | 5.5 | 2,737 | 6.5 |
| " 1936-40..... | 11,105 | 25.1 | 5,040 | 11.4 | 6,065 | 13.7 | 913 | 82 | 54 | 4.9 | 3,801 | 8.6 |
| " 1941-45..... | 13,037 | 28.2 | 5,050 | 10.9 | 7,987 | 17.3 | 960 | 74 | 42 | 3.2 | 4,433 | 9.6 |
| " 1946-50..... | 16,878 | 34.0 | 4,886 | 9.8 | 11,992 | 24.2 | 1,015 | 60 | 23 | 1.4 | 4,864 | 9.8 |
| " 1951-55..... | 16,496 | 31.0 | 4,576 | 8.6 | 11,920 | 22.4 | 717 | 43 | 16 | 0.9 | 4,306 | 8.1 |
| 1951..... | 16,075 | 31.2 | 4,873 | 9.4 | 11,202 | 21.8 | 835 | 52 | 11 | 0.7 | 4,386 | 8.5 |
| 1952..... | 16,691 | 31.7 | 4,647 | 8.8 | 12,044 | 22.9 | 729 | 44 | 19 | 1.1 | 4,276 | 8.1 |
| 1953..... | 16,458 | 30.9 | 4,637 | 8.7 | 11,821 | 22.2 | 754 | 45 | 16 | 1.0 | 4,232 | 7.9 |
| 1954..... | 16,649 | 30.8 | 4,286 | 7.9 | 12,363 | 22.9 | 664 | 40 | 12 | 0.7 | 4,278 | 7.9 |
| 1955..... | 16,609 | 30.4 | 4,435 | 8.1 | 12,174 | 22.3 | 622 | 37 | 20 | 1.2 | 4,359 | 8.0 |
| 1956..... | 16,573 | 29.9 | 4,658 | 8.4 | 11,915 | 21.5 | 656 | 40 | 9 | 0.5 | 4,591 | 8.3 |

¹ Under one year of age.² Per 1,000 population.³ Per 1,000 live births.

1.—Summary of Principal Vital Statistics by Province 1921-56—continued

| Province and Year | Live Births | | Deaths | | Natural Increase | | Infant Mortality ¹ | | Maternal Mortality | | Marriages | |
|----------------------|-------------|-------------------|--------|-------------------|------------------|-------------------|-------------------------------|-------------------|--------------------|-------------------|-----------|-------------------|
| | No. | Rate ² | No. | Rate ² | No. | Rate ² | No. | Rate ³ | No. | Rate ³ | No. | Rate ² |
| Quebec— | | | | | | | | | | | | |
| Av. 1921-25..... | 87,032 | 35.5 | 33,339 | 13.6 | 53,693 | 21.9 | 10,834 | 124 | 338 | 3.9 | 17,529 | 7.1 |
| " 1926-30..... | 82,771 | 30.5 | 36,645 | 13.5 | 46,126 | 17.0 | 10,518 | 127 | 433 | 5.2 | 18,731 | 6.9 |
| " 1931-35..... | 78,888 | 26.6 | 32,796 | 11.0 | 46,092 | 15.6 | 7,757 | 98 | 405 | 5.1 | 17,089 | 5.8 |
| " 1936-40..... | 78,509 | 24.6 | 33,221 | 10.4 | 45,288 | 14.2 | 6,470 | 82 | 400 | 5.1 | 27,111 | 8.5 |
| " 1941-45..... | 97,906 | 28.4 | 34,273 | 9.9 | 63,633 | 18.5 | 6,690 | 68 | 318 | 3.2 | 33,126 | 9.6 |
| " 1946-50..... | 115,496 | 30.4 | 33,723 | 8.9 | 81,773 | 21.5 | 6,205 | 54 | 227 | 2.0 | 34,874 | 9.2 |
| " 1951-55..... | 128,523 | 30.0 | 34,269 | 8.0 | 94,254 | 22.0 | 5,662 | 44 | 149 | 1.2 | 35,584 | 8.3 |
| 1951..... | 120,930 | 29.8 | 34,900 | 8.6 | 86,030 | 21.2 | 5,821 | 48 | 180 | 1.5 | 35,704 | 8.8 |
| 1952..... | 126,416 | 30.3 | 34,854 | 8.4 | 91,562 | 21.9 | 6,332 | 50 | 155 | 1.2 | 35,374 | 8.5 |
| 1953..... | 128,719 | 30.2 | 34,469 | 8.1 | 94,250 | 22.1 | 5,749 | 45 | 136 | 1.1 | 35,968 | 8.4 |
| 1954..... | 133,178 | 30.4 | 33,169 | 7.6 | 100,009 | 22.8 | 5,361 | 40 | 140 | 1.1 | 35,516 | 8.1 |
| 1955..... | 133,372 | 29.5 | 33,952 | 7.5 | 99,420 | 22.0 | 5,046 | 38 | 133 | 1.0 | 35,356 | 7.8 |
| 1956..... | 135,884 | 29.4 | 35,042 | 7.6 | 100,842 | 21.8 | 5,544 | 41 | 125 | 0.9 | 37,290 | 8.1 |
| Ontario— | | | | | | | | | | | | |
| Av. 1921-25..... | 71,454 | 23.7 | 34,252 | 11.3 | 37,202 | 12.3 | 5,916 | 83 | 386 | 5.4 | 24,037 | 8.0 |
| " 1926-30..... | 68,704 | 21.0 | 36,650 | 11.2 | 32,054 | 9.8 | 5,091 | 74 | 398 | 5.8 | 25,449 | 7.8 |
| " 1931-35..... | 65,000 | 18.5 | 35,782 | 10.2 | 29,218 | 8.3 | 3,962 | 61 | 344 | 5.3 | 24,260 | 6.9 |
| " 1936-40..... | 64,461 | 17.5 | 37,794 | 10.3 | 26,668 | 7.2 | 3,196 | 50 | 291 | 4.5 | 32,719 | 8.9 |
| " 1941-45..... | 77,738 | 19.9 | 39,738 | 10.2 | 38,000 | 9.7 | 3,276 | 42 | 197 | 2.5 | 38,042 | 9.7 |
| " 1946-50..... | 105,161 | 24.6 | 42,214 | 9.9 | 62,947 | 14.7 | 3,795 | 36 | 129 | 1.2 | 44,084 | 10.3 |
| " 1951-55..... | 128,861 | 26.1 | 44,715 | 9.0 | 84,146 | 17.1 | 3,634 | 28 | 83 | 0.6 | 45,213 | 9.1 |
| 1951..... | 114,827 | 25.0 | 43,981 | 9.6 | 70,846 | 15.4 | 3,545 | 31 | 97 | 0.8 | 45,198 | 9.8 |
| 1952..... | 123,891 | 25.9 | 44,402 | 9.3 | 79,489 | 16.6 | 3,789 | 31 | 100 | 0.8 | 45,251 | 9.5 |
| 1953..... | 129,771 | 26.3 | 45,242 | 9.2 | 84,529 | 17.1 | 3,696 | 28 | 69 | 0.5 | 45,954 | 9.3 |
| 1954..... | 136,261 | 26.6 | 44,515 | 8.7 | 91,746 | 17.9 | 3,517 | 26 | 69 | 0.5 | 45,028 | 8.8 |
| 1955..... | 139,554 | 26.5 | 45,434 | 8.6 | 94,120 | 17.9 | 3,622 | 26 | 81 | 0.6 | 44,634 | 8.5 |
| 1956..... | 143,516 | 26.6 | 47,231 | 8.7 | 96,285 | 17.9 | 3,610 | 25 | 70 | 0.5 | 46,282 | 8.6 |
| Manitoba— | | | | | | | | | | | | |
| Av. 1921-25..... | 16,590 | 26.8 | 5,348 | 8.6 | 11,242 | 18.1 | 1,394 | 84 | 87 | 5.2 | 4,634 | 7.5 |
| " 1926-30..... | 14,392 | 21.7 | 5,507 | 8.3 | 8,885 | 13.4 | 1,031 | 72 | 81 | 5.6 | 4,951 | 7.5 |
| " 1931-35..... | 13,690 | 19.4 | 5,413 | 7.7 | 8,277 | 11.7 | 835 | 61 | 60 | 4.4 | 5,015 | 7.1 |
| " 1936-40..... | 13,515 | 18.8 | 6,136 | 8.5 | 7,379 | 10.3 | 773 | 57 | 54 | 4.0 | 6,931 | 9.6 |
| " 1941-45..... | 15,331 | 21.8 | 6,633 | 9.1 | 9,198 | 12.7 | 814 | 51 | 41 | 2.6 | 7,295 | 10.0 |
| " 1946-50..... | 19,325 | 25.9 | 6,702 | 9.0 | 12,623 | 16.9 | 810 | 42 | 24 | 1.3 | 7,605 | 10.2 |
| " 1951-55..... | 21,321 | 26.4 | 6,775 | 8.4 | 14,546 | 18.0 | 675 | 32 | 15 | 0.7 | 7,104 | 8.8 |
| 1951..... | 19,942 | 25.7 | 6,735 | 8.7 | 13,207 | 17.0 | 658 | 33 | 22 | 1.1 | 7,366 | 9.5 |
| 1952..... | 20,777 | 26.0 | 6,552 | 8.2 | 14,225 | 17.8 | 647 | 31 | 11 | 0.5 | 7,128 | 8.9 |
| 1953..... | 21,242 | 26.3 | 7,015 | 8.7 | 14,227 | 17.6 | 741 | 35 | 16 | 0.8 | 7,277 | 9.0 |
| 1954..... | 22,248 | 27.0 | 6,719 | 8.2 | 15,529 | 18.8 | 635 | 29 | 11 | 0.5 | 6,837 | 8.3 |
| 1955..... | 22,397 | 26.7 | 6,853 | 8.2 | 15,544 | 18.5 | 696 | 31 | 15 | 0.7 | 6,913 | 8.2 |
| 1956..... | 21,945 | 25.8 | 7,058 | 8.3 | 14,887 | 17.5 | 676 | 31 | 6 | 0.3 | 6,709 | 7.9 |
| Saskatchewan— | | | | | | | | | | | | |
| Av. 1921-25..... | 21,580 | 27.7 | 5,859 | 7.5 | 15,721 | 20.2 | 1,790 | 83 | 127 | 5.9 | 4,982 | 6.4 |
| " 1926-30..... | 21,298 | 24.7 | 6,256 | 7.3 | 15,042 | 17.5 | 1,560 | 73 | 126 | 5.9 | 6,036 | 7.0 |
| " 1931-35..... | 20,325 | 21.9 | 6,037 | 6.5 | 14,288 | 15.4 | 1,260 | 62 | 91 | 4.5 | 5,680 | 6.1 |
| " 1936-40..... | 18,675 | 20.4 | 6,366 | 7.0 | 12,310 | 13.4 | 1,025 | 55 | 68 | 3.6 | 6,599 | 7.2 |
| " 1941-45..... | 18,444 | 21.7 | 6,437 | 7.6 | 12,007 | 14.1 | 858 | 47 | 52 | 2.8 | 6,541 | 7.7 |
| " 1946-50..... | 21,907 | 26.3 | 6,473 | 7.8 | 15,434 | 18.5 | 883 | 40 | 29 | 1.3 | 7,413 | 8.9 |
| " 1951-55..... | 23,554 | 27.5 | 6,547 | 7.6 | 17,007 | 19.9 | 743 | 32 | 16 | 0.7 | 8,676 | 8.0 |
| 1951..... | 21,733 | 26.1 | 6,440 | 7.7 | 15,293 | 18.4 | 676 | 31 | 22 | 1.0 | 6,805 | 8.2 |
| 1952..... | 22,605 | 26.8 | 6,625 | 7.9 | 15,980 | 18.9 | 787 | 35 | 13 | 0.6 | 6,944 | 8.2 |
| 1953..... | 23,703 | 27.5 | 6,687 | 7.8 | 17,016 | 19.7 | 797 | 34 | 13 | 0.5 | 7,186 | 8.3 |
| 1954..... | 24,981 | 28.6 | 6,323 | 7.2 | 18,658 | 21.4 | 708 | 28 | 22 | 0.9 | 6,953 | 8.0 |
| 1955..... | 24,746 | 28.2 | 6,661 | 7.6 | 18,085 | 20.6 | 745 | 30 | 11 | 0.4 | 6,494 | 7.4 |
| 1956..... | 24,059 | 27.3 | 6,666 | 7.6 | 17,393 | 19.7 | 680 | 28 | 8 | 0.3 | 6,403 | 7.3 |

¹ Under one year of age.² Per 1,000 population.³ Per 1,000 live births.

1.—Summary of Principal Vital Statistics by Province 1921-56—concluded

| Province and Year | Live Births | | Deaths | | Natural Increase | | Infant Mortality ¹ | | Maternal Mortality | | Marriages | |
|-------------------------------|-------------|-------------------|---------|-------------------|------------------|-------------------|-------------------------------|-------------------|--------------------|-------------------|-----------|-------------------|
| | No. | Rate ² | No. | Rate ² | No. | Rate ² | No. | Rate ³ | No. | Rate ³ | No. | Rate ² |
| Alberta— | | | | | | | | | | | | |
| Av. 1921-25 | 15,461 | 26.0 | 4,953 | 8.3 | 10,508 | 17.7 | 1,327 | 86 | 97 | 6.3 | 4,313 | 7.3 |
| " 1926-30 | 15,924 | 24.2 | 5,530 | 8.4 | 10,393 | 15.8 | 1,195 | 75 | 105 | 6.6 | 5,265 | 8.0 |
| " 1931-35 | 16,557 | 22.1 | 5,447 | 7.3 | 11,110 | 14.8 | 997 | 60 | 75 | 4.5 | 5,530 | 7.4 |
| " 1936-40 | 16,282 | 20.8 | 6,054 | 7.7 | 10,228 | 13.1 | 869 | 53 | 73 | 4.5 | 7,192 | 9.2 |
| " 1941-45 | 18,845 | 23.7 | 6,355 | 8.0 | 12,490 | 15.7 | 827 | 44 | 46 | 2.4 | 7,977 | 10.0 |
| " 1946-50 | 24,290 | 28.4 | 6,814 | 8.0 | 17,476 | 20.4 | 889 | 37 | 25 | 1.0 | 9,090 | 13.6 |
| " 1951-55 | 31,087 | 30.6 | 7,527 | 7.4 | 23,560 | 23.2 | 894 | 29 | 15 | 0.5 | 9,750 | 9.6 |
| 1951 | 27,003 | 28.8 | 7,167 | 7.6 | 19,836 | 21.2 | 889 | 33 | 15 | 0.6 | 9,305 | 9.9 |
| 1952 | 29,105 | 29.9 | 7,345 | 7.5 | 21,760 | 22.4 | 879 | 30 | 15 | 0.5 | 9,514 | 9.8 |
| 1953 | 31,376 | 31.0 | 7,646 | 7.6 | 23,730 | 23.4 | 930 | 30 | 21 | 0.7 | 10,126 | 10.0 |
| 1954 | 33,593 | 31.8 | 7,520 | 7.1 | 26,073 | 24.7 | 882 | 26 | 11 | 0.3 | 9,960 | 9.4 |
| 1955 | 34,357 | 31.5 | 7,956 | 7.3 | 26,401 | 24.2 | 888 | 26 | 15 | 0.4 | 9,844 | 9.0 |
| 1956 | 34,951 | 31.1 | 7,786 | 6.9 | 27,165 | 24.2 | 860 | 25 | 14 | 0.4 | 9,965 | 8.9 |
| British Columbia— | | | | | | | | | | | | |
| Av. 1921-25 | 10,256 | 18.4 | 4,812 | 8.7 | 5,444 | 9.8 | 621 | 61 | 61 | 5.9 | 3,971 | 7.1 |
| " 1926-30 | 10,355 | 16.2 | 5,986 | 9.3 | 4,369 | 6.8 | 571 | 55 | 63 | 6.1 | 4,786 | 7.5 |
| " 1931-35 | 10,005 | 14.0 | 6,344 | 8.9 | 3,661 | 5.1 | 463 | 46 | 53 | 5.3 | 4,267 | 6.0 |
| " 1936-40 | 12,106 | 15.6 | 7,697 | 9.9 | 4,408 | 5.7 | 532 | 44 | 46 | 3.8 | 7,053 | 9.1 |
| " 1941-45 | 17,705 | 19.8 | 9,368 | 10.5 | 8,337 | 9.3 | 684 | 39 | 46 | 2.6 | 9,535 | 10.7 |
| " 1946-50 | 25,859 | 24.0 | 10,992 | 10.2 | 14,867 | 13.9 | 868 | 34 | 31 | 1.2 | 11,564 | 10.7 |
| " 1951-55 | 31,347 | 25.1 | 12,293 | 9.8 | 19,114 | 15.3 | 856 | 27 | 17 | 0.5 | 11,131 | 8.9 |
| 1951 | 28,077 | 24.1 | 11,638 | 10.0 | 16,439 | 14.1 | 839 | 30 | 20 | 0.7 | 11,272 | 9.7 |
| 1952 | 29,827 | 24.8 | 12,080 | 10.0 | 17,747 | 14.8 | 870 | 29 | 18 | 0.6 | 11,081 | 9.2 |
| 1953 | 31,746 | 25.4 | 12,218 | 9.8 | 19,528 | 15.6 | 859 | 27 | 18 | 0.6 | 11,298 | 9.1 |
| 1954 | 32,946 | 25.4 | 12,414 | 9.6 | 20,532 | 15.8 | 850 | 26 | 13 | 0.4 | 10,991 | 8.5 |
| 1955 | 34,138 | 25.4 | 12,816 | 9.5 | 21,322 | 15.9 | 862 | 25 | 16 | 0.5 | 11,011 | 8.2 |
| 1956 | 36,241 | 25.9 | 13,415 | 9.6 | 22,826 | 16.3 | 944 | 26 | 13 | 0.4 | 11,950 | 8.5 |
| Yukon— | | | | | | | | | | | | |
| 1951 | 342 | 38.0 | 85 | 9.4 | 257 | 28.6 | 19 | 56 | — | — | 68 | 7.6 |
| 1952 | 390 | 43.3 | 94 | 10.4 | 296 | 32.9 | 19 | 49 | — | — | 73 | 8.1 |
| 1953 | 383 | 42.6 | 116 | 12.9 | 267 | 29.7 | 19 | 50 | 1 | 2.6 | 94 | 10.4 |
| 1954 | 425 | 42.5 | 85 | 8.5 | 340 | 34.0 | 25 | 59 | — | — | 110 | 11.0 |
| 1955 | 524 | 47.6 | 72 | 6.5 | 452 | 41.1 | 27 | 52 | — | — | 125 | 11.4 |
| 1956 | 481 | 40.1 | 85 | 7.1 | 396 | 33.0 | 23 | 48 | — | — | 112 | 9.3 |
| Northwest Territories— | | | | | | | | | | | | |
| 1951 | 649 | 40.6 | 284 | 17.8 | 365 | 22.8 | 70 | 108 | 2 | 3.1 | 110 | 6.9 |
| 1952 | 642 | 40.1 | 341 | 21.3 | 301 | 18.8 | 86 | 134 | 2 | 3.1 | 100 | 6.3 |
| 1953 | 676 | 42.3 | 294 | 18.4 | 382 | 23.9 | 76 | 112 | 2 | 3.0 | 103 | 6.4 |
| 1954 | 631 | 37.1 | 250 | 14.7 | 381 | 22.4 | 68 | 108 | 4 | 6.3 | 134 | 7.9 |
| 1955 | 732 | 40.7 | 250 | 13.9 | 482 | 26.8 | 90 | 123 | 2 | 2.7 | 127 | 7.1 |
| 1956 | 785 | 41.3 | 291 | 15.3 | 494 | 26.0 | 117 | 149 | 3 | 3.8 | 146 | 7.7 |
| Canada—⁴ | | | | | | | | | | | | |
| Av. 1921-25 | 247,538 | 27.4 | 101,260 | 11.2 | 146,277 | 16.2 | 24,337 | 98 | 1,226 | 5.0 | 66,078 | 7.3 |
| " 1926-30 | 236,521 | 24.1 | 108,925 | 11.1 | 127,596 | 13.0 | 22,063 | 93 | 1,339 | 5.7 | 71,886 | 7.3 |
| " 1931-35 | 228,352 | 21.5 | 103,602 | 9.8 | 124,750 | 11.7 | 17,101 | 75 | 1,153 | 5.0 | 68,594 | 6.5 |
| " 1936-40 | 228,767 | 20.5 | 109,514 | 9.8 | 119,253 | 10.7 | 14,701 | 64 | 1,043 | 4.6 | 96,824 | 8.7 |
| " 1941-45 | 276,832 | 23.5 | 115,144 | 9.8 | 161,688 | 13.7 | 15,093 | 55 | 791 | 2.9 | 113,936 | 9.7 |
| " 1946-50 | 354,869 | 27.4 | 119,975 | 9.3 | 234,894 | 18.1 | 15,620 | 44 | 523 | 1.5 | 126,687 | 9.8 |
| " 1951-55 | 416,334 | 28.0 | 126,666 | 8.5 | 289,668 | 19.5 | 14,552 | 35 | 353 | 0.8 | 128,915 | 8.7 |
| 1951 | 381,092 | 27.2 | 125,823 | 9.0 | 255,269 | 18.2 | 14,673 | 39 | 407 | 1.1 | 128,408 | 9.2 |
| 1952 | 403,559 | 27.9 | 126,385 | 8.7 | 277,174 | 19.2 | 15,408 | 38 | 376 | 0.9 | 128,474 | 8.9 |
| 1953 | 417,884 | 28.1 | 127,791 | 8.6 | 290,093 | 19.5 | 14,859 | 36 | 327 | 0.8 | 131,034 | 8.8 |
| 1954 | 436,198 | 28.5 | 124,855 | 8.2 | 311,343 | 20.3 | 13,934 | 32 | 316 | 0.7 | 128,629 | 8.4 |
| 1955 | 442,937 | 28.2 | 128,476 | 8.2 | 314,461 | 20.0 | 13,884 | 31 | 337 | 0.8 | 128,029 | 8.2 |
| 1956 | 450,739 | 28.0 | 131,961 | 8.2 | 318,778 | 19.8 | 14,399 | 32 | 278 | 0.6 | 132,713 | 8.3 |

¹ Under one year of age.² Per 1,000 population.³ Per 1,000 live births.⁴ Figures for

Newfoundland are included for 1949-56 only; and the Yukon and Northwest Territories 1951-56 only.

2.—Summary of Principal Vital Statistics for Urban Centres of 10,000 Population or Over¹ 1951-56

| Province and Urban Centre | Births | | | Deaths | | | Natural Increase | | | Infant Deaths | | | |
|------------------------------|---------------|--------|-------------------|---------------|-------|-------------------|------------------|--------|-------------------|---------------|-------------------|-----|-------------------|
| | Av. 1951-1955 | 1956 | | Av. 1951-1955 | 1956 | | Av. 1951-1955 | 1956 | | Av. 1951-1955 | 1956 | | |
| | No. | No. | Rate ² | No. | No. | Rate ² | No. | No. | Rate ² | No. | Rate ³ | No. | Rate ³ |
| Newfoundland— | | | | | | | | | | | | | |
| St. John's..... | 1,878 | 2,155 | 37.8 | 507 | 533 | 9.3 | 1,371 | 1,622 | 28.5 | 75 | 40 | 63 | 29 |
| Prince Edward Island— | | | | | | | | | | | | | |
| Charlottetown..... | 477 | 486 | 29.1 | 206 | 218 | 13.0 | 271 | 268 | 16.1 | 14 | 30 | 24 | 49 |
| Nova Scotia— | | | | | | | | | | | | | |
| Dartmouth..... | 633 | 772 | 36.6 | 103 | 121 | 5.7 | 530 | 651 | 30.9 | 11 | 18 | 15 | 19 |
| Glace Bay..... | 687 | 629 | 25.8 | 220 | 204 | 8.4 | 467 | 425 | 17.4 | 32 | 46 | 27 | 43 |
| Halifax..... | 2,482 | 2,496 | 26.8 | 725 | 786 | 8.4 | 1,757 | 1,710 | 18.4 | 59 | 24 | 82 | 33 |
| New Waterford..... | 369 | 370 | 35.6 | 87 | 104 | 10.0 | 282 | 266 | 25.6 | 19 | 50 | 21 | 57 |
| Sydney..... | 1,063 | 971 | 30.2 | 246 | 230 | 7.2 | 817 | 741 | 23.0 | 24 | 23 | 9 | 9 |
| Truro..... | 299 | 392 | 32.0 | 94 | 122 | 10.0 | 205 | 270 | 22.0 | 7 | 23 | 13 | 33 |
| New Brunswick— | | | | | | | | | | | | | |
| Edmundston..... | 398 | 380 | 31.7 | 68 | 82 | 6.8 | 330 | 298 | 24.9 | 14 | 36 | 10 | 26 |
| Fredericton..... | 453 | 504 | 27.5 | 153 | 154 | 8.4 | 300 | 350 | 19.1 | 14 | 32 | 9 | 18 |
| Moncton..... | 775 | 861 | 23.9 | 218 | 250 | 6.9 | 557 | 611 | 17.0 | 22 | 29 | 21 | 24 |
| Saint John..... | 1,499 | 1,487 | 28.3 | 556 | 560 | 10.7 | 943 | 927 | 17.6 | 40 | 27 | 44 | 30 |
| Quebec— | | | | | | | | | | | | | |
| Arvida..... | 389 | 470 | 36.4 | 46 | 40 | 3.1 | 343 | 430 | 33.3 | 17 | 43 | 13 | 28 |
| Cap de la Madeleine..... | 680 | 715 | 31.2 | 127 | 144 | 6.3 | 553 | 571 | 24.9 | 23 | 34 | 33 | 46 |
| Chicoutimi..... | 1,041 | 1,075 | 43.2 | 197 | 186 | 7.5 | 844 | 889 | 35.7 | 56 | 54 | 60 | 56 |
| Drummondville..... | 548 | 808 | 30.7 | 138 | 191 | 7.3 | 410 | 617 | 23.4 | 30 | 55 | 55 | 68 |
| Granby..... | 854 | 853 | 31.5 | 176 | 173 | 6.4 | 678 | 680 | 25.1 | 28 | 33 | 20 | 23 |
| Grand Mère..... | 406 | 449 | 32.0 | 83 | 82 | 5.8 | 323 | 367 | 26.2 | 16 | 38 | 20 | 45 |
| Hull..... | 1,586 | 1,815 | 36.9 | 413 | 365 | 7.4 | 1,173 | 1,450 | 29.5 | 95 | 60 | 69 | 38 |
| Jacques-Cartier..... | 1,051 | 1,223 | 36.9 | 186 | 193 | 5.8 | 865 | 1,030 | 31.1 | 58 | 55 | 44 | 36 |
| Joliette..... | 470 | 509 | 30.0 | 164 | 173 | 10.2 | 306 | 336 | 19.8 | 19 | 40 | 27 | 53 |
| Jonquière..... | 943 | 1,033 | 40.4 | 148 | 133 | 5.2 | 795 | 900 | 35.2 | 43 | 46 | 38 | 37 |
| Lachine..... | 777 | 892 | 25.9 | 234 | 249 | 7.2 | 543 | 643 | 18.7 | 21 | 28 | 21 | 24 |
| Lasalle..... | 480 | 655 | 34.5 | 87 | 126 | 6.6 | 393 | 529 | 27.9 | 13 | 27 | 11 | 17 |
| Lévis..... | 338 | 313 | 22.9 | 118 | 142 | 10.4 | 220 | 171 | 12.5 | 19 | 57 | 15 | 48 |
| Longueuil..... | 391 | 412 | 28.7 | 106 | 107 | 7.5 | 285 | 305 | 21.2 | 16 | 40 | 8 | 19 |
| Magog..... | 404 | 391 | 30.7 | 101 | 89 | 7.0 | 303 | 302 | 23.7 | 15 | 36 | 14 | 36 |
| Montreal..... | 27,847 | 28,283 | 25.5 | 9,937 | 9,862 | 8.9 | 17,910 | 18,421 | 16.6 | 898 | 32 | 851 | 30 |
| Montreal North..... | 546 | 794 | 31.3 | 107 | 156 | 6.1 | 439 | 638 | 25.2 | 23 | 42 | 20 | 25 |
| Mount Royal..... | 237 | 265 | 15.6 | 73 | 94 | 5.5 | 164 | 171 | 10.1 | 4 | 19 | 7 | 26 |
| Outremont..... | 302 | 351 | 11.7 | 275 | 334 | 11.1 | 27 | 17 | 0.6 | 7 | 24 | 13 | 37 |
| Quebec..... | 4,316 | 4,508 | 26.4 | 1,630 | 1,553 | 9.1 | 2,686 | 2,955 | 17.3 | 267 | 62 | 196 | 43 |
| Rimouski..... | 448 | 478 | 32.7 | 82 | 74 | 5.1 | 366 | 404 | 27.6 | 22 | 50 | 14 | 29 |
| Rouyn..... | 595 | 645 | 37.8 | 100 | 95 | 5.6 | 495 | 550 | 32.2 | 29 | 48 | 17 | 26 |
| St. Hyacinthe..... | 543 | 493 | 24.1 | 248 | 244 | 11.9 | 295 | 249 | 12.2 | 18 | 32 | 33 | 67 |
| St. Jean..... | 671 | 756 | 31.0 | 168 | 158 | 6.5 | 503 | 598 | 24.5 | 26 | 38 | 19 | 25 |
| St. Jérôme..... | 596 | 610 | 29.5 | 134 | 144 | 7.0 | 462 | 466 | 22.5 | 29 | 49 | 27 | 44 |
| St. Laurent..... | 886 | 1,098 | 28.7 | 163 | 213 | 5.6 | 723 | 885 | 23.1 | 21 | 23 | 22 | 20 |
| St. Michel..... | 553 | 956 | 38.7 | 76 | 125 | 5.1 | 477 | 831 | 33.6 | 15 | 27 | 33 | 35 |
| Shawinigan Falls..... | 866 | 856 | 29.9 | 179 | 176 | 6.2 | 687 | 830 | 23.7 | 32 | 37 | 44 | 51 |
| Sherbrooke..... | 1,751 | 1,765 | 30.1 | 463 | 442 | 7.5 | 1,288 | 1,323 | 22.6 | 72 | 41 | 60 | 34 |
| Sillery..... | 266 | 262 | 19.9 | 63 | 68 | 5.2 | 203 | 194 | 14.7 | 8 | 30 | 8 | 31 |
| Sorel..... | 510 | 476 | 28.9 | 137 | 130 | 7.9 | 373 | 346 | 21.0 | 27 | 52 | 14 | 29 |
| Thetford Mines..... | 574 | 663 | 34.0 | 126 | 142 | 7.3 | 448 | 521 | 26.7 | 27 | 46 | 28 | 42 |
| Three Rivers..... | 1,440 | 1,463 | 29.0 | 389 | 396 | 7.8 | 1,051 | 1,067 | 21.2 | 66 | 46 | 63 | 43 |
| Valleyfield..... | 725 | 743 | 31.5 | 190 | 177 | 7.5 | 535 | 566 | 24.0 | 34 | 47 | 27 | 36 |
| Verdun..... | 1,807 | 1,819 | 23.2 | 587 | 593 | 7.6 | 1,220 | 1,226 | 15.6 | 40 | 22 | 37 | 20 |
| Victoriaville..... | 476 | 513 | 32.0 | 147 | 142 | 8.9 | 329 | 371 | 23.1 | 35 | 73 | 26 | 51 |
| Westmount..... | 264 | 261 | 10.5 | 287 | 289 | 11.7 | -23 | -28 | -1.2 | 8 | 30 | 5 | 19 |
| Ontario— | | | | | | | | | | | | | |
| Barrie..... | 432 | 560 | 33.2 | 137 | 151 | 9.0 | 295 | 409 | 24.2 | 11 | 25 | 14 | 25 |
| Belleville..... | 540 | 542 | 26.3 | 195 | 192 | 9.3 | 345 | 350 | 17.0 | 16 | 29 | 11 | 20 |
| Brantford..... | 989 | 1,184 | 22.8 | 409 | 513 | 9.9 | 580 | 671 | 12.9 | 28 | 28 | 32 | 27 |

¹ As at the 1951 Census.² Per 1,000 population.³ Per 1,000 live births.

2.—Summary of Principal Vital Statistics for Urban Centres of 10,000 Population or Over¹ 1951-56—concluded

| Province and Urban Centre | Births | | | Deaths | | | Natural Increase | | | Infant Deaths | | | |
|---------------------------|---------------|--------|-------------------|---------------|-------|-------------------|------------------|-------|-------------------|---------------|-------------------|------|-------------------|
| | Av. 1951-1955 | | 1956 | Av. 1951-1955 | | 1956 | Av. 1951-1955 | | 1956 | Av. 1951-1955 | | 1956 | |
| | No. | No. | Rate ² | No. | No. | Rate ² | No. | No. | Rate ² | No. | Rate ³ | No. | Rate ³ |
| Ontario—concluded | | | | | | | | | | | | | |
| Brockville..... | 308 | 323 | 23.3 | 145 | 159 | 11.5 | 163 | 164 | 11.8 | 12 | 40 | 10 | 31 |
| Chatham..... | 569 | 578 | 26.0 | 223 | 220 | 9.9 | 346 | 358 | 16.1 | 18 | 31 | 18 | 31 |
| Cornwall..... | 507 | 476 | 26.2 | 166 | 173 | 9.5 | 341 | 303 | 16.7 | 16 | 32 | 14 | 29 |
| Eastview..... | 619 | 839 | 43.5 | 91 | 119 | 6.2 | 528 | 720 | 37.3 | 21 | 34 | 24 | 29 |
| Forest Hill..... | 232 | 259 | 13.3 | 107 | 138 | 7.1 | 125 | 121 | 6.2 | 3 | 15 | 3 | 12 |
| Fort William..... | 991 | 981 | 24.9 | 319 | 310 | 7.9 | 672 | 671 | 17.0 | 21 | 21 | 25 | 25 |
| Galt..... | 494 | 567 | 23.9 | 200 | 220 | 9.3 | 294 | 347 | 14.6 | 11 | 22 | 8 | 14 |
| Guelph..... | 775 | 902 | 26.6 | 309 | 342 | 10.1 | 466 | 560 | 16.5 | 23 | 30 | 28 | 31 |
| Hamilton..... | 5,682 | 6,173 | 25.8 | 2,014 | 2,076 | 8.7 | 3,668 | 4,097 | 17.1 | 161 | 28 | 146 | 24 |
| Kingston..... | 1,182 | 1,329 | 27.3 | 448 | 472 | 9.7 | 734 | 857 | 17.6 | 36 | 31 | 39 | 29 |
| Kitchener..... | 1,437 | 1,662 | 27.9 | 405 | 493 | 8.3 | 1,032 | 1,169 | 19.6 | 31 | 21 | 39 | 23 |
| Leaside..... | 288 | 235 | 14.2 | 101 | 136 | 8.2 | 187 | 99 | 6.0 | 5 | 18 | 3 | 13 |
| London..... | 2,428 | 2,496 | 24.5 | 1,074 | 1,050 | 10.3 | 1,354 | 1,446 | 14.2 | 62 | 26 | 62 | 25 |
| Mimico..... | 308 | 334 | 24.4 | 107 | 92 | 6.7 | 201 | 242 | 17.7 | 5 | 18 | 5 | 15 |
| New Toronto..... | 233 | 234 | 20.2 | 81 | 85 | 7.4 | 152 | 149 | 12.8 | 3 | 13 | 3 | 13 |
| Niagara Falls..... | 595 | 571 | 24.2 | 233 | 253 | 10.7 | 362 | 318 | 13.5 | 18 | 30 | 9 | 16 |
| North Bay..... | 558 | 630 | 30.0 | 182 | 181 | 8.6 | 376 | 449 | 21.4 | 18 | 32 | 16 | 25 |
| Orillia..... | 375 | 365 | 26.3 | 134 | 152 | 11.0 | 241 | 213 | 15.3 | 13 | 34 | 11 | 30 |
| Oshawa..... | 1,239 | 1,501 | 29.8 | 325 | 323 | 6.4 | 914 | 1,178 | 23.4 | 37 | 30 | 40 | 27 |
| Ottawa..... | 5,325 | 5,620 | 25.3 | 2,006 | 2,137 | 9.6 | 3,319 | 3,483 | 15.7 | 166 | 31 | 167 | 30 |
| Owen Sound..... | 412 | 438 | 25.8 | 187 | 192 | 11.3 | 225 | 246 | 14.5 | 13 | 32 | 8 | 18 |
| Pembroke..... | 430 | 518 | 33.6 | 129 | 175 | 11.3 | 301 | 343 | 22.3 | 20 | 47 | 24 | 46 |
| Peterborough..... | 1,104 | 1,069 | 25.0 | 349 | 407 | 9.5 | 755 | 662 | 15.5 | 28 | 25 | 32 | 30 |
| Port Arthur..... | 956 | 995 | 26.1 | 347 | 349 | 9.2 | 609 | 646 | 16.9 | 24 | 25 | 31 | 31 |
| Port Colborne..... | 360 | 388 | 27.7 | 101 | 95 | 6.8 | 259 | 293 | 20.9 | 12 | 32 | 10 | 26 |
| St. Catharines..... | 903 | 886 | 22.3 | 369 | 424 | 10.7 | 534 | 462 | 11.6 | 21 | 23 | 24 | 27 |
| St. Thomas..... | 405 | 391 | 20.4 | 233 | 237 | 12.4 | 172 | 154 | 8.0 | 10 | 24 | 8 | 20 |
| Sarnia..... | 1,188 | 1,315 | 30.3 | 291 | 329 | 7.6 | 897 | 986 | 22.7 | 38 | 32 | 25 | 19 |
| Sault Ste. Marie..... | 1,014 | 1,071 | 28.7 | 292 | 290 | 7.8 | 722 | 781 | 20.9 | 26 | 25 | 15 | 14 |
| Stratford..... | 432 | 445 | 22.3 | 218 | 241 | 12.1 | 214 | 204 | 10.2 | 12 | 28 | 9 | 20 |
| Sudbury..... | 1,623 | 1,669 | 35.9 | 303 | 312 | 6.7 | 1,320 | 1,357 | 29.2 | 54 | 34 | 42 | 25 |
| Timmins..... | 821 | 805 | 29.2 | 202 | 243 | 8.8 | 619 | 562 | 20.4 | 31 | 38 | 26 | 32 |
| Toronto..... | 14,750 | 15,106 | 22.6 | 7,630 | 7,377 | 11.0 | 7,120 | 7,729 | 11.6 | 372 | 25 | 381 | 25 |
| Trenton..... | 366 | 387 | 33.7 | 89 | 98 | 8.5 | 277 | 289 | 25.2 | 12 | 32 | 8 | 21 |
| Waterloo..... | 368 | 474 | 29.0 | 96 | 112 | 6.8 | 272 | 362 | 22.2 | 7 | 18 | 5 | 11 |
| Welland..... | 427 | 367 | 22.4 | 118 | 151 | 9.2 | 309 | 216 | 13.2 | 10 | 23 | 9 | 25 |
| Windsor..... | 3,110 | 3,027 | 24.8 | 1,105 | 1,089 | 9.9 | 2,005 | 1,938 | 15.9 | 94 | 30 | 92 | 30 |
| Woodstock..... | 390 | 462 | 25.2 | 167 | 179 | 9.8 | 223 | 283 | 15.4 | 8 | 19 | 9 | 19 |
| Manitoba— | | | | | | | | | | | | | |
| Brandon..... | 555 | 643 | 25.9 | 201 | 198 | 8.0 | 354 | 445 | 17.9 | 14 | 26 | 14 | 22 |
| St. Boniface..... | 753 | 821 | 28.5 | 209 | 290 | 10.1 | 544 | 531 | 18.4 | 20 | 27 | 22 | 27 |
| Winnipeg..... | 5,766 | 6,123 | 24.0 | 2,408 | 2,469 | 9.7 | 3,358 | 3,654 | 14.3 | 147 | 26 | 144 | 24 |
| Saskatchewan— | | | | | | | | | | | | | |
| Moose Jaw..... | 774 | 887 | 30.0 | 287 | 284 | 9.6 | 487 | 603 | 20.4 | 21 | 27 | 25 | 28 |
| Prince Albert..... | 558 | 608 | 29.9 | 133 | 161 | 7.9 | 425 | 447 | 22.0 | 16 | 29 | 23 | 38 |
| Regina..... | 2,143 | 2,609 | 29.1 | 589 | 677 | 7.5 | 1,554 | 1,932 | 21.6 | 49 | 23 | 66 | 25 |
| Saskatoon..... | 1,811 | 2,217 | 30.4 | 529 | 595 | 8.2 | 1,282 | 1,622 | 22.2 | 50 | 28 | 47 | 21 |
| Alberta— | | | | | | | | | | | | | |
| Calgary..... | 4,462 | 5,851 | 32.2 | 1,304 | 1,362 | 7.5 | 3,158 | 4,489 | 24.7 | 119 | 27 | 99 | 17 |
| Edmonton..... | 6,481 | 8,037 | 35.6 | 1,346 | 1,463 | 6.5 | 5,135 | 6,574 | 29.1 | 151 | 23 | 175 | 22 |
| Lethbridge..... | 816 | 871 | 29.6 | 195 | 210 | 7.1 | 621 | 661 | 22.0 | 20 | 25 | 27 | 31 |
| Medicine Hat..... | 464 | 572 | 27.5 | 173 | 202 | 9.7 | 291 | 370 | 17.8 | 9 | 20 | 10 | 17 |
| British Columbia— | | | | | | | | | | | | | |
| New Westminster..... | 584 | 632 | 20.0 | 272 | 331 | 10.5 | 312 | 301 | 9.5 | 11 | 19 | 14 | 22 |
| North Vancouver..... | 647 | 582 | 29.2 | 190 | 195 | 9.8 | 457 | 387 | 19.4 | 13 | 19 | 14 | 24 |
| Penticton..... | 247 | 255 | 21.4 | 71 | 109 | 9.2 | 176 | 146 | 12.2 | 8 | 32 | 4 | 16 |
| Trail..... | 380 | 359 | 31.5 | 74 | 88 | 7.7 | 306 | 271 | 23.8 | 8 | 21 | 8 | 22 |
| Vancouver..... | 7,738 | 7,876 | 21.5 | 4,223 | 4,472 | 12.2 | 3,515 | 3,404 | 9.3 | 171 | 22 | 167 | 21 |
| Victoria..... | 1,159 | 1,272 | 23.3 | 768 | 806 | 14.8 | 391 | 466 | 8.5 | 25 | 21 | 28 | 22 |

¹ As at the 1951 Census.² Per 1,000 population.³ Per 1,000 live births.

Section 2.—Births*

The Canadian birth rate in 1921 was 29 per 1,000 population. As a rate of 35 is very high for countries of modern western civilization, the Canadian rate had probably not fallen far, nor for long, before 1921. It fell continuously until 1937 when it reached a low of 20, but as a result of economic recovery and the War, it rose to 22 in 1940, 24 in 1943 and a record high of 28.9 in 1947. Since then the rate has fluctuated moderately between just over 27 in 1950 and 1951 and 28.5 in 1954. The 1956 figure was 28.0.

The birth rates in most provinces followed similar trends but there were some regional differences in the birth rate pattern in recent years. Although all provinces had record high rates immediately following World War II, average birth rates in Ontario and the western provinces were higher during 1951-55 than those for the 1946-50 period, while those for Quebec and the Maritimes were lower. In fact, Ontario, British Columbia and Alberta had all-time record high crude birth rates during the three years 1954 to 1956.

It has always been assumed that the Province of Quebec has had the highest birth rate in Canada, but Table 1 shows that since the late 1930's or early 1940's Newfoundland and New Brunswick have had higher births rates than Quebec. In 1956, Newfoundland had a crude rate of 35.0, followed by Alberta with a rate of 31.1, New Brunswick 29.9 and Quebec 29.4; Manitoba and British Columbia had the lowest rates with 25.8 and 25.9 respectively. However these crude rates are based on total population and therefore do not reflect the fertility of the women who are of reproductive age in the different provinces. A more accurate measure of fertility is the rate based on the number of married women in the population in the reproductive age group, 15 to 49. The following figures, based on the 1956 Census and births in 1956 give the birth rates per 1,000 married women in the age group 15 to 49 by province:—

| | | | | | |
|---------------------------|-----|-----------------------|-----|-------------|-----|
| Newfoundland..... | 242 | Ontario..... | 146 | Yukon..... | 199 |
| Prince Edward Island..... | 186 | Manitoba..... | 148 | N.W.T..... | 261 |
| Nova Scotia..... | 167 | Saskatchewan..... | 163 | | |
| New Brunswick..... | 197 | Alberta..... | 172 | CANADA..... | 164 |
| Quebec..... | 188 | British Columbia..... | 141 | | |

On this basis if we exclude the Yukon and Northwest Territories†, Newfoundland still had the highest fertility rate followed by New Brunswick and Quebec, and British Columbia had the lowest.

Also, contrary to popular impression, since 1953 more babies were born each year in Ontario than in the Province of Quebec; in 1956, 143,516 babies were born to Ontario mothers as compared with 135,884 to Quebec mothers. A record total of 450,739 were born to Canadian mothers in 1956, 7,802 more than in the previous year.

Sex of Live Births.—Wherever birth statistics have been collected they have shown an excess of male over female births. No conclusive explanation of this excess has yet been given. Nevertheless it is so much of an accepted statistical fact that a proper ratio of male to female births has become one of the criteria of complete registration. The number of males to every 1,000 females born in Canada in 1941-54 varied between 1,052 and 1,067. In 1956 there were 1,058 males born for every 1,000 females. Variations in the provincial sex ratios result from chance variation because of the relatively small number of births involved—the smaller the total number of births, the greater the chance of wide sex-ratio variations from year to year.

* For international comparisons see Section 7, pp. 230-231.

† Most of the population of these areas, particularly the Northwest Territories, is made up of Indians and Eskimos whose fertility rate is considerably higher than that of white women.

3.—Sex Ratio of Live Births by Province 1921-56

| Province and Year | Male | Female | Males to 1,000 Females | Province and Year | Male | Female | Males to 1,000 Females |
|------------------------|--------|--------|------------------------|--------------------------------|---------|---------|------------------------|
| No. | No. | No. | No. | No. | No. | No. | No. |
| Newfoundland.....1951 | 5,984 | 5,754 | 1,040 | Manitoba—concl. 1951 | 10,374 | 9,568 | 1,084 |
| 1955 | 7,505 | 7,252 | 1,035 | 1955 | 11,468 | 10,929 | 1,049 |
| 1956 | 7,399 | 7,142 | 1,036 | 1956 | 11,214 | 10,731 | 1,045 |
| P.E. Island.....1921 | 1,073 | 1,083 | 991 | Saskatchewan.....1921 | 11,620 | 10,873 | 1,069 |
| 1931 | 998 | 881 | 1,132 | 1931 | 10,942 | 10,389 | 1,053 |
| 1941 | 1,078 | 971 | 1,110 | 1941 | 9,472 | 8,992 | 1,053 |
| 1951 | 1,373 | 1,278 | 1,074 | 1951 | 11,107 | 10,626 | 1,045 |
| 1955 | 1,455 | 1,329 | 1,095 | 1955 | 12,605 | 12,141 | 1,038 |
| 1956 | 1,313 | 1,344 | 977 | 1956 | 12,409 | 11,650 | 1,065 |
| Nova Scotia.....1921 | 6,695 | 6,326 | 1,058 | Alberta.....1921 | 8,493 | 8,068 | 1,053 |
| 1931 | 5,931 | 5,684 | 1,043 | 1931 | 8,938 | 8,314 | 1,075 |
| 1941 | 7,074 | 6,829 | 1,036 | 1941 | 8,882 | 8,426 | 1,054 |
| 1951 | 8,842 | 8,283 | 1,067 | 1951 | 13,760 | 13,243 | 1,039 |
| 1955 | 9,746 | 9,221 | 1,057 | 1955 | 17,728 | 16,629 | 1,066 |
| 1956 | 9,970 | 9,136 | 1,091 | 1956 | 17,985 | 16,966 | 1,060 |
| New Brunswick.....1921 | 5,942 | 5,523 | 1,076 | British Columbia....1921 | 5,549 | 5,104 | 1,087 |
| 1931 | 5,548 | 5,253 | 1,056 | 1931 | 5,350 | 5,054 | 1,059 |
| 1941 | 6,200 | 6,072 | 1,021 | 1941 | 7,694 | 7,344 | 1,048 |
| 1951 | 8,190 | 7,885 | 1,039 | 1951 | 14,418 | 13,659 | 1,056 |
| 1955 | 8,463 | 8,146 | 1,039 | 1955 | 17,366 | 16,772 | 1,035 |
| 1956 | 8,594 | 7,979 | 1,077 | 1956 | 18,443 | 17,798 | 1,036 |
| Quebec.....1921 | 46,705 | 42,044 | 1,111 | Yukon.....1951 | 173 | 169 | 1,024 |
| 1931 | 43,051 | 40,555 | 1,062 | 1955 | 267 | 257 | 1,039 |
| 1941 | 45,905 | 43,304 | 1,060 | 1956 | 263 | 218 | 1,206 |
| 1951 | 62,160 | 58,770 | 1,058 | Northwest Territories.....1951 | 317 | 332 | 955 |
| 1955 | 68,681 | 64,691 | 1,062 | 1955 | 366 | 366 | 1,000 |
| 1956 | 70,016 | 65,868 | 1,063 | 1956 | 410 | 375 | 1,093 |
| Ontario.....1921 | 38,307 | 35,845 | 1,069 | Canada.....1921 ¹ | 133,839 | 123,889 | 1,080 |
| 1931 | 35,609 | 33,600 | 1,060 | 1931 ¹ | 123,622 | 116,851 | 1,058 |
| 1941 | 37,254 | 35,008 | 1,064 | 1941 ¹ | 131,175 | 124,142 | 1,057 |
| 1951 | 59,220 | 55,607 | 1,065 | 1951 | 195,918 | 185,174 | 1,058 |
| 1955 | 71,732 | 67,822 | 1,058 | 1955 | 227,382 | 215,555 | 1,055 |
| 1956 | 73,681 | 69,835 | 1,055 | 1956 | 231,697 | 219,042 | 1,058 |
| Manitoba.....1921 | 9,455 | 9,023 | 1,048 | | | | |
| 1931 | 7,255 | 7,121 | 1,019 | | | | |
| 1941 | 7,616 | 7,196 | 1,058 | | | | |

¹ Excludes Newfoundland and the Yukon and Northwest Territories.

Hospitalized Births.—In 1956 over 88 p.c. of all Canadian births occurred in hospital. Although the proportions of hospitalized births have increased steadily since 1921 in all provinces these proportions still vary widely. The existence of prepaid or provincially sponsored hospital, maternity or medical care plans in some provinces, the unavailability of hospital facilities in others—particularly in remote rural areas—and preference for home delivery in some local areas are among the factors accounting for provincial variations in this respect. The noticeable increases in hospitalized births within recent years in those provinces that previously had the lowest proportion may be partly the result of increased hospital services and facilities being provided in those areas.

4.—Percentage of Live Births Hospitalized by Province 1931-56

| Year | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Yukon | N.W.T. | Canada |
|-----------|--------|------|------|------|------|------|-------|-------|------|-------|--------|--------|
| | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. |
| 1931..... | 11.2 | 19.0 | 12.1 | 7.3 | 38.2 | 43.6 | 32.5 | 47.8 | 65.0 | .. | .. | 26.8 |
| 1941..... | 32.7 | 50.4 | 30.8 | 17.6 | 67.5 | 73.6 | 63.2 | 77.1 | 87.3 | .. | .. | 48.9 |
| 1951..... | 88.3 | 87.2 | 70.7 | 53.0 | 93.1 | 93.1 | 95.2 | 93.6 | 97.3 | 87.4 | 32.8 | 79.1 |
| 1955..... | 93.6 | 93.3 | 83.4 | 66.6 | 96.7 | 95.6 | 97.7 | 95.0 | 98.1 | 89.3 | 45.5 | 86.5 |
| 1956..... | 95.2 | 93.9 | 84.7 | 71.2 | 97.3 | 95.8 | 97.6 | 96.6 | 98.3 | 87.7 | 44.6 | 88.4 |

Births in Urban Centres.—Table 2, pp. 199-200, shows the number of births in 1956, regardless of where they occurred, to mothers residing in urban centres of 10,000 population or over. Because of the much greater proportion of young married couples in these areas, the crude birth rates are, on the whole, much higher than in other areas.

Illegitimacy.*—In 1956 less than 4 p.c. of the live births in Canada were illegitimate. This percentage is low compared with that of many countries of the world. In the five-year period 1926-30 it was 3 p.c., whereas the average of the years 1951-55 was 3.8 p.c.

5.—Illegitimate Live Births and Percentages of Total Live Births by Province 1921-56

| Year | Nfld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Yukon | N.W.T. | Canada ¹ |
|----------------------------------|-------|--------|-------|------|-------|-------|-------|-------|-------|-------|-------|--------|---------------------|
| ILLEGITIMATE LIVE BIRTHS | | | | | | | | | | | | | |
| | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| Av. 1921-25.. | .. | 46 | 457 | 245 | .. | 1,658 | 407 | 291 | 321 | 152 | .. | .. | .. |
| " 1926-30.. | 168 | 42 | 558 | 299 | 2,334 | 2,196 | 501 | 489 | 479 | 240 | .. | .. | 7,138 |
| " 1931-35.. | 205 | 74 | 652 | 373 | 2,431 | 2,707 | 501 | 651 | 613 | 330 | .. | .. | 8,333 |
| " 1936-40.. | 246 | 83 | 766 | 415 | 2,539 | 2,939 | 506 | 663 | 643 | 475 | .. | .. | 9,030 |
| " 1941-45.. | 406 | 107 | 1,074 | 591 | 3,093 | 3,751 | 597 | 673 | 852 | 889 | .. | .. | 11,536 |
| " 1946-50.. | 441 | 152 | 1,244 | 754 | 3,382 | 4,256 | 766 | 914 | 1,202 | 1,516 | .. | .. | 14,375 |
| " 1951-55.. | 426 | 139 | 1,082 | 659 | 4,086 | 4,065 | 969 | 1,044 | 1,481 | 1,898 | .. | .. | 15,848 |
| 1951..... | 417 | 138 | 1,147 | 643 | 3,650 | 3,807 | 771 | 971 | 1,272 | 1,633 | 41 | 47 | 14,537 |
| 1952..... | 315 | 118 | 1,041 | 648 | 3,913 | 3,920 | 952 | 994 | 1,310 | 1,857 | 53 | 53 | 15,174 |
| 1953..... | 411 | 145 | 1,034 | 661 | 4,163 | 4,080 | 988 | 1,043 | 1,559 | 1,896 | 39 | 45 | 16,064 |
| 1954..... | 488 | 127 | 1,060 | 658 | 4,420 | 4,251 | 1,094 | 1,128 | 1,562 | 2,042 | 68 | 49 | 16,947 |
| 1955..... | 497 | 168 | 1,126 | 685 | 4,285 | 4,266 | 1,040 | 1,082 | 1,702 | 2,062 | 66 | 55 | 17,034 |
| 1956..... | 529 | 154 | 1,194 | 688 | 4,454 | 4,415 | 1,002 | 1,058 | 1,674 | 2,207 | 60 | 75 | 17,510 |
| PERCENTAGES OF TOTAL LIVE BIRTHS | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| Av. 1921-25.. | .. | 2.3 | 3.8 | 2.2 | .. | 2.3 | 2.5 | 1.3 | 2.1 | 1.5 | .. | .. | .. |
| " 1926-30.. | 2.5 | 2.4 | 5.1 | 2.9 | 2.8 | 3.2 | 3.5 | 2.3 | 3.0 | 2.3 | .. | .. | 3.0 |
| " 1931-35.. | 3.1 | 3.8 | 5.7 | 3.6 | 3.1 | 4.2 | 3.7 | 3.2 | 3.7 | 3.3 | .. | .. | 3.6 |
| " 1936-40.. | 3.2 | 4.0 | 6.4 | 3.7 | 3.2 | 4.6 | 3.7 | 3.6 | 3.9 | 3.9 | .. | .. | 3.9 |
| " 1941-45.. | 4.4 | 4.9 | 7.1 | 4.5 | 3.1 | 4.8 | 3.8 | 3.6 | 4.5 | 5.0 | .. | .. | 4.2 |
| " 1946-50.. | 3.6 | 5.3 | 6.9 | 4.5 | 2.9 | 4.0 | 4.0 | 4.2 | 4.9 | 5.9 | .. | .. | 4.1 |
| " 1951-55.. | 3.2 | 5.1 | 5.9 | 4.0 | 3.2 | 3.2 | 4.5 | 4.4 | 4.8 | 6.1 | .. | .. | 3.8 |
| 1951..... | 3.6 | 5.2 | 6.7 | 4.0 | 3.0 | 3.3 | 3.9 | 4.5 | 4.7 | 5.8 | 12.0 | 7.2 | 3.8 |
| 1952..... | 2.5 | 4.4 | 5.8 | 3.9 | 3.1 | 3.2 | 4.6 | 4.4 | 4.5 | 6.2 | 13.6 | 8.3 | 3.8 |
| 1953..... | 3.2 | 5.3 | 5.7 | 4.0 | 3.2 | 3.1 | 4.7 | 4.4 | 5.0 | 6.0 | 10.2 | 6.7 | 3.8 |
| 1954..... | 3.6 | 4.7 | 5.6 | 4.0 | 3.3 | 3.1 | 4.9 | 4.5 | 4.6 | 6.2 | 16.0 | 7.8 | 3.9 |
| 1955..... | 3.4 | 6.0 | 5.9 | 4.1 | 3.2 | 3.1 | 4.6 | 4.4 | 5.0 | 6.0 | 12.6 | 7.5 | 3.8 |
| 1956..... | 3.6 | 5.8 | 6.2 | 4.2 | 3.3 | 3.1 | 4.6 | 4.4 | 4.8 | 6.1 | 12.5 | 9.6 | 3.9 |

¹ Figures for Newfoundland are included for 1949-56 only; and for the Yukon and Northwest Territories for 1951-56 only.

Stillbirths†—The rate of stillbirths has been falling since 1926 though not equally in all provinces. The rate of stillbirths among unmarried mothers has always been considerably higher than that for married mothers and consequently higher than the over-all rate but this difference has been disappearing in recent years.

* The term "illegitimate", for statistical purposes, does not refer to births conceived out of wedlock but those in which parents reported themselves as not having been married to each other at the time of the birth or the registration of the birth.

† A stillbirth is defined as the birth of a foetus after at least 28 weeks pregnancy which, after complete separation from the mother, does not show any sign of life.

6.—Stillbirths and Rates per 1,000 Live Births by Province 1921-56

| Year | Born to All Mothers | | | | | | | | | | | | | Born to Un-married Mothers ¹ | |
|-----------------------------|---------------------|--------|------|------|-------|-------|------|-------|-------|------|-------|--------|---------------------|--|---------------|
| | Nfld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Yukon | N.W.T. | Canada ² | No. | P.C. of Total |
| STILLBIRTHS | | | | | | | | | | | | | | | |
| | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | | |
| Av. 1921-25 | .. | 57 | 457 | 288 | 2,659 | 3,083 | 546 | 601 | 418 | 295 | .. | .. | 8,403 | .. | .. |
| " 1926-30 | 128 | 43 | 365 | 283 | 2,212 | 2,761 | 479 | 551 | 467 | 297 | .. | .. | 7,458 | 356 | 4.77 |
| " 1931-35 | 141 | 67 | 401 | 302 | 2,337 | 2,284 | 383 | 488 | 421 | 247 | .. | .. | 6,930 | 381 | 5.50 |
| " 1936-40 | 162 | 61 | 334 | 282 | 2,386 | 2,008 | 340 | 393 | 359 | 248 | .. | .. | 6,410 | 337 | 5.26 |
| " 1941-45 | 191 | 50 | 388 | 295 | 2,786 | 1,988 | 345 | 348 | 327 | 309 | .. | .. | 6,838 | 355 | 5.20 |
| " 1946-50 | 215 | 54 | 358 | 320 | 2,898 | 2,020 | 349 | 350 | 385 | 352 | .. | .. | 7,177 | 343 | 4.85 |
| " 1951-55 | 222 | 52 | 337 | 291 | 2,705 | 2,017 | 336 | 313 | 425 | 374 | .. | .. | 7,071 | 314 | 4.58 |
| 1951..... | 189 | 56 | 319 | 293 | 2,768 | 1,975 | 340 | 303 | 402 | 365 | 2 | 11 | 7,023 | 328 | 4.80 |
| 1952..... | 226 | 45 | 369 | 281 | 2,805 | 2,085 | 361 | 314 | 399 | 375 | 6 | 11 | 7,277 | 343 | 4.86 |
| 1953..... | 213 | 55 | 337 | 307 | 2,592 | 1,952 | 345 | 319 | 476 | 375 | 10 | 10 | 6,991 | 291 | 4.29 |
| 1954..... | 242 | 59 | 326 | 313 | 2,805 | 2,027 | 323 | 327 | 418 | 373 | 5 | 13 | 7,231 | 297 | 4.25 |
| 1955..... | 242 | 44 | 332 | 263 | 2,556 | 2,044 | 309 | 300 | 431 | 381 | 6 | 10 | 6,918 | 319 | 4.78 |
| 1956..... | 260 | 51 | 337 | 331 | 2,584 | 1,969 | 316 | 291 | 409 | 413 | 4 | 11 | 6,976 | 311 | 4.63 |
| RATES PER 1,000 LIVE BIRTHS | | | | | | | | | | | | | | Rate per 1,000 Illegitimate Live Births ¹ | |
| | | | | | | | | | | | | | | | |
| Av. 1921-25 | .. | 29.1 | 37.7 | 26.0 | 30.5 | 43.1 | 32.9 | 27.9 | 27.0 | 28.7 | .. | .. | 33.9 | .. | |
| " 1926-30 | 19.0 | 24.8 | 33.1 | 27.4 | 26.7 | 40.2 | 33.3 | 25.9 | 29.3 | 28.7 | .. | .. | 31.5 | 49.9 | |
| " 1931-35 | 21.1 | 34.2 | 34.9 | 28.9 | 29.6 | 35.1 | 28.0 | 24.0 | 25.4 | 24.7 | .. | .. | 30.3 | 45.7 | |
| " 1936-40 | 21.2 | 29.7 | 27.7 | 25.4 | 30.4 | 31.2 | 25.2 | 21.0 | 22.0 | 20.5 | .. | .. | 28.0 | 37.3 | |
| " 1941-45 | 20.5 | 22.8 | 25.6 | 22.6 | 28.5 | 25.6 | 21.8 | 18.9 | 17.4 | 17.5 | .. | .. | 24.7 | 30.8 | |
| " 1946-50 | 17.4 | 18.9 | 19.9 | 19.0 | 25.1 | 19.2 | 18.1 | 16.0 | 15.9 | 13.6 | .. | .. | 20.2 | 24.2 | |
| " 1951-55 | 17.0 | 19.0 | 18.4 | 17.7 | 21.0 | 15.6 | 15.7 | 13.3 | 13.7 | 11.9 | .. | .. | 17.0 | 20.4 | |
| 1951..... | 16.1 | 21.1 | 18.6 | 18.2 | 22.9 | 17.2 | 17.0 | 13.9 | 14.9 | 13.0 | 5.8 | 16.9 | 18.4 | 23.2 | |
| 1952..... | 18.0 | 16.6 | 20.6 | 16.8 | 22.2 | 16.8 | 17.4 | 13.9 | 13.7 | 12.6 | 15.4 | 17.1 | 18.0 | 23.1 | |
| 1953..... | 16.6 | 20.1 | 18.4 | 18.7 | 20.1 | 15.0 | 16.2 | 13.5 | 15.2 | 11.8 | 26.1 | 14.8 | 16.7 | 18.6 | |
| 1954..... | 17.7 | 21.7 | 17.2 | 18.8 | 21.1 | 14.9 | 14.5 | 13.1 | 12.4 | 11.3 | 11.8 | 20.6 | 16.6 | 18.0 | |
| 1955..... | 16.4 | 15.8 | 17.5 | 15.8 | 19.2 | 14.6 | 13.8 | 12.1 | 12.5 | 11.2 | 11.5 | 13.7 | 15.6 | 19.3 | |
| 1956..... | 17.9 | 19.2 | 17.6 | 20.0 | 19.0 | 13.7 | 14.4 | 12.1 | 11.7 | 11.4 | 8.3 | 14.0 | 15.5 | 18.3 | |

¹ Exclusive of Newfoundland.² Figures for Newfoundland are included for 1949-56 only and for the Yukon and Northwest Territories for 1951-56 only.

Multiple Births.—Approximately one confinement in 85 in Canada results in the birth of more than one child. The proportion of stillbirths is higher among multiple than among single births. It is about twice as high for twins and between three and five times as high for triplets.

7.—Single and Multiple Births, Live and Stillborn 1953-56

| Confinements and Births | Numbers | | | | Percentages | | | |
|----------------------------------|-------------------|-------------------|-------------------|----------------|-------------------|-------------------|-------------------|--------------|
| | 1953 ¹ | 1954 ¹ | 1955 ¹ | 1956 | 1953 ¹ | 1954 ¹ | 1955 ¹ | 1956 |
| Confinements | 419,135 | 437,417 | 443,586 | 452,607 | 100.0 | 100.0 | 100.0 | 100.9 |
| Single..... | 414,529 | 432,525 | 438,639 | 447,547 | 98.9 | 98.9 | 98.9 | 98.1 |
| Twin..... | 4,553 | 4,847 | 4,897 | 5,012 | 1.1 | 1.1 | 1.1 | 1.0 |
| Triplet..... | 51 | 44 | 50 | 48 | -- | -- | -- | -- |
| Quadruplet..... | 2 | 1 | — | — | -- | -- | -- | -- |
| Births | 423,796 | 442,355 | 448,583 | 457,715 | 100.0 | 100.0 | 100.0 | 100.0 |
| Single— | | | | | | | | |
| Live..... | 407,898 | 425,615 | 432,089 | 440,916 | 98.4 | 98.4 | 98.5 | 98.5 |
| Stillborn..... | 6,631 | 6,910 | 6,550 | 6,631 | 1.6 | 1.6 | 1.5 | 1.5 |
| Twin— | | | | | | | | |
| Live..... | 8,777 | 9,398 | 9,453 | 9,683 | 96.4 | 96.9 | 96.5 | 96.6 |
| Stillborn..... | 329 | 296 | 341 | 341 | 3.6 | 3.1 | 3.5 | 3.4 |
| Triplet— | | | | | | | | |
| Live..... | 142 | 125 | 139 | 140 | 92.8 | 94.7 | 92.7 | 97.2 |
| Stillborn..... | 11 | 7 | 11 | 4 | 7.2 | 5.3 | 7.3 | 2.8 |
| Quadruplet— | | | | | | | | |
| Live..... | 8 | 4 | — | — | 100.0 | 100.0 | — | — |
| Stillborn..... | — | — | — | — | — | — | — | — |
| Totals, Live Births | 416,825 | 435,142 | 441,681 | 450,739 | 98.4 | 98.4 | 98.5 | 98.5 |
| Totals, Stillborn | 6,971 | 7,213 | 6,902 | 6,976 | 1.6 | 1.6 | 1.5 | 1.5 |

¹ Excludes the Yukon and Northwest Territories.

Fertility Rates.—Sex and age distribution of the population is an important factor in determining birth, death and marriage rates. More than 95 p.c. of children born are to women between the ages of 15 and 50, so that, as noted earlier, variations in the proportion of women of these ages to the population as a whole will cause variations in the crude birth rates of different countries or regions even though the fertility of women at each age may be the same. Measures of fertility which are independent of the sex and age distribution of the population have therefore been devised. The best known of these are age-specific fertility rates and reproduction rates.

Ages of Parents.—Ages of the parents is an important variable in any analysis of birth statistics. The numerical and percentage distribution of legitimate live births by the age group of the parents is given for 1955 and 1956 in Table 8, of illegitimate live births by the age group of the mother in Table 9, and of stillbirths by the age group of the mother in Table 10, as well as the average ages of the parents for each year shown.

About 6 p.c. of the legitimate children born each year are born to mothers under 20 years of age, in about one-third of the births the mother is under 25 years, and in almost two-thirds, under 30 years; in 45 p.c. of all births the father is under 30 years of age. On the other hand one-third of the illegitimate infants born are born to mothers under 20, and an additional one-third to mothers under 25 years of age.

Table 10 illustrates the fact that the risk of having a stillborn child increases with the age of the mother. The stillbirth rate is almost three times as high among mothers 40-44 and about six times as high among those of 45-49 years as it is for mothers under 30. Further, most of the reduction in stillbirths in recent years has been among young mothers.

8.—Legitimate Live Births by Age of Parent 1955 and 1956

(Exclusive of Newfoundland and the Yukon and Northwest Territories in 1955 and of Newfoundland only in 1956)

| Age Group | Fathers | | | | Mothers | | | |
|---------------------------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|
| | 1955 | | 1956 | | 1955 | | 1956 | |
| | No. | p.c. | No. | p.c. | No. | p.c. | No. | p.c. |
| Under 20 years..... | 3,308 | 0.8 | 3,340 | 0.8 | 24,300 | 5.9 | 25,628 | 6.1 |
| 20 — 24 “..... | 63,845 | 15.6 | 66,401 | 15.9 | 112,687 | 27.5 | 115,871 | 27.7 |
| 25 — 29 “..... | 119,590 | 29.2 | 124,172 | 29.7 | 121,669 | 29.6 | 124,576 | 29.7 |
| 30 — 34 “..... | 101,919 | 24.9 | 103,219 | 24.7 | 88,322 | 21.5 | 88,852 | 21.2 |
| 35 — 39 “..... | 64,724 | 15.8 | 65,613 | 15.7 | 47,157 | 11.5 | 48,119 | 11.5 |
| 40 — 44 “..... | 35,533 | 8.7 | 35,249 | 8.4 | 15,105 | 3.7 | 14,868 | 3.5 |
| 45 — 49 “..... | 14,224 | 3.5 | 13,788 | 3.3 | 1,111 | 0.3 | 1,135 | 0.3 |
| 50 years or over..... | 5,936 | 1.5 | 5,956 | 1.4 | 11 | -- | 12 | -- |
| Totals, Stated Ages..... | 409,079 | 100.0 | 417,738 | 100.0 | 410,362 | 100.0 | 419,061 | 100.0 |
| Ages not stated..... | 1,429 | ... | 1,479 | ... | 146 | ... | 156 | ... |
| Totals, All Ages..... | 410,508 | 100.0 | 419,217 | 100.0 | 410,508 | 100.0 | 419,217 | 100.0 |
| Average ages..... | 31.8 | | 31.7 | | 28.4 | | 28.4 | |

9.—Illegitimate Live Births by Age of the Mother 1955 and 1956

(Exclusive of Newfoundland and the Yukon and Northwest Territories in 1955 and of Newfoundland only in 1956)

| Age Group of Mother | 1955 | | 1956 | |
|---------------------------------|---------------|--------------|---------------|--------------|
| | No. | p.c. | No. | p.c. |
| Under 20 years..... | 5,106 | 32.1 | 5,493 | 33.4 |
| 20 — 24 “..... | 5,726 | 36.0 | 5,626 | 34.2 |
| 25 — 29 “..... | 2,642 | 16.6 | 2,783 | 16.9 |
| 30 — 34 “..... | 1,457 | 9.2 | 1,486 | 9.0 |
| 35 — 39 “..... | 746 | 4.7 | 799 | 4.9 |
| 40 — 44 “..... | 227 | 1.4 | 255 | 1.5 |
| 45 — 49 “..... | 18 | 0.1 | 18 | 0.1 |
| 50 years or over..... | — | — | 1 | -- |
| Totals, Stated Ages..... | 15,922 | 100.0 | 16,461 | 100.0 |
| Ages not stated..... | 494 | ... | 520 | ... |
| Totals, All Ages..... | 16,416 | 100.0 | 16,981 | 100.0 |
| Average ages of mothers..... | 24.1 | | 24.1 | |

10.—Stillbirths and Rates per 1,000 Live Births by Age of Mother 1955 and 1956

(Exclusive of Newfoundland and the Yukon and Northwest Territories in 1955 and of Newfoundland only in 1956)

| Age Group of Mother | Stillbirths | | | | Rates per 1,000 Live Births | |
|---------------------------------|--------------|--------------|--------------|--------------|--------------------------------|-------------|
| | 1955 | | 1956 | | 1955 | 1956 |
| | No. | p.c. | No. | p.c. | | |
| Under 20 years..... | 359 | 5.4 | 411 | 6.2 | 12.2 | 13.2 |
| 20 — 24 "..... | 1,463 | 22.1 | 1,349 | 20.2 | 12.4 | 11.1 |
| 25 — 29 "..... | 1,664 | 25.1 | 1,631 | 24.4 | 13.4 | 12.8 |
| 30 — 34 "..... | 1,432 | 21.6 | 1,507 | 22.6 | 16.0 | 16.7 |
| 35 — 39 "..... | 1,123 | 16.9 | 1,176 | 17.6 | 23.4 | 24.0 |
| 40 — 44 "..... | 501 | 7.6 | 528 | 7.9 | 32.7 | 34.9 |
| 45 — 49 "..... | 86 | 1.3 | 75 | 1.1 | 76.2 | 65.0 |
| 50 years or over..... | 1 | -- | 1 | -- | -- | -- |
| Totals, Stated Ages..... | 6,629 | 100.0 | 6,678 | 100.0 | ... | ... |
| Ages not stated..... | 31 | ... | 38 | ... | ... | ... |
| Totals, All Ages..... | 6,660 | 100.0 | 6,716 | 100.0 | 15.6 | 15.4 |
| Average ages of mothers..... | 30.1 | | 30.3 | | ... | ... |

Order of Birth.—Table 11 shows the order of birth of all live-born infants in 1955 and 1956 according to the age of the mother. As would be expected 23,315, or three out of every four, of the 30,975 infants born to mothers under 20 years of age were a first child, whereas almost six out of every ten of the children born to mothers of 20-24 years were a second or later child. This is a reflection of the earlier marriages and heavy fertility of recent years.

Table 12 summarizes the pattern of family formation since 1927. The results of the immediate postwar 'baby boom' are obvious—57.9 p.c. of the infants born in 1947 was a first or second child while 50.5 p.c. of the 1956 baby crop was a third or fourth child.

11.—Order of Birth of Live-Born Children by Age of Mother 1955 and 1956

(Exclusive of Newfoundland and the Yukon and Northwest Territories in 1955 and of Newfoundland only in 1956)

| Order of Birth of Child | Age of Mother | | | | | | | | | | Per- centage of Total |
|-------------------------------|---------------------|---------------|----------------|----------------|---------------|---------------|---------------|------------------|----------------------|----------------|--------------------------------|
| | Under 15 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40-44 | 45 or Over | Age Not Stated | All Ages | |
| 1955 | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | |
| 1st child..... | 141 | 22,163 | 51,976 | 26,687 | 9,956 | 3,367 | 815 | 50 | 479 | 115,634 | 27.1 |
| 2nd "..... | 1 | 5,879 | 38,133 | 35,075 | 16,814 | 5,558 | 1,133 | 55 | 48 | 102,696 | 24.1 |
| 3rd "..... | — | 1,042 | 17,970 | 27,375 | 19,805 | 7,859 | 1,648 | 73 | 25 | 75,797 | 17.8 |
| 4th "..... | — | 163 | 6,982 | 16,601 | 15,088 | 7,540 | 1,875 | 88 | 17 | 48,354 | 11.3 |
| 5th "..... | — | 12 | 2,364 | 9,263 | 9,983 | 5,888 | 1,747 | 105 | 11 | 29,373 | 6.9 |
| 6th "..... | — | 4 | 691 | 4,957 | 6,561 | 4,530 | 1,437 | 85 | 8 | 18,273 | 4.3 |
| 7th "..... | — | — | 209 | 2,517 | 4,357 | 3,458 | 1,235 | 100 | 3 | 11,879 | 2.8 |
| 8th "..... | — | — | 56 | 1,139 | 2,913 | 2,685 | 1,111 | 86 | 2 | 7,992 | 1.9 |
| 9th "..... | — | — | 19 | 440 | 1,934 | 2,043 | 905 | 91 | 1 | 5,433 | 1.3 |
| 10th "..... | — | — | 4 | 161 | 1,148 | 1,683 | 756 | 59 | 2 | 3,813 | 0.9 |
| 11th "..... | — | — | 4 | 62 | 619 | 1,203 | 686 | 65 | 1 | 2,640 | 0.6 |
| 12th "..... | — | — | — | 17 | 344 | 857 | 575 | 54 | — | 1,847 | 0.4 |
| 13th "..... | — | — | — | 9 | 114 | 537 | 416 | 58 | 2 | 1,136 | 0.3 |
| 14th "..... | — | — | — | 1 | 81 | 325 | 362 | 39 | — | 808 | 0.2 |
| 15th "..... | — | — | — | 2 | 39 | 184 | 222 | 50 | — | 497 | 0.1 |
| 16th "..... | — | — | — | 1 | 10 | 87 | 185 | 29 | — | 312 | 0.1 |
| 17th "..... | — | — | — | — | 3 | 46 | 98 | 29 | — | 176 | 0.1 |
| 18th "..... | — | — | — | — | 5 | 32 | 57 | 8 | — | 102 | 0.1 |
| 19th "..... | — | — | — | — | — | 11 | 34 | 7 | — | 52 | 0.1 |
| 20th or over..... | — | — | — | — | — | 3 | 33 | 7 | — | 43 | 0.1 |
| Not stated..... | — | 1 | 5 | 4 | 5 | 7 | 2 | 2 | 41 | 67 | 1 |
| Totals..... | 142 | 29,264 | 118,413 | 124,311 | 89,779 | 47,903 | 15,332 | 1,140 | 640 | 426,924 | 100.0 |

¹ Less than 0.1 p.c.

11.—Order of Birth of Live-Born Children by Age of Mother 1955 and 1956—concluded

| Order of Birth of Child | Age of Mother | | | | | | | | | | Percentage of Total |
|-------------------------|---------------|--------|---------|---------|--------|--------|--------|------------|----------------|----------|---------------------|
| | Under 15 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40-44 | 45 or Over | Age Not Stated | All Ages | |
| 1956 | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | |
| 1st child..... | 144 | 23,315 | 52,026 | 26,818 | 9,713 | 3,413 | 773 | 52 | 466 | 116,720 | 26.8 |
| 2nd "..... | 2 | 6,388 | 39,301 | 35,409 | 16,545 | 5,658 | 1,118 | 43 | 51 | 104,515 | 24.0 |
| 3rd "..... | — | 1,074 | 19,011 | 25,608 | 19,432 | 7,791 | 1,605 | 68 | 24 | 77,613 | 17.8 |
| 4th "..... | — | 155 | 7,456 | 17,151 | 15,460 | 7,810 | 1,794 | 96 | 20 | 49,942 | 11.4 |
| 5th "..... | — | 17 | 2,580 | 9,520 | 10,212 | 6,064 | 1,701 | 102 | 12 | 30,208 | 6.9 |
| 6th "..... | — | 2 | 827 | 5,130 | 6,783 | 4,578 | 1,506 | 91 | 6 | 18,923 | 4.3 |
| 7th "..... | — | — | 197 | 2,670 | 4,555 | 3,539 | 1,229 | 105 | 11 | 12,306 | 2.8 |
| 8th "..... | — | — | 48 | 1,236 | 3,059 | 2,743 | 997 | 85 | 1 | 8,169 | 1.9 |
| 9th "..... | — | — | 17 | 492 | 1,982 | 2,179 | 944 | 66 | 1 | 5,681 | 1.3 |
| 10th "..... | — | — | 3 | 197 | 1,269 | 1,731 | 804 | 84 | 2 | 4,090 | 0.9 |
| 11th "..... | — | — | 1 | 69 | 687 | 1,280 | 668 | 66 | 1 | 2,772 | 0.6 |
| 12th "..... | — | — | 1 | 24 | 358 | 850 | 568 | 75 | 2 | 1,878 | 0.4 |
| 13th "..... | — | — | — | 9 | 156 | 534 | 472 | 68 | — | 1,239 | 0.3 |
| 14th "..... | — | — | — | 4 | 58 | 347 | 314 | 48 | — | 771 | 0.2 |
| 15th "..... | — | — | — | 1 | 26 | 206 | 218 | 41 | — | 492 | 0.1 |
| 16th "..... | — | — | — | — | 19 | 90 | 172 | 23 | — | 304 | 0.1 |
| 17th "..... | — | — | — | — | 3 | 50 | 112 | 14 | — | 179 | 1 |
| 18th "..... | — | — | — | — | 1 | 22 | 54 | 18 | — | 95 | 1 |
| 19th "..... | — | — | — | — | 2 | 8 | 32 | 9 | — | 51 | 1 |
| 20th or over..... | — | — | — | — | — | 7 | 35 | 11 | — | 53 | 1 |
| Not stated..... | — | 24 | 29 | 21 | 18 | 18 | 7 | 1 | 79 | 197 | 1 |
| Totals..... | 146 | 30,975 | 121,497 | 127,359 | 90,338 | 48,918 | 15,123 | 1,166 | 676 | 436,198 | 100.0 |

¹ Less than 0.1 p.c.

12.—Percentage Distribution of Legitimate Live Births by Birth Order 1927-56

(Exclusive of Newfoundland for all years and the Yukon and Northwest Territories for all years except 1956)

| Year | 1st child | 2nd child | 3rd child | 4th and later children | Total |
|-----------|-----------|-----------|-----------|------------------------|-------|
| 1927..... | 21.0 | 17.6 | 14.0 | 47.4 | 100.0 |
| 1928..... | 21.8 | 17.8 | 13.9 | 46.5 | 100.0 |
| 1929..... | 22.9 | 18.4 | 13.8 | 44.8 | 100.0 |
| 1930..... | 23.6 | 18.8 | 13.7 | 43.9 | 100.0 |
| 1931..... | 23.0 | 19.3 | 14.0 | 43.8 | 100.0 |
| 1932..... | 22.1 | 19.4 | 14.2 | 44.3 | 100.0 |
| 1933..... | 21.7 | 19.3 | 14.6 | 44.4 | 100.0 |
| 1934..... | 22.2 | 19.0 | 14.4 | 44.4 | 100.0 |
| 1935..... | 24.0 | 18.9 | 14.0 | 43.1 | 100.0 |
| 1936..... | 25.3 | 19.2 | 13.4 | 42.1 | 100.0 |
| 1937..... | 26.6 | 19.8 | 13.4 | 40.2 | 100.0 |
| 1938..... | 28.2 | 20.6 | 13.3 | 38.0 | 100.0 |
| 1939..... | 28.6 | 21.3 | 13.7 | 36.4 | 100.0 |
| 1940..... | 30.3 | 22.1 | 13.8 | 33.9 | 100.0 |
| 1941..... | 32.7 | 21.8 | 13.5 | 32.0 | 100.0 |
| 1942..... | 32.8 | 23.1 | 13.4 | 30.6 | 100.0 |
| 1943..... | 32.2 | 23.7 | 14.2 | 29.9 | 100.0 |
| 1944..... | 30.0 | 24.2 | 14.9 | 30.9 | 100.0 |
| 1945..... | 28.9 | 24.3 | 15.4 | 31.4 | 100.0 |
| 1946..... | 31.0 | 24.8 | 15.2 | 29.0 | 100.0 |
| 1947..... | 33.0 | 24.9 | 15.0 | 27.2 | 100.0 |
| 1948..... | 29.6 | 26.0 | 15.9 | 28.5 | 100.0 |
| 1949..... | 27.8 | 26.6 | 16.8 | 28.8 | 100.0 |
| 1950..... | 26.8 | 26.2 | 17.4 | 29.6 | 100.0 |
| 1951..... | 26.7 | 25.8 | 17.6 | 29.9 | 100.0 |
| 1952..... | 27.0 | 24.9 | 17.9 | 30.3 | 100.0 |
| 1953..... | 26.5 | 25.0 | 18.0 | 30.6 | 100.0 |
| 1954..... | 26.2 | 24.6 | 18.0 | 31.2 | 100.0 |
| 1955..... | 25.5 | 24.4 | 18.2 | 31.9 | 100.0 |
| 1956..... | 25.2 | 24.3 | 18.3 | 32.2 | 100.0 |

Section 3.—Deaths*

Since 1931 the Canadian death rate has fluctuated between 10.3 and 8.2 per 1,000 of the population, declining in recent years to a record low of 8.2 in 1954 through 1956. Table 1, pp. 196-198, shows that this decline has been apparent in varying degrees in all provinces. The generally low rates in the Prairie Provinces are partly the result of their younger average population; the uniformly higher rate in British Columbia is the result of the high proportion of people in the older age groups.

Subsection 1.—General Mortality

Sex and Age Distribution of Deaths.—Despite reductions in infant mortality over the past 25 or 30 years, more deaths still occur in the first year of life than in any other single year. Of the 107,000 deaths occurring in 1926, 31,000 or almost 30 p.c. were of children under five years of age and three-quarters of those were of children under one year of age. Of approximately 132,000 deaths in 1956, close to 17,000 or nearly 13 p.c. were of children under five years of age and over 85 p.c. of those were under one year. Most of the reduction took place among children over the age of one month but there was a notable decrease in all childhood ages up to five years.

Tremendous reductions have taken place in the mortality pattern since the early 1920's, with the most important reductions in the childhood and early adult ages. In 1931 over 19 p.c. of all male deaths were of persons five to 45 years of age; in 1956 these accounted for less than 11 p.c. of total deaths. The reduction in mortality among females in this age group is equally remarkable, the proportion dropping from almost 22 p.c. to approximately 8 p.c. Death rates for males up to age 45 have been roughly halved during the past 25 years; those for females in the same ages have been reduced as much as three to four times.

These reductions in the mortality rates in early and middle years of life have had the effect of increasing the number of people in the older age groups and of raising the average age of the population as a whole. As a consequence much larger proportions of deaths are now occurring at the older ages and have raised the average age at death. In 1921 the average age at death of males was 39.0 years and of females 41.1 years; by 1956 this had advanced to 58.0 and 60.6 respectively. These trends are indicated clearly in Table 13.

* For international comparisons, see Section 7, pp. 230-231.

13.—Distribution of Deaths by Age and Sex 1921, 1931, 1941, 1955 and 1956

| Age Group | 1921 ¹ | | 1931 ² | | 1941 ² | | 1955 | | 1956 | |
|-----------------------|-------------------|--------|-------------------|--------|-------------------|--------|--------|--------|--------|--------|
| | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female |
| NUMBERS | | | | | | | | | | |
| Under 5 years..... | 10,827 | 8,303 | 14,511 | 11,226 | 10,666 | 8,014 | 9,266 | 6,899 | 9,393 | 7,351 |
| 5 — 9 "..... | 1,166 | 979 | 1,241 | 963 | 888 | 670 | 666 | 435 | 697 | 416 |
| 10 — 14 "..... | 674 | 611 | 821 | 806 | 787 | 536 | 474 | 283 | 452 | 264 |
| 15 — 19 "..... | 866 | 741 | 1,311 | 1,132 | 1,118 | 823 | 724 | 314 | 733 | 294 |
| 20 — 24 "..... | 947 | 946 | 1,502 | 1,453 | 1,332 | 1,039 | 949 | 352 | 969 | 340 |
| 25 — 29 "..... | 1,046 | 1,035 | 1,388 | 1,414 | 1,317 | 1,173 | 947 | 484 | 999 | 491 |
| 30 — 34 "..... | 1,002 | 1,051 | 1,301 | 1,432 | 1,211 | 1,148 | 1,058 | 681 | 1,109 | 592 |
| 35 — 39 "..... | 1,263 | 1,223 | 1,512 | 1,574 | 1,497 | 1,242 | 1,181 | 840 | 1,301 | 843 |
| 40 — 44 "..... | 1,254 | 1,073 | 1,888 | 1,493 | 1,744 | 1,464 | 1,776 | 1,149 | 1,752 | 1,188 |
| 45 — 49 "..... | 1,345 | 1,066 | 2,314 | 1,738 | 2,416 | 1,817 | 2,517 | 1,525 | 2,661 | 1,571 |
| 50 — 54 "..... | 1,492 | 1,288 | 2,855 | 1,993 | 3,355 | 2,227 | 3,659 | 1,941 | 3,649 | 2,013 |
| 55 — 59 "..... | 1,727 | 1,337 | 3,057 | 2,246 | 4,394 | 2,851 | 4,775 | 2,738 | 5,002 | 2,712 |
| 60 — 64 "..... | 2,121 | 1,652 | 3,583 | 2,855 | 5,288 | 3,483 | 6,335 | 3,650 | 6,383 | 3,826 |
| 65 — 69 "..... | 2,277 | 1,976 | 4,249 | 3,348 | 6,057 | 4,412 | 8,463 | 5,025 | 8,482 | 5,047 |
| 70 — 74 "..... | 2,550 | 2,184 | 4,867 | 4,073 | 6,495 | 4,981 | 9,744 | 6,618 | 10,013 | 6,786 |
| 75 — 79 "..... | 2,378 | 2,135 | 4,368 | 4,029 | 6,421 | 5,461 | 9,359 | 7,258 | 9,404 | 7,607 |
| 80 — 84 "..... | 1,833 | 1,799 | 3,206 | 3,215 | 5,020 | 4,906 | 7,097 | 6,368 | 7,385 | 6,787 |
| 85 years or over..... | 1,643 | 1,912 | 2,555 | 2,998 | 3,946 | 4,540 | 5,893 | 7,033 | 6,192 | 7,257 |
| Totals, All Ages..... | 36,411 | 31,311 | 56,529 | 47,988 | 63,852 | 50,787 | 74,883 | 53,593 | 76,576 | 55,385 |

For footnotes, see end of table, p. 210.

13.—Distribution of Deaths by Age and Sex 1921, 1931, 1941, 1955 and 1956—concluded

| Age Group | 1921 ¹ | | 1931 ² | | 1941 ² | | 1955 | | 1956 | |
|----------------------------|-------------------|--------|-------------------|--------|-------------------|--------|-------|--------|-------|--------|
| | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female |
| PERCENTAGES | | | | | | | | | | |
| Under 5 years..... | 29.8 | 26.5 | 25.7 | 23.4 | 16.7 | 15.8 | 12.4 | 12.9 | 12.3 | 13.3 |
| 5 — 9 "..... | 3.2 | 3.1 | 2.2 | 2.0 | 1.4 | 1.3 | 0.9 | 0.8 | 0.9 | 0.8 |
| 10 — 14 "..... | 1.9 | 2.0 | 1.5 | 1.7 | 1.2 | 1.1 | 0.6 | 0.5 | 0.6 | 0.5 |
| 15 — 19 "..... | 2.4 | 2.4 | 2.3 | 2.4 | 1.8 | 1.6 | 1.0 | 0.6 | 1.0 | 0.5 |
| 20 — 24 "..... | 2.6 | 3.0 | 2.7 | 3.0 | 2.1 | 2.0 | 1.3 | 0.7 | 1.3 | 0.6 |
| 25 — 29 "..... | 2.9 | 3.3 | 2.5 | 2.9 | 2.1 | 2.3 | 1.3 | 0.9 | 1.3 | 0.9 |
| 30 — 34 "..... | 2.7 | 3.4 | 2.3 | 3.0 | 1.9 | 2.3 | 1.4 | 1.3 | 1.4 | 1.1 |
| 35 — 39 "..... | 3.5 | 3.9 | 2.7 | 3.3 | 2.3 | 2.4 | 1.6 | 1.6 | 1.7 | 1.5 |
| 40 — 44 "..... | 3.4 | 3.4 | 3.3 | 3.1 | 2.7 | 2.9 | 2.4 | 2.1 | 2.3 | 2.1 |
| 45 — 49 "..... | 3.7 | 3.4 | 4.1 | 3.6 | 3.8 | 3.6 | 3.4 | 2.8 | 3.5 | 2.8 |
| 50 — 54 "..... | 4.1 | 4.1 | 5.0 | 4.2 | 5.3 | 4.4 | 4.9 | 3.6 | 4.8 | 3.6 |
| 55 — 59 "..... | 4.7 | 4.3 | 5.4 | 4.7 | 6.9 | 5.6 | 6.4 | 5.1 | 6.5 | 4.9 |
| 60 — 64 "..... | 5.8 | 5.3 | 6.3 | 5.9 | 8.3 | 6.9 | 8.5 | 6.8 | 8.3 | 6.9 |
| 65 — 69 "..... | 6.2 | 6.3 | 7.5 | 7.0 | 9.5 | 8.7 | 11.3 | 9.4 | 11.1 | 9.1 |
| 70 — 74 "..... | 7.0 | 7.0 | 8.6 | 8.5 | 10.2 | 9.8 | 13.0 | 12.3 | 13.1 | 12.3 |
| 75 — 79 "..... | 6.5 | 6.8 | 7.7 | 8.4 | 10.1 | 10.7 | 12.5 | 13.5 | 12.3 | 13.7 |
| 80 — 84 "..... | 5.0 | 5.7 | 5.7 | 6.7 | 7.9 | 9.7 | 9.5 | 11.9 | 9.6 | 12.3 |
| 85 years or over..... | 4.5 | 6.1 | 4.5 | 6.2 | 6.0 | 8.9 | 7.9 | 13.1 | 8.1 | 13.1 |
| Totals, All Ages..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| RATES PER 1,000 POPULATION | | | | | | | | | | |
| Under 5 years..... | 28.9 | 22.7 | 26.8 | 21.2 | 20.0 | 15.5 | 9.4 | 7.3 | 9.3 | 7.6 |
| 5 — 9 "..... | 3.1 | 2.7 | 2.2 | 1.7 | 1.7 | 1.3 | 0.8 | 0.5 | 0.8 | 0.5 |
| 10 — 14 "..... | 2.1 | 1.9 | 1.5 | 1.5 | 1.4 | 1.0 | 0.7 | 0.4 | 0.6 | 0.4 |
| 15 — 19 "..... | 3.1 | 2.7 | 2.5 | 2.2 | 2.0 | 1.5 | 1.3 | 0.6 | 1.2 | 0.5 |
| 20 — 24 "..... | 3.7 | 3.7 | 3.2 | 3.2 | 2.6 | 2.0 | 1.7 | 0.6 | 1.7 | 0.6 |
| 25 — 29 "..... | 4.0 | 4.1 | 3.4 | 3.8 | 2.7 | 2.5 | 1.6 | 0.8 | 1.6 | 0.8 |
| 30 — 34 "..... | 3.8 | 4.5 | 3.5 | 4.2 | 2.8 | 2.3 | 1.8 | 1.1 | 1.8 | 1.0 |
| 35 — 39 "..... | 4.7 | 5.5 | 4.2 | 4.8 | 3.8 | 3.4 | 2.2 | 1.5 | 2.3 | 1.5 |
| 40 — 44 "..... | 5.6 | 5.9 | 5.4 | 5.0 | 5.0 | 4.5 | 3.5 | 2.3 | 3.4 | 2.4 |
| 45 — 49 "..... | 7.3 | 7.1 | 7.2 | 6.6 | 7.3 | 6.0 | 5.7 | 3.7 | 5.8 | 3.7 |
| 50 — 54 "..... | 9.8 | 10.2 | 10.7 | 9.0 | 10.6 | 8.1 | 9.8 | 5.6 | 9.6 | 5.7 |
| 55 — 59 "..... | 15.2 | 13.5 | 15.4 | 13.4 | 16.0 | 12.3 | 15.1 | 9.0 | 15.5 | 8.8 |
| 60 — 64 "..... | 21.9 | 19.7 | 22.9 | 20.7 | 24.2 | 18.5 | 23.9 | 14.2 | 24.0 | 14.8 |
| 65 — 69 "..... | 33.4 | 33.2 | 35.2 | 30.3 | 37.3 | 30.4 | 35.9 | 22.6 | 35.7 | 22.3 |
| 70 — 74 "..... | 56.9 | 52.8 | 55.0 | 49.1 | 58.5 | 47.0 | 53.2 | 37.2 | 53.4 | 37.0 |
| 75 — 79 "..... | 89.4 | 80.9 | 87.4 | 82.9 | 95.7 | 79.7 | 84.8 | 65.4 | 82.8 | 66.6 |
| 80 — 84 "..... | 133.8 | 122.4 | 134.1 | 127.1 | 147.6 | 131.2 | 132.4 | 107.0 | 132.6 | 110.5 |
| 85 years or over..... | 228.2 | 224.9 | 228.1 | 212.6 | 241.9 | 229.3 | 219.9 | 203.9 | 221.9 | 198.3 |
| Totals, All Ages..... | 10.9 | 10.2 | 10.5 | 9.6 | 10.8 | 9.1 | 9.4 | 6.9 | 9.4 | 7.0 |
| Average age at death..... | 39.0 | 41.1 | 43.1 | 44.8 | 51.5 | 53.4 | 57.9 | 60.5 | 58.0 | 60.6 |

¹ Excludes Quebec and the Yukon and Northwest Territories.² Excludes the Yukon and Northwest Territories.

Deaths in Urban Centres.—For convenient reference Table 2, pp. 199-200 shows the number of deaths and death rates in 1956 for urban centres of 10,000 population or over. Without a knowledge of the age composition of each centre it is difficult to compare rates for various centres. The migration of young people from rural areas to some urban centres and of older people to other centres creates a favourable situation for a low or high rate as the case may be. Despite differences in the age factor, some urban areas have very low death rates compared with other centres of the same size and with other areas in the same province.

Causes of Death.—Table 14 shows the deaths in Canada grouped according to the International Abbreviated List of 50 Causes. About 80 p.c. of the deaths are caused by diseases of the heart and arteries, cancer, accidents, diseases of early infancy, the respiratory diseases—tuberculosis, pneumonia and influenza—and nephritis.

The rise in the average age at death has already been noted (p. 210). Causes of death that mainly affect children and young adults have declined. Diphtheria for example has been almost wiped out and tuberculosis has been greatly reduced. On the other hand the aging of the population increases the proportion of deaths from certain causes that affect older people. Thus cancer and diseases of the cardio-vascular-renal systems now account for a substantially larger proportion of all deaths than formerly.

These trends indicate the remarkable success that has attended the attack by health authorities on the infective and contagious diseases which in the past have constituted such a great hazard in the early and young adult years of life. They have similarly served to emphasize the emergence of the chronic and degenerative conditions of later life as the targets towards which the public health programs of the future will be directed. In effect, Canada has shared the experience of most western nations in exchanging a high mortality in younger life for high morbidity in older age groups.

The Chart on p. 213 shows death rates for the major cause groups from 1931-56.

14.—Deaths and Rates per 100,000 Population according to the International Abbreviated List of 50 Causes 1954-56

| International List No. | | Cause of Death | Numbers of Deaths | | | Rates per 100,000 Population | | |
|------------------------|--|---|-------------------|--------|--------|------------------------------|-------|-------|
| Abbreviated List | Detailed List | | 1954 ¹ | 1955 | 1956 | 1954 ¹ | 1955 | 1956 |
| B 1 | 001-008 | Tuberculosis of respiratory system.. | 1,299 | 1,223 | 1,079 | 8.6 | 7.8 | 6.7 |
| B 2 | 010-019 | Tuberculosis, other forms..... | 263 | 180 | 177 | 1.7 | 1.1 | 1.1 |
| B 3 | 020-029 | Syphilis and its sequelæ..... | 179 | 187 | 209 | 1.2 | 1.2 | 1.3 |
| B 4 | 040 | Typhoid fever..... | 7 | 10 | 9 | 1 | 0.1 | 0.1 |
| B 5 | 043 | Cholera..... | — | — | — | — | — | — |
| B 6 | 045-048 | Dysentery, all forms..... | 27 | 20 | 29 | 0.2 | 0.1 | 0.2 |
| B 7 | 050, 051 | Scarlet fever and streptococcal sore throat..... | 31 | 26 | 24 | 0.2 | 0.2 | 0.1 |
| B 8 | 055 | Diphtheria..... | 18 | 15 | 8 | 0.1 | 0.1 | 2 |
| B 9 | 056 | Whooping cough..... | 96 | 137 | 118 | 0.6 | 0.9 | 0.7 |
| B10 | 057 | Meningococcal infections..... | 102 | 80 | 84 | 0.7 | 0.5 | 0.5 |
| B11 | 058 | Plague..... | — | — | — | — | — | — |
| B12 | 080 | Acute poliomyelitis..... | 157 | 36 | 51 | 1.0 | 0.2 | 0.3 |
| B13 | 084 | Smallpox..... | — | — | — | — | — | — |
| B14 | 085 | Measles..... | 118 | 179 | 177 | 0.8 | 1.1 | 1.1 |
| B15 | 100-108 | Typhus and other rickettsial diseases..... | — | 1 | 1 | — | 2 | 2 |
| B16 | 110-117 | Malaria..... | — | — | — | — | — | — |
| B17 | 030-039, 041, 042, 044, 049, 052-054, 059-074, 081-083, 086-096, 120-138 | All other diseases classified as infective and parasitic..... | 393 | 386 | 386 | 2.6 | 2.5 | 2.4 |
| B18 | 140-205 | Cancer (all malignant neoplasms) ² .. | 19,694 | 20,309 | 20,868 | 129.8 | 129.4 | 129.8 |
| | | Cancer ¹ | 18,719 | 19,274 | 19,818 | 123.3 | 122.8 | 123.2 |
| | (201) | Hodgkin's disease..... | 208 | 195 | 215 | 1.4 | 1.2 | 1.3 |
| | (204) | Leukæmia and aleukæmia..... | 767 | 840 | 835 | 5.1 | 5.4 | 5.2 |
| B19 | 210-239 | Benign and unspecified neoplasms.. | 366 | 362 | 356 | 2.4 | 2.3 | 2.2 |
| B20 | 260 | Diabetes mellitus..... | 1,607 | 1,716 | 1,820 | 10.6 | 10.9 | 11.3 |
| B21 | 290-293 | Anæmias..... | 323 | 334 | 355 | 2.1 | 2.1 | 2.2 |
| B22 | 330-334 | Vascular lesions affecting central nervous system..... | 13,732 | 14,148 | 14,447 | 90.5 | 90.1 | 89.8 |

For footnotes, see end of table, p. 212.

14.—Deaths and Rates per 100,000 Population according to the International Abbreviated List of 50 Causes 1954-56—concluded

| International List No. | | Cause of Death | Numbers of Deaths | | | Rates per 100,000 Population | | |
|--------------------------------|-------------------------|---|-------------------|----------------|----------------|------------------------------|--------------|--------------|
| Abbreviated List | Detailed List | | 1954 ¹ | 1955 | 1956 | 1954 ¹ | 1955 | 1956 |
| B23 | 340 | Non-meningococcal meningitis..... | 273 | 259 | 242 | 1.8 | 1.6 | 1.5 |
| B24 | 400-402 | Rheumatic fever..... | 202 | 151 | 110 | 1.3 | 1.0 | 0.7 |
| B25 | 410-416 | Chronic rheumatic heart disease.... | 1,584 | 1,455 | 1,448 | 10.4 | 9.3 | 9.0 |
| B26 | 420-422 | Arteriosclerotic and degenerative heart disease..... | 33,810 | 35,501 | 36,576 | 222.9 | 226.1 | 227.4 |
| B27 | 430-434 | Other diseases of heart..... | 1,860 | 1,924 | 1,913 | 12.3 | 12.3 | 11.9 |
| B28 | 440-443 | Hypertension with heart disease..... | 4,043 | 4,055 | 4,038 | 26.7 | 25.8 | 25.1 |
| B29 | 444-447 | Hypertension without mention of heart..... | 972 | 1,037 | 959 | 6.4 | 6.6 | 6.0 |
| B30 | 480-483 | Influenza..... | 518 | 808 | 612 | 3.4 | 5.1 | 3.8 |
| B31 | 490-493 | Pneumonia..... | 4,391 | 4,785 | 5,158 | 28.9 | 30.5 | 32.1 |
| B32 | 500-502 | Bronchitis..... | 551 | 545 | 722 | 3.6 | 3.5 | 4.5 |
| B33 | 540, 541 | Ulcer of stomach and duodenum.... | 749 | 727 | 779 | 4.9 | 4.6 | 4.8 |
| B34 | 550-553 | Appendicitis..... | 211 | 213 | 189 | 1.4 | 1.4 | 1.2 |
| B35 | 560, 561, 570 | Intestinal obstruction and hernia.... | 804 | 823 | 837 | 5.3 | 5.2 | 5.2 |
| B36 | 543, 571, 572 | Gastritis, duodenitis, enteritis and colitis except diarrhoea of the newborn..... | 982 | 964 | 910 | 6.5 | 6.1 | 5.7 |
| B37 | 581 | Cirrhosis of liver..... | 742 | 757 | 838 | 4.9 | 4.8 | 5.2 |
| B38 | 590-594 | Nephritis and nephrosis..... | 2,333 | 2,282 | 2,143 | 15.4 | 14.5 | 13.3 |
| B39 | 610 | Hyperplasia of prostate..... | 635 | 651 | 632 | 4.2 | 4.1 | 3.9 |
| B40 | 640-652, 660, 670-689 | Complications of pregnancy, childbirth and the puerperium..... | 312 | 337 | 278 | 2.1 | 2.1 | 1.7 |
| B41 | 750-759 | Congenital malformations..... | 2,580 | 2,619 | 2,838 | 17.0 | 16.7 | 17.6 |
| B42 | 760-762 | Birth injuries, postnatal asphyxia and atelectasis..... | 2,893 | 3,027 | 3,192 | 19.0 | 19.3 | 19.8 |
| B43 | 763-768 | Infections of the newborn..... | 626 | 667 | 713 | 4.1 | 4.2 | 4.4 |
| B44 | 769-776 | Other diseases peculiar to early infancy and immaturity (unqualified)..... | 3,601 | 3,435 | 3,649 | 23.7 | 21.9 | 22.7 |
| B45 | 780-795 | Senility without mention of psychosis, ill-defined and unknown causes..... | 1,880 | 1,894 | 1,813 | 12.4 | 12.1 | 11.3 |
| B46 | Residual | All other diseases..... | 9,899 | 10,086 | 10,489 | 65.3 | 64.3 | 65.2 |
| BE47 | E810-E835 | Motor vehicle accidents..... | 2,867 | 3,042 | 3,559 | 18.9 | 19.4 | 22.1 |
| BE48 | E800-E802 E840-E962 | All other accidents..... | 5,513 | 5,808 | 5,712 | 36.3 | 37.0 | 35.5 |
| BE49 | E963, E970- E979 | Suicide and self-inflicted injury..... | 1,102 | 1,106 | 1,226 | 7.3 | 7.0 | 7.6 |
| BE50 | E964, E965 E980-E999 | Homicide and operations of war.... | 175 | 169 | 188 | 1.2 | 1.1 | 1.2 |
| Totals, All Causes..... | | | 124,520 | 128,476 | 131,961 | 820.7 | 818.2 | 820.2 |

¹ Excludes the Yukon and Northwest Territories.
Hodgkin's disease, leukaemia and aleukæmia.

² Less than 0.1 per 100,000.

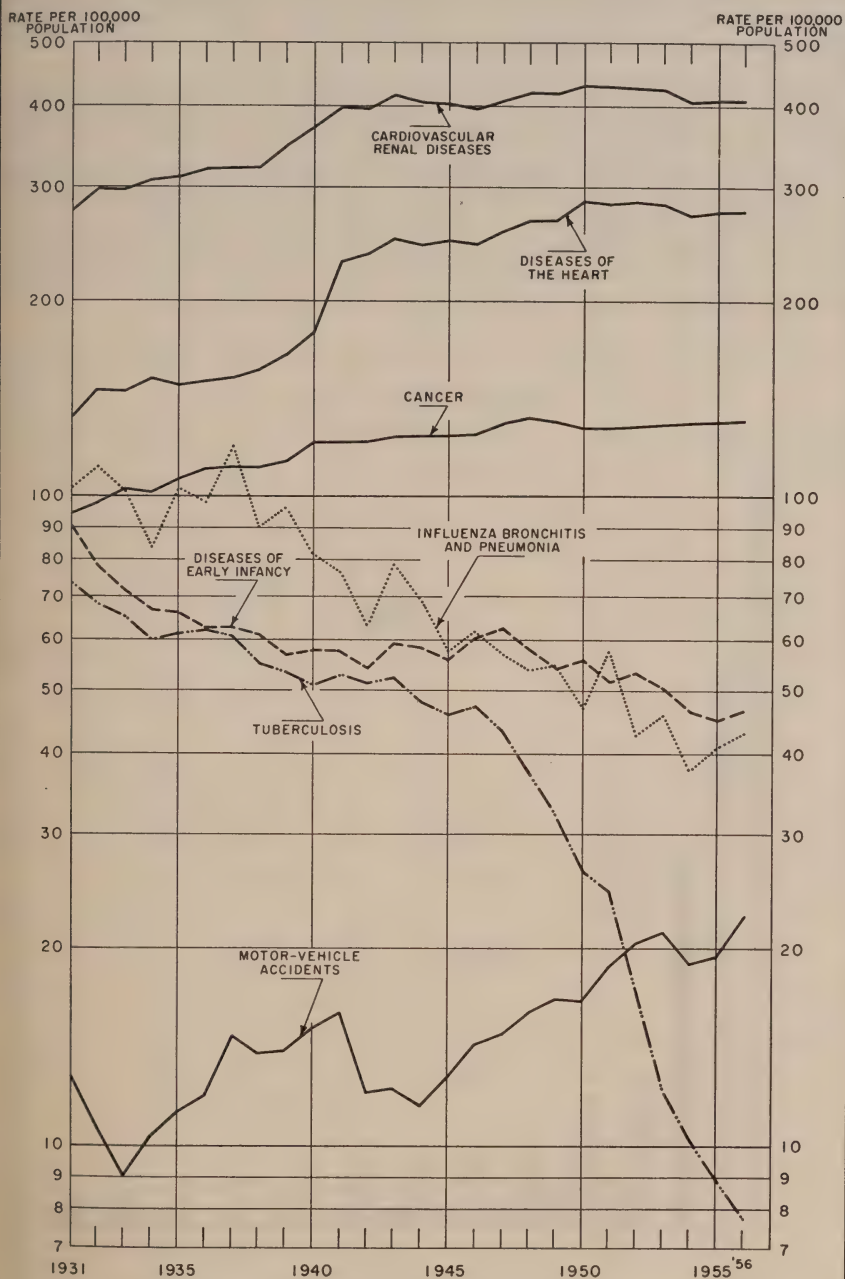
³ Includes
⁴ Excludes Hodgkin's disease, leukaemia and aleukæmia.

Subsection 2.—Infant Mortality

Table 1, pp. 196-198, shows the striking improvement that has taken place in the rate of infant mortality during the past 35 years. Although 42,000 of the 1,330,000 children born in the years 1954-56 died, 81,700 others lived to their first birthday who *would have* died at the rate prevailing in the period 1926-30.

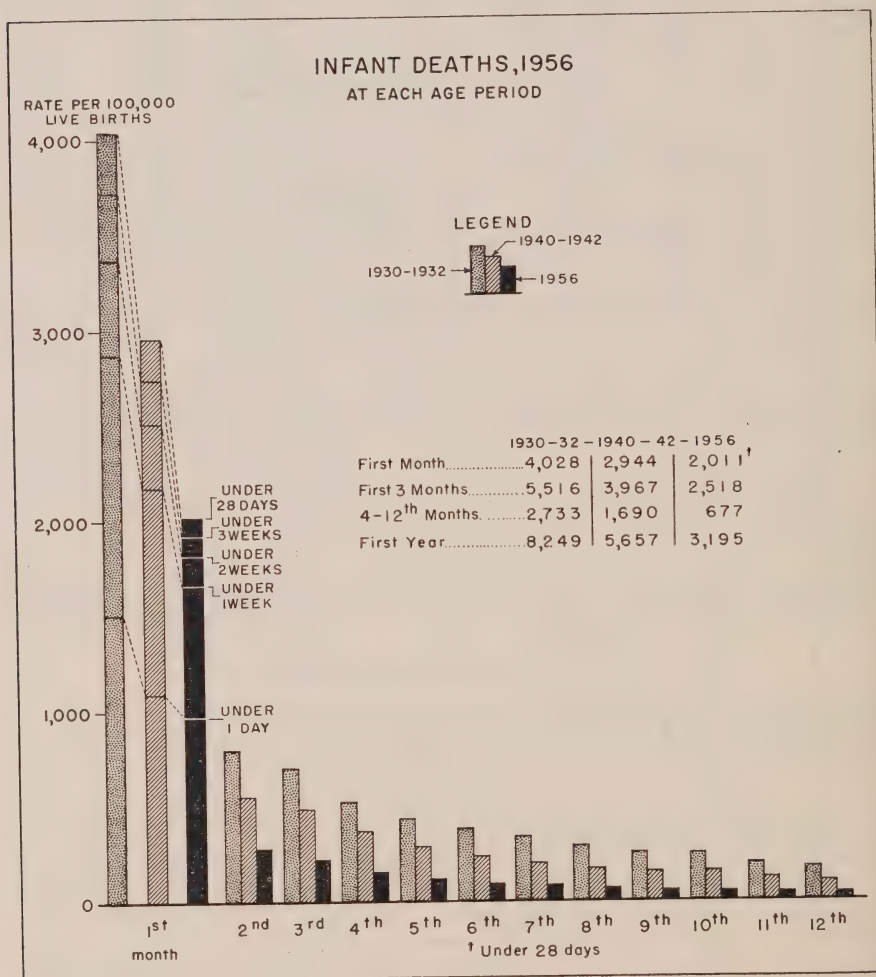
As illustrated in Table 15, mortality among male infants is 25 to 30 p.c. higher than that among females for Canada as a whole, with wider variations for the individual provinces. As pointed out earlier there were in the 1941-54 period between 1,052 and 1,067 males born to every 1,000 females born, but because male infant mortality is higher the excess of males is reduced drastically by the end of the first year. For example, in 1954-56 there were 683,247 male children born compared with 646,627 female children, an excess

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of 36,620 or 5.6 p.c.; during this period 24,099 male children died during their first year compared with 18,118 female children, that is, 5,981 more. The excess of males at one year of age was thus reduced to 30,639 or 4.9 p.c.

As indicated in Tables 1 and 15 infant mortality rates vary considerably from province to province and from one locality to another. One of the principal causes of these variations appears to be the different proportions of births that take place in hospital or under proper medical care (*see also* p. 202). Along with increased hospitalization has come better and more widespread prenatal and postnatal care. Many other factors have also been important, particularly the supervision of water supplies, improved sanitation, the pasteurization of milk, the use of antibiotics, more and better pædiatric services, improved obstetrical and hospital nursing room services, improved home environment because of generally improved living standards and, in recent years, the lower age of mothers.



15.—Distribution of Infant Deaths by Sex and Province 1921-56

| Province and Year | Males | Fe- males | Rate per 1,000 Male Live Births | Rate per 1,000 Female Live Births | Province and Year | Males | Fe- males | Rate per 1,000 Male Live Births | Rate per 1,000 Female Live Births | |
|------------------------|-------|--------------|--|--|------------------------------|--------|--------------|--|--|----|
| | No. | No. | | | | No. | No. | | | |
| Newfoundland.....1951 | 361 | 276 | 60 | 48 | Manitoba—concl. 1951 | 369 | 289 | 36 | 30 | |
| 1955 | 357 | 267 | 48 | 37 | 1955 | 390 | 306 | 34 | 28 | |
| 1956 | 335 | 295 | 45 | 41 | 1956 | 365 | 311 | 33 | 29 | |
| P. E. Island.....1921 | 95 | 85 | 89 | 78 | Saskatchewan.....1921 | 1,048 | 766 | 90 | 70 | |
| 1931 | 78 | 50 | 78 | 57 | 1931 | 851 | 612 | 78 | 59 | |
| 1941 | 102 | 61 | 95 | 63 | 1941 | 531 | 415 | 56 | 46 | |
| 1951 | 60 | 30 | 44 | 23 | 1951 | 353 | 323 | 32 | 30 | |
| 1955 | 50 | 46 | 34 | 35 | 1955 | 426 | 319 | 34 | 26 | |
| 1956 | 60 | 45 | 46 | 33 | 1956 | 391 | 289 | 32 | 25 | |
| Nova Scotia.....1921 | 738 | 573 | 110 | 91 | Alberta.....1921 | 808 | 583 | 95 | 72 | |
| 1931 | 510 | 404 | 86 | 71 | 1931 | 675 | 522 | 76 | 63 | |
| 1941 | 545 | 363 | 77 | 53 | 1941 | 506 | 373 | 57 | 44 | |
| 1951 | 344 | 250 | 39 | 30 | 1951 | 531 | 358 | 39 | 27 | |
| 1955 | 340 | 226 | 35 | 25 | 1955 | 508 | 380 | 29 | 23 | |
| 1956 | 325 | 229 | 33 | 25 | 1956 | 508 | 352 | 28 | 21 | |
| New Brunswick.....1921 | 740 | 559 | 125 | 101 | British Columbia..1921 | 343 | 259 | 62 | 51 | |
| 1931 | 565 | 379 | 102 | 72 | 1931 | 292 | 222 | 55 | 44 | |
| 1941 | 515 | 421 | 83 | 69 | 1941 | 316 | 236 | 41 | 32 | |
| 1951 | 472 | 363 | 58 | 46 | 1951 | 487 | 352 | 34 | 26 | |
| 1955 | 368 | 254 | 43 | 31 | 1955 | 509 | 353 | 29 | 21 | |
| 1956 | 358 | 298 | 42 | 37 | 1956 | 509 | 435 | 28 | 24 | |
| Quebec.....1931 | 5,417 | 4,026 | 126 | 99 | Yukon.....1951 | 10 | 9 | 58 | 53 | |
| 1941 | 3,916 | 2,854 | 85 | 66 | 1955 | 17 | 10 | 64 | 39 | |
| 1951 | 3,335 | 2,486 | 54 | 42 | 1956 | 11 | 12 | 42 | 55 | |
| 1955 | 2,896 | 2,150 | 42 | 33 | Northwest Territories | 1951 | 43 | 27 | 136 | 81 |
| 1956 | 3,130 | 2,414 | 45 | 37 | 1955 | 45 | 45 | 123 | 123 | |
| Ontario.....1921 | 3,918 | 2,845 | 102 | 79 | 1956 | 68 | 49 | 166 | 131 | |
| 1931 | 2,744 | 2,089 | 77 | 62 | | | | | | |
| 1941 | 1,910 | 1,384 | 51 | 40 | Canada.....1921 ¹ | 8,558 | 6,335 | 98 | 77 | |
| 1951 | 2,010 | 1,535 | 34 | 28 | 1931 ² | 11,667 | 8,693 | 94 | 74 | |
| 1955 | 2,061 | 1,561 | 29 | 23 | 1941 ² | 8,788 | 6,448 | 67 | 52 | |
| 1956 | 2,048 | 1,562 | 28 | 22 | 1951 | 8,375 | 6,298 | 43 | 34 | |
| Manitoba.....1921 | 868 | 665 | 92 | 74 | 1955 | 7,967 | 5,917 | 35 | 27 | |
| 1931 | 535 | 389 | 74 | 55 | 1956 | 8,108 | 6,291 | 35 | 29 | |
| 1941 | 447 | 341 | 59 | 47 | | | | | | |

¹ Excludes Quebec and the Yukon and Northwest Territories.

² Excludes the Yukon and Northwest Territories.

Infant Mortality in Urban Centres.—Because of the relatively small numbers of infant deaths in individual cities and towns, the rates for these centres usually vary widely from year to year. As is evident from Table 2, pp. 199-200, many cities and towns have maintained consistently low rates as compared with the national rate or the rate for the province in which they are situated.

Causes of Infant Deaths.—Of the 14,399 infant deaths in 1956 a congenital malformation was the underlying cause of death in 2,310 cases, immaturity in 2,224, pneumonia among infants over four weeks of age 1,600, postnatal asphyxia and atelectasis 1,642, and injury at birth 1,548; these causes together made up almost 65 p.c. of the total. The Chart opposite shows the relative importance of the major causes of infant deaths from 1931-56, and the Chart on p. 214 shows the comparative numbers of children dying at each month of age during the first year of life.

16.—Infant Mortality and Rates per 100,000 Live Births by Cause 1951-56

| Inter-national List No. | Cause of Death | Numbers of Deaths | | | Rates per 100,000 Live Births | | |
|-------------------------|---|-------------------|-------------------|---------------|-------------------------------|-------------------|--------------|
| | | 1954 ¹ | 1955 ¹ | 1956 | 1954 ¹ | 1955 ¹ | 1956 |
| 001-019 | Tuberculosis..... | 42 | 21 | 18 | 10 | 5 | 4 |
| 020-029 | Syphilis..... | 6 | 5 | 6 | 1 | 1 | 1 |
| 045-048 | Dysentery..... | 12 | 11 | 22 | 3 | 2 | 5 |
| 050 | Scarlet fever..... | 2 | 1 | 1 | 2 | 2 | 2 |
| 052 | Erysipelas..... | 1 | 1 | 1 | 2 | 2 | 2 |
| 055 | Diphtheria..... | 1 | 1 | — | 2 | 2 | — |
| 056 | Whooping cough..... | 75 | 107 | 93 | 17 | 24 | 21 |
| 057 | Meningococcal infections..... | 50 | 42 | 38 | 11 | 10 | 8 |
| 085 | Measles..... | 56 | 66 | 72 | 13 | 15 | 16 |
| 140-239 | Neoplasms..... | 35 | 40 | 41 | 8 | 9 | 9 |
| 273 | Diseases of thymus gland..... | 37 | 38 | 33 | 9 | 9 | 7 |
| 325 | Mental deficiency..... | 24 | 17 | 44 | 6 | 4 | 10 |
| 340 | Meningitis (non-meningococcal)..... | 138 | 142 | 140 | 32 | 32 | 31 |
| 391, 392 | Otitis media..... | 200 | 151 | 122 | 46 | 34 | 27 |
| 470-475 | Acute upper respiratory infections..... | 77 | 66 | 67 | 18 | 15 | 15 |
| 480-483 | Influenza..... | 172 | 210 | 168 | 40 | 48 | 37 |
| 490-493 | Pneumonia (4 weeks and over)..... | 1,577 | 1,567 | 1,600 | 362 | 355 | 355 |
| 500-502 | Bronchitis..... | 123 | 100 | 152 | 28 | 23 | 34 |
| 543 | Gastritis and duodenitis..... | 5 | 5 | 3 | 1 | 1 | 1 |
| 560-570 | Hernia and intestinal obstruction..... | 86 | 92 | 135 | 20 | 21 | 30 |
| 571 | Gastro-enteritis and colitis..... | 542 | 490 | 484 | 125 | 111 | 107 |
| 572 | Chronic enteritis, and ulcerative colitis..... | 7 | 3 | 4 | 2 | 1 | 1 |
| 750-759 | Congenital malformations..... | 2,137 | 2,165 | 2,310 | 491 | 490 | 512 |
| 760, 761 | Injury at birth..... | 1,386 | 1,426 | 1,548 | 319 | 323 | 343 |
| 762 | Post-natal asphyxia and atelectasis..... | 1,507 | 1,594 | 1,642 | 346 | 361 | 364 |
| 763 | Pneumonia of newborn (under 4 weeks)..... | 438 | 481 | 512 | 101 | 109 | 114 |
| 764 | Diarrhoea of newborn (under 4 weeks)..... | 137 | 134 | 149 | 31 | 30 | 33 |
| 765-768 | Other infections of the newborn..... | 51 | 41 | 52 | 12 | 9 | 12 |
| 769 | Antenatal toxæmia..... | 146 | 170 | 137 | 34 | 38 | 30 |
| 770 | Erythroblastosis..... | 365 | 343 | 334 | 84 | 78 | 74 |
| 771 | Hæmorrhagic disease of newborn..... | 136 | 117 | 109 | 31 | 26 | 24 |
| 772 | Nutritional maladjustment..... | 112 | 107 | 93 | 26 | 24 | 21 |
| 773 | Ill-defined diseases peculiar to early infancy..... | 777 | 703 | 748 | 179 | 159 | 166 |
| 774-776 | Immaturity..... | 2,062 | 1,979 | 2,224 | 474 | 448 | 493 |
| 795 | Ill-defined and unknown causes..... | 192 | 238 | 215 | 44 | 54 | 48 |
| E810-E825 | Motor vehicle traffic accidents..... | 12 | 12 | 19 | 3 | 3 | 4 |
| E900-E904 | Accidental falls..... | 14 | 17 | 15 | 3 | 4 | 3 |
| E916 | Accidents caused by fire..... | 25 | 36 | 27 | 6 | 8 | 6 |
| E921, E922 | Inhalation and ingestion of food or other object..... | 248 | 249 | 237 | 57 | 56 | 53 |
| E924, E925 | Accidental mechanical suffocation..... | 128 | 116 | 156 | 29 | 26 | 35 |
| | Other accidental and violent deaths..... | 56 | 71 | 49 | 13 | 16 | 11 |
| | Other specified causes..... | 644 | 592 | 579 | 148 | 134 | 128 |
| | Totals, All Causes..... | 13,841 | 13,767 | 14,399 | 3,183 | 3,116 | 3,193 |

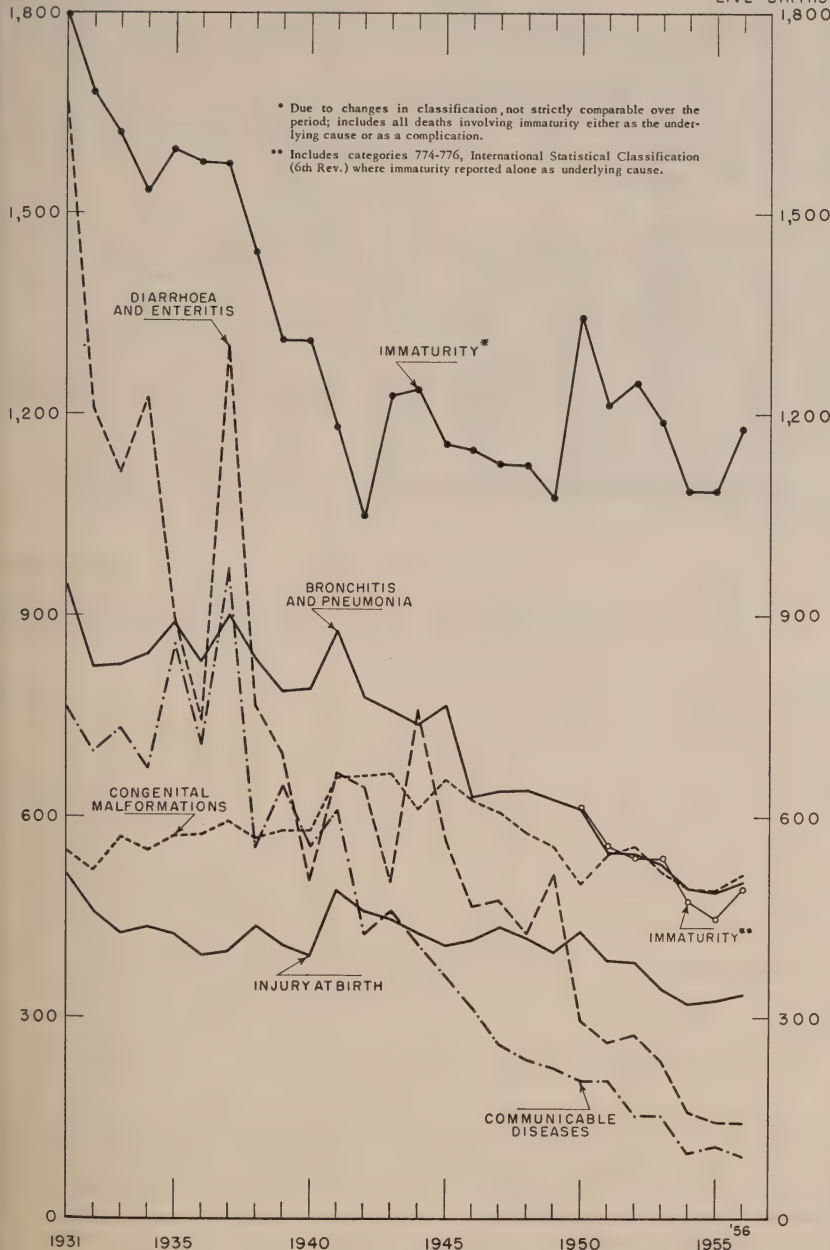
¹ Excludes the Yukon and Northwest Territories.

² Less than one per 100,000 live births.

LEADING CAUSES OF INFANT DEATHS

RATE PER 100,000
LIVE BIRTHS

RATE PER 100,000
LIVE BIRTHS



Subsection 3.—Maternal Mortality

As indicated in Table 1, pp. 196-198, the number of mothers who die in pregnancy and childbirth has been greatly reduced during the past two decades. Although the number of births has been much greater in recent years, the number of maternal deaths has declined steadily since about 1930 (when there were 1,215 deaths and a rate of almost five deaths for every 1,000 live births) to a record low of 278 in 1956. Since 1945 the rate of maternal mortality has dropped below two per 1,000 live births and has been under one per 1,000 live births since 1951. Mortality among unmarried mothers is higher than among married mothers.

Age at Death.—Table 17 shows the distribution of maternal deaths by age groups and average age at death. The latter is about four years higher than the average age of all mothers at the time of childbirth. The rates per 1,000 live births by age groups show that age is a most important factor in maternal mortality. Though all the rates have shown a declining tendency, the inequalities between the age groups remain. The death rate for mothers 30-34 years of age is twice to three times as high as the rate at 20-24 years, and at 40-44 years it is five to ten times as high. The higher rate for the "under 20" age group, compared with the age group 20-24, is caused by the high proportion of illegitimate children born to young mothers in the "under 20" group.

17.—Maternal Mortality and Rates per 1,000 Live Births by Age Group 1954-56

| Age Group | Maternal Deaths | | | | | | Rates per 1,000 Live Births | | |
|------------------------------|-------------------|--------------|-------------------|--------------|-------------------|--------------|--------------------------------|-------------------|-------------------|
| | 1954 ¹ | | 1955 ¹ | | 1956 ² | | 1954 ¹ | 1955 ¹ | 1956 ² |
| | No. | p.c. | No. | p.c. | No. | p.c. | | | |
| Under 20 years..... | 11 | 3.8 | 13 | 4.2 | 12 | 4.7 | 0.38 | 0.44 | 0.38 |
| 20 — 24 " | 37 | 12.8 | 47 | 15.4 | 29 | 11.4 | 0.32 | 0.40 | 0.24 |
| 25 — 29 " | 68 | 23.4 | 62 | 20.3 | 59 | 23.1 | 0.55 | 0.50 | 0.46 |
| 30 — 34 " | 66 | 22.8 | 76 | 24.8 | 59 | 23.1 | 0.74 | 0.85 | 0.65 |
| 35 — 39 " | 69 | 23.8 | 74 | 24.2 | 56 | 22.1 | 1.49 | 1.54 | 1.14 |
| 40 — 44 " | 33 | 11.4 | 29 | 9.5 | 38 | 14.9 | 2.21 | 1.89 | 2.5 |
| 45 — 49 " | 6 | 2.0 | 4 | 1.3 | 2 | 0.8 | 5.09 | 3.54 | 1.73 |
| 50 years or over..... | — | — | 1 | 0.3 | — | — | — | — | — |
| Totals, All Ages..... | 290 | 100.0 | 306 | 100.0 | 255 | 100.0 | 0.69 | 0.72 | 0.58 |
| Average age at death..... | 32.2 | | 31.8 | | 32.3 | | ... | | ... |

¹ Excludes Newfoundland and the Yukon and Northwest Territories.

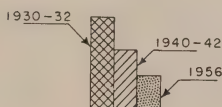
² Excludes Newfoundland.

Causes of Maternal Deaths.—Table 18 shows the number and rate of maternal deaths by causes. Until a decade ago puerperal sepsis and toxæmias of pregnancy were by far the most important causes. Since 1936 the rate for puerperal sepsis has been reduced by almost 95 p.c. largely as a result of the use of sulpha and other antibiotics. Although there has been a reduction of over 70 p.c. since 1936 in the maternal death rate from toxæmias of pregnancy this group still remains a major cause of maternal deaths second only to complications of delivery.

MATERNAL DEATHS, 1956

RATE PER 1,000
LIVE BIRTHS

LEGEND



18.—Maternal Mortality and Rates per 100,000 Live Births by Cause 1954-56

| Inter- national List No. | Cause of Death | Numbers of Deaths | | | Rates per 100,000 Live Births | | |
|-----------------------------------|--|----------------------|-------------------|------|----------------------------------|-------------------|--------------|
| | | 1954 ¹ | 1955 ¹ | 1956 | 1954 ¹ | 1955 ¹ | 1956 |
| 640, 641 | Infections of the genito-urinary tract during pregnancy..... | 1 | — | 1 | ² | — | ² |
| 642 | Toxaemias of pregnancy..... | 77 | 93 | 53 | 18 | 21 | 12 |
| 643 | Placenta praevia noted before delivery..... | 2 | 4 | — | ² | 1 | — |
| 644 | Other haemorrhage of pregnancy..... | 6 | 8 | 4 | 1 | 2 | 1 |
| 645 | Ectopic pregnancy..... | 11 | 11 | 10 | 3 | 2 | 2 |
| 646-649 | Other complications of pregnancy..... | 11 | 23 | 12 | 3 | 5 | 3 |
| 650, 652 | Abortion without mention of sepsis..... | 17 | 13 | 11 | 4 | 3 | 2 |
| 651 | Abortion with sepsis..... | 24 | 15 | 14 | 6 | 3 | 3 |
| 660 | Delivery without complication..... | 8 | 4 | 7 | 2 | 1 | 2 |
| 670 | Delivery complicated by placenta praevia or antepartum haemorrhage..... | 24 | 20 | 26 | 6 | 5 | 6 |
| 671 | Delivery complicated by retained placenta..... | 8 | 8 | 8 | 2 | 2 | 2 |
| 672 | Delivery complicated by other postpartum haemorrhage..... | 32 | 32 | 29 | 7 | 7 | 6 |
| 673, 674 | Delivery complicated by abnormality of bony pelvis or malposition of foetus..... | 11 | 7 | 9 | 3 | 2 | 2 |
| 675 | Delivery complicated by prolonged labour of other origin..... | 6 | 5 | 11 | 1 | 1 | 2 |
| 676, 677 | Delivery with laceration or other trauma..... | 18 | 15 | 21 | 4 | 3 | 5 |
| 678 | Delivery with other complications of childbirth..... | 15 | 20 | 21 | 3 | 5 | 5 |
| 681 | Sepsis of childbirth and the puerperium..... | 8 | 8 | 9 | 2 | 2 | 2 |
| 682-684 | Puerperal phlebitis, thrombosis, pyrexia, pulmonary embolism..... | 21 | 29 | 19 | 5 | 7 | 4 |
| 685, 686 | Puerperal eclampsia and toxæmia..... | 6 | 8 | 5 | 1 | 2 | 1 |
| 687-689 | Other and unspecified complications of the puerperium..... | 6 | 12 | 8 | 1 | 3 | 2 |
| Totals, All Puerperal Causes..... | | 312 | 335 | 278 | 72 | 76 | 62 |

¹ Excludes the Yukon and Northwest Territories.² Less than one per 100,000 live births.

Section 4.—Natural Increase*

As will be observed from Table 1 the rate of natural increase in Canada (excess of births over deaths) in 1926-30 was 13 per 1,000 population. Partly as a result of the depression the birth rate declined more than the death rate and the rate of natural increase fell to 9.7 in 1937. It increased steadily from 12.6 in 1940-42 to 19.3 in 1947, dropped to 17.8 in 1948, then rose to a high of 20.3 in 1954. A decrease to 20.0 in 1955 and 19.8 in 1956 was caused mainly by a drop in the birth rate.

Table 19 shows that the rates of natural increase in the provinces followed generally the rate for Canada as a whole. The high rates in the Prairie Provinces are caused by their relatively younger populations and consequent low death rates. In Quebec the death rate in the period 1926-30 was high but it has since declined steadily. High birth rates have given Newfoundland, New Brunswick and Alberta the highest rates of natural increase in Canada in recent years (excluding the Yukon and Northwest Territories).

The rates of natural increase are higher for females than for males in all provinces because of the higher death rates for males. In the western provinces particularly, the ratio of males to females in the total population is higher than in other parts of Canada and this tends to lower the rate of natural increase. In Canada, a country with a fairly young population and where immigration has been on a large scale, an excess of males is to be expected but the higher rate of natural increase for females may gradually reduce this excess. The trend is towards an eventual excess of females in the total population—as there now is in most European countries—unless immigration again raises the male ratio.

* For international comparisons, see Section 7, pp. 230-231.

19.—Natural Increase and Rates per 1,000 Population by Sex and Province 1921-56

| Province and Year | Excess of Births Over Deaths | Rate per 1,000 Popu- lation | Males | | Females | | |
|---------------------------|--|---|--------|----------------------------|---------|------------------------------|------|
| | | | Number | Rate per 1,000 Males | Number | Rate per 1,000 Females | |
| Newfoundland..... | 1951 | 8,734 | 24.2 | 4,369 | 23.6 | 4,365 | 24.8 |
| | 1952 | 9,788 | 26.2 | 4,942 | 25.7 | 4,846 | 26.7 |
| | 1953 | 10,064 | 26.3 | 4,990 | 25.4 | 5,074 | 27.3 |
| | 1954 | 10,737 | 27.2 | 5,330 | 26.2 | 5,407 | 28.3 |
| | 1955 | 11,551 | 28.4 | 5,701 | 27.3 | 5,850 | 29.7 |
| | 1956 | 11,483 | 27.6 | 5,722 | 26.8 | 5,761 | 28.6 |
| Prince Edward Island..... | 1921 | 947 | 10.7 | 454 | 10.1 | 493 | 11.3 |
| | 1931 | 967 | 10.9 | 517 | 11.4 | 450 | 10.6 |
| | 1941 | 915 | 9.6 | 483 | 9.8 | 432 | 9.4 |
| | 1951 | 1,747 | 17.9 | 872 | 17.4 | 875 | 18.2 |
| | 1952 | 1,787 | 17.8 | 902 | 17.7 | 885 | 18.1 |
| | 1953 | 1,811 | 17.9 | 853 | 16.6 | 958 | 19.4 |
| | 1954 | 1,758 | 17.4 | 874 | 17.0 | 884 | 17.8 |
| | 1955 | 1,883 | 18.8 | 949 | 18.6 | 934 | 19.0 |
| | 1956 | 1,724 | 17.4 | 765 | 15.1 | 959 | 19.7 |
| Nova Scotia..... | 1921 | 6,601 | 12.6 | 3,323 | 12.5 | 3,278 | 12.7 |
| | 1931 | 5,647 | 11.0 | 2,836 | 10.8 | 2,811 | 11.3 |
| | 1941 | 6,989 | 12.1 | 3,335 | 11.3 | 3,654 | 13.0 |
| | 1951 | 11,313 | 17.6 | 5,596 | 17.2 | 5,717 | 18.0 |
| | 1952 | 12,195 | 18.7 | 6,022 | 18.2 | 6,173 | 19.1 |
| | 1953 | 12,468 | 18.8 | 6,146 | 18.3 | 6,322 | 19.4 |
| | 1954 | 13,217 | 19.6 | 6,490 | 18.9 | 6,727 | 20.4 |
| | 1955 | 13,027 | 19.1 | 6,375 | 18.4 | 6,652 | 19.8 |
| | 1956 | 13,368 | 19.2 | 6,719 | 19.0 | 6,649 | 19.5 |
| New Brunswick..... | 1921 | 6,055 | 15.9 | 3,084 | 16.0 | 2,971 | 15.9 |
| | 1931 | 6,157 | 15.1 | 3,099 | 14.9 | 3,058 | 15.3 |
| | 1941 | 7,088 | 15.5 | 3,396 | 14.5 | 3,692 | 16.5 |
| | 1951 | 11,202 | 21.8 | 5,522 | 21.3 | 5,680 | 22.1 |
| | 1952 | 12,044 | 22.9 | 5,768 | 21.8 | 6,276 | 24.0 |
| | 1953 | 11,821 | 22.2 | 5,966 | 22.3 | 5,855 | 22.1 |
| | 1954 | 12,363 | 22.9 | 6,140 | 22.6 | 6,223 | 23.2 |
| | 1955 | 12,174 | 22.3 | 5,898 | 21.4 | 6,276 | 23.1 |
| | 1956 | 11,915 | 21.5 | 6,014 | 21.5 | 5,901 | 21.5 |

19.—Natural Increase and Rates per 1,000 Population by Sex and Province 1921-56—concluded

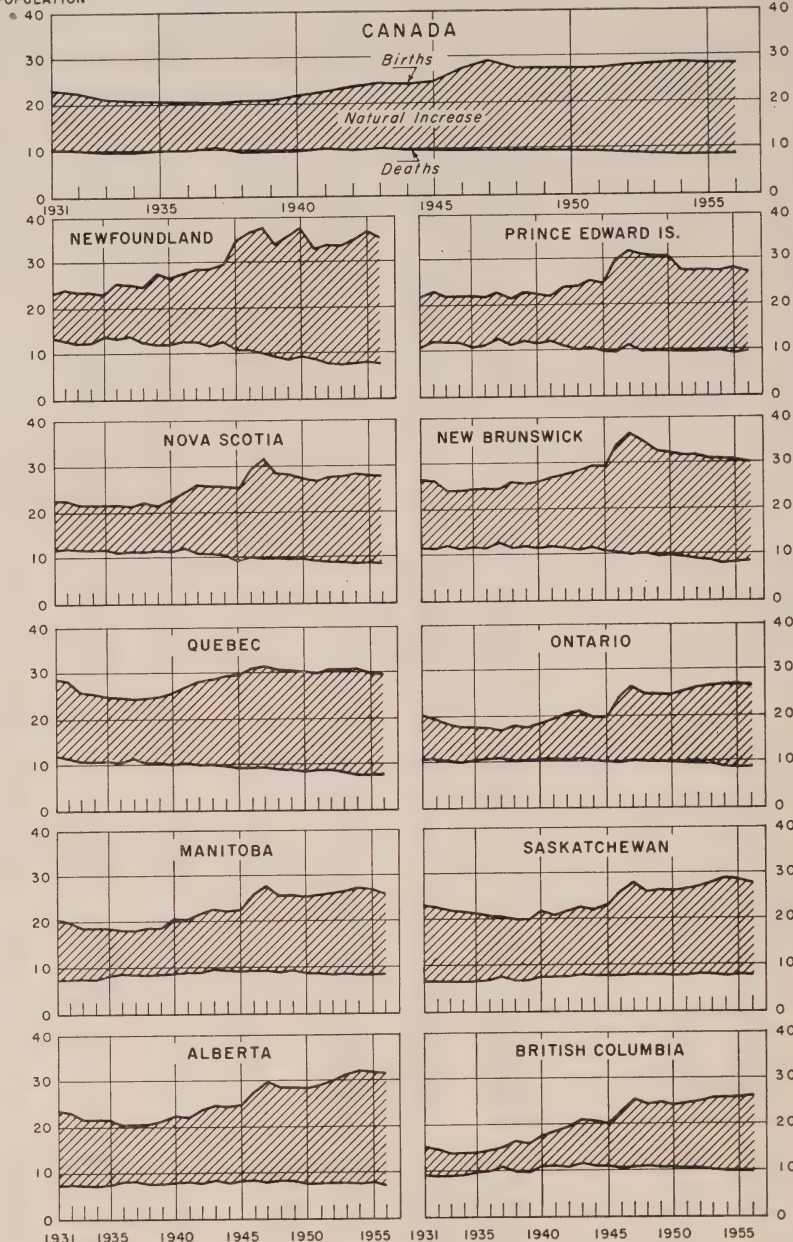
| Province and Year | Excess of Births Over Deaths | Rate per 1,000 Popu- lation | Males | | Females | |
|--------------------------------|--|---|---------|----------------------------|---------|------------------------------|
| | | | Number | Rate per 1,000 Males | Number | Rate per 1,000 Females |
| Quebec.....1921 | 55,316 | 23.4 | 29,431 | 24.9 | 25,885 | 21.9 |
| 1931 | 49,119 | 17.1 | 24,984 | 17.3 | 24,135 | 16.9 |
| 1941 | 54,871 | 16.5 | 27,561 | 16.5 | 27,310 | 16.5 |
| 1951 | 86,030 | 21.2 | 42,961 | 21.2 | 43,069 | 21.2 |
| 1952 | 91,562 | 21.9 | 45,555 | 21.8 | 46,007 | 22.0 |
| 1953 | 94,250 | 22.1 | 46,636 | 21.8 | 47,614 | 22.3 |
| 1954 | 100,009 | 22.8 | 49,865 | 22.7 | 50,144 | 22.9 |
| 1955 | 99,420 | 22.0 | 49,469 | 21.9 | 49,951 | 22.1 |
| 1956 | 100,842 | 21.8 | 50,220 | 21.7 | 50,622 | 21.9 |
| Ontario.....1921 | 39,601 | 13.5 | 20,245 | 13.7 | 19,356 | 13.3 |
| 1931 | 33,504 | 9.8 | 16,472 | 9.4 | 17,032 | 10.1 |
| 1941 | 33,036 | 8.7 | 15,705 | 8.2 | 17,331 | 9.3 |
| 1951 | 70,846 | 15.4 | 34,737 | 15.0 | 36,109 | 15.8 |
| 1952 | 79,489 | 16.6 | 38,914 | 16.1 | 40,575 | 17.1 |
| 1953 | 84,529 | 17.1 | 41,167 | 16.5 | 43,362 | 17.7 |
| 1954 | 91,746 | 17.9 | 44,736 | 17.3 | 47,010 | 18.5 |
| 1955 | 94,120 | 17.9 | 45,842 | 17.3 | 48,278 | 18.5 |
| 1956 | 96,285 | 17.9 | 46,813 | 17.2 | 49,472 | 18.4 |
| Manitoba.....1921 | 13,090 | 21.5 | 6,491 | 20.2 | 6,599 | 22.8 |
| 1931 | 9,057 | 12.9 | 4,239 | 11.5 | 4,818 | 14.5 |
| 1941 | 8,317 | 11.4 | 3,834 | 10.1 | 4,483 | 12.7 |
| 1951 | 13,207 | 17.0 | 6,388 | 16.2 | 6,819 | 17.9 |
| 1952 | 14,225 | 17.8 | 6,713 | 16.5 | 7,512 | 19.1 |
| 1953 | 14,227 | 17.6 | 6,576 | 16.0 | 7,651 | 19.2 |
| 1954 | 15,529 | 18.8 | 7,266 | 17.4 | 8,263 | 20.4 |
| 1955 | 15,544 | 18.5 | 7,388 | 17.3 | 8,156 | 19.7 |
| 1956 | 14,887 | 17.5 | 6,929 | 16.0 | 7,958 | 19.1 |
| Saskatchewan.....1921 | 16,897 | 22.3 | 8,542 | 20.6 | 8,355 | 24.3 |
| 1931 | 15,265 | 16.5 | 7,499 | 15.0 | 7,766 | 18.4 |
| 1941 | 12,006 | 13.4 | 5,651 | 11.8 | 6,355 | 15.2 |
| 1951 | 15,293 | 18.4 | 7,192 | 16.6 | 8,101 | 20.4 |
| 1952 | 15,980 | 18.9 | 7,559 | 17.2 | 8,421 | 20.9 |
| 1953 | 17,016 | 19.7 | 8,012 | 17.9 | 9,004 | 21.8 |
| 1954 | 18,658 | 21.4 | 8,913 | 19.6 | 9,745 | 23.3 |
| 1955 | 18,085 | 20.6 | 8,513 | 18.6 | 9,572 | 22.7 |
| 1956 | 17,393 | 19.7 | 8,251 | 18.0 | 9,142 | 21.7 |
| Alberta.....1921 | 11,621 | 19.7 | 5,635 | 17.4 | 5,986 | 22.6 |
| 1931 | 11,950 | 16.4 | 5,843 | 14.6 | 6,107 | 18.4 |
| 1941 | 10,923 | 13.7 | 5,016 | 11.8 | 5,907 | 16.0 |
| 1951 | 19,836 | 21.2 | 9,331 | 19.0 | 10,505 | 23.5 |
| 1952 | 21,760 | 22.4 | 10,408 | 20.4 | 11,352 | 24.5 |
| 1953 | 23,730 | 23.4 | 11,383 | 21.5 | 12,347 | 25.6 |
| 1954 | 26,073 | 24.7 | 12,616 | 22.9 | 13,457 | 26.7 |
| 1955 | 26,401 | 24.2 | 12,615 | 22.2 | 13,786 | 26.4 |
| 1956 | 27,165 | 24.2 | 13,069 | 22.3 | 14,096 | 26.2 |
| British Columbia.....1921 | 6,445 | 12.3 | 2,949 | 10.1 | 3,496 | 15.1 |
| 1931 | 4,290 | 6.2 | 1,604 | 4.2 | 2,686 | 8.7 |
| 1941 | 6,533 | 8.0 | 2,342 | 5.4 | 4,191 | 10.9 |
| 1951 | 16,439 | 14.1 | 7,107 | 11.9 | 9,332 | 16.4 |
| 1955 | 21,322 | 15.9 | 9,298 | 13.4 | 12,024 | 18.5 |
| 1956 | 22,826 | 16.3 | 10,183 | 14.1 | 12,643 | 18.6 |
| Yukon.....1951 | 257 | 28.6 | 115 | 20.9 | 142 | 39.4 |
| 1955 | 452 | 41.1 | 215 | 34.1 | 237 | 50.4 |
| 1956 | 396 | 33.0 | 200 | 29.0 | 196 | 37.0 |
| Northwest Territories.....1951 | 365 | 22.8 | 164 | 18.2 | 201 | 28.7 |
| 1955 | 482 | 26.8 | 236 | 22.7 | 246 | 32.4 |
| 1956 | 494 | 26.0 | 236 | 21.1 | 258 | 31.9 |
| Canada.....1921 | 156,573 | 17.8 | 80,154 | 17.7 | 76,419 | 18.0 |
| 1931 | 135,956 | 13.1 | 67,093 | 12.5 | 68,863 | 13.8 |
| 1941 | 140,678 | 12.2 | 67,323 | 11.4 | 73,355 | 13.1 |
| 1951 | 255,269 | 18.2 | 124,354 | 17.5 | 130,915 | 18.9 |
| 1955 | 314,461 | 20.0 | 152,499 | 19.2 | 161,962 | 20.9 |
| 1956 | 318,778 | 19.8 | 155,121 | 19.0 | 163,657 | 20.6 |

¹ Excludes Newfoundland and the Yukon and Northwest Territories.

BIRTH, DEATH AND NATURAL INCREASE RATES

RATE PER 1000
POPULATION

RATE PER 1000
POPULATION



Natural Increase in Urban Centres.—The classification of births and deaths by place of residence makes it possible to compile the natural increase in the population of urban centres; the figures are presented in Table 2, pp. 199-200.

Section 5.—Marriages and Divorces*

Subsection 1.—Marriages

Table 20 shows the number of marriages and the marriage rates per 1,000 population in Canada and the provinces, and percentages of brides and bridegrooms, according to place of birth. For the country as a whole in 1956, and as has been the case for several years, 83 p.c. of the grooms were born in Canada—nearly 68 p.c. in the province in which they were married; over 87 p.c. of the brides were born in Canada—nearly 75 p.c. in the province in which they were married. However there are wide variations from this pattern as between provinces; as might be expected, in the older Atlantic Provinces and Quebec there is a greater tendency than in the other provinces to marry native Canadians, both partners often being born in the same province.

* For international comparisons, see Section 7, pp. 230-231.

20.—Marriages and Marriage Rates by Province with Percentage Distribution of Bridegrooms and Brides by Nativity 1921-56

| Province and Year | Total Marriages | Rate per 1,000 Population | Born in Province Where Married | | Born in Other Provinces | | Born Outside Canada | |
|-------------------------------|-----------------|---------------------------|--------------------------------|--------|-------------------------|--------|---------------------|--------|
| | | | Grooms | Brides | Grooms | Brides | Grooms | Brides |
| | No. | | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. |
| Newfoundland.....1951 | 2,517 | 7.0 | 85.2 | 96.7 | 2.4 | 1.9 | 12.4 | 1.4 |
| 1952 | 2,730 | 7.3 | 87.5 | 97.0 | 2.1 | 1.0 | 10.3 | 2.1 |
| 1953 | 2,771 | 7.2 | 86.5 | 96.4 | 2.5 | 1.5 | 11.1 | 2.1 |
| 1954 | 2,952 | 7.5 | 85.1 | 96.0 | 3.3 | 1.6 | 11.5 | 2.4 |
| 1955 | 3,211 | 7.9 | 85.3 | 96.4 | 2.4 | 1.7 | 12.3 | 2.0 |
| 1956 | 3,073 | 7.4 | 84.3 | 96.4 | 3.3 | 1.6 | 12.4 | 2.0 |
| Prince Edward Island.....1921 | 518 | 5.8 | 92.3 | 94.6 | 5.0 | 1.9 | 2.7 | 3.5 |
| 1931 | 490 | 5.6 | 89.4 | 91.8 | 5.1 | 4.1 | 5.5 | 4.1 |
| 1941 | 673 | 7.1 | 78.8 | 86.6 | 15.0 | 9.4 | 6.2 | 4.0 |
| 1951 | 583 | 5.9 | 82.3 | 91.1 | 12.9 | 6.0 | 4.8 | 2.9 |
| 1952 | 613 | 6.1 | 81.4 | 91.5 | 13.9 | 5.4 | 4.7 | 3.1 |
| 1953 | 647 | 6.4 | 80.4 | 91.8 | 15.3 | 6.0 | 4.3 | 2.2 |
| 1954 | 605 | 6.0 | 79.2 | 90.7 | 16.7 | 6.8 | 4.1 | 2.5 |
| 1955 | 667 | 6.7 | 82.6 | 94.5 | 12.9 | 4.3 | 4.5 | 1.2 |
| 1956 | 649 | 6.6 | 80.7 | 92.8 | 14.8 | 4.8 | 4.5 | 2.5 |
| Nova Scotia.....1921 | 3,550 | 6.8 | 76.3 | 81.3 | 6.4 | 4.5 | 17.3 | 14.2 |
| 1931 | 3,394 | 6.6 | 80.3 | 86.7 | 5.4 | 3.6 | 14.3 | 9.7 |
| 1941 | 6,596 | 11.4 | 73.2 | 83.8 | 16.8 | 9.5 | 10.0 | 6.7 |
| 1951 | 5,094 | 7.9 | 78.2 | 86.7 | 15.9 | 9.0 | 6.0 | 4.3 |
| 1952 | 5,390 | 8.3 | 77.2 | 86.3 | 16.5 | 10.0 | 6.3 | 3.7 |
| 1953 | 5,378 | 8.1 | 75.8 | 86.6 | 18.7 | 9.6 | 5.5 | 3.7 |
| 1954 | 5,265 | 7.8 | 73.9 | 86.5 | 20.1 | 9.7 | 5.9 | 3.8 |
| 1955 | 5,288 | 7.7 | 72.6 | 86.0 | 20.9 | 10.2 | 6.5 | 3.7 |
| 1956 | 5,543 | 8.0 | 74.8 | 88.1 | 18.9 | 9.1 | 6.4 | 2.9 |
| New Brunswick.....1921 | 3,173 | 8.4 | 73.4 | 78.0 | 10.1 | 8.4 | 16.5 | 13.6 |
| 1931 | 2,544 | 6.2 | 77.7 | 81.8 | 10.1 | 9.2 | 12.2 | 9.0 |
| 1941 | 4,941 | 10.8 | 78.5 | 84.4 | 13.3 | 9.7 | 8.2 | 5.9 |
| 1951 | 4,386 | 8.5 | 80.0 | 86.9 | 10.1 | 6.7 | 9.8 | 6.4 |
| 1952 | 4,276 | 8.1 | 78.7 | 85.2 | 10.7 | 7.5 | 10.6 | 7.3 |
| 1953 | 4,232 | 7.9 | 74.8 | 85.3 | 12.6 | 7.2 | 12.6 | 7.5 |
| 1954 | 4,278 | 7.9 | 76.8 | 85.4 | 11.8 | 7.2 | 11.4 | 7.4 |
| 1955 | 4,359 | 8.0 | 74.8 | 86.1 | 12.8 | 6.9 | 12.3 | 7.0 |
| 1956 | 4,591 | 8.3 | 75.9 | 86.8 | 12.2 | 6.3 | 11.9 | 6.9 |
| Quebec.....1931 | 16,783 | 5.8 | 79.7 | 83.4 | 4.2 | 3.7 | 16.0 | 13.0 |
| 1941 | 32,782 | 9.8 | 86.1 | 89.3 | 6.7 | 5.9 | 7.2 | 4.8 |
| 1951 | 35,704 | 8.8 | 86.7 | 89.5 | 6.1 | 5.5 | 7.2 | 5.0 |
| 1952 | 35,374 | 8.5 | 84.9 | 87.9 | 6.1 | 5.6 | 9.1 | 6.4 |
| 1953 | 35,968 | 8.4 | 85.6 | 89.0 | 5.6 | 5.0 | 8.8 | 5.9 |
| 1954 | 35,516 | 8.1 | 85.4 | 89.6 | 5.9 | 4.4 | 8.7 | 6.0 |
| 1955 | 35,356 | 7.8 | 85.2 | 88.6 | 5.8 | 5.2 | 9.0 | 6.2 |
| 1956 | 37,290 | 8.1 | 85.6 | 88.8 | 5.7 | 5.0 | 8.7 | 6.2 |

20.—Marriages and Marriage Rates by Province with Percentage Distribution of Bridesmaids and Brides by Nativity 1921-56—concluded

| Province and Year | Total Marriages | Rate per 1,000 Population | Born in Province Where Married | | Born in Other Provinces | | Born Outside Canada | |
|----------------------------|-------------------|---------------------------|--------------------------------|--------|-------------------------|--------|---------------------|--------|
| | | | Grooms | Brides | Grooms | Brides | Grooms | Brides |
| | No. | | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. |
| Ontario..... | 1921 | 24,871 | 8.5 | 63.6 | 66.7 | 5.6 | 4.7 | 30.8 |
| | 1931 | 23,771 | 6.9 | 57.4 | 63.4 | 7.7 | 7.7 | 28.8 |
| | 1941 | 43,270 | 11.4 | 89.2 | 89.0 | 4.2 | 4.5 | 6.5 |
| | 1951 | 45,198 | 9.8 | 65.9 | 72.4 | 14.6 | 12.2 | 19.5 |
| | 1952 | 45,251 | 9.5 | 63.6 | 70.0 | 14.4 | 12.2 | 22.0 |
| | 1953 | 45,954 | 9.3 | 63.0 | 69.5 | 14.1 | 11.9 | 22.9 |
| | 1954 | 45,028 | 8.8 | 61.8 | 68.2 | 14.1 | 12.0 | 24.1 |
| | 1955 | 44,634 | 8.5 | 62.0 | 68.4 | 13.9 | 11.9 | 24.1 |
| | 1956 | 46,282 | 8.6 | 61.9 | 68.1 | 14.0 | 12.2 | 24.2 |
| Manitoba..... | 1921 | 5,310 | 8.7 | 26.4 | 37.2 | 18.1 | 14.1 | 55.5 |
| | 1931 | 4,888 | 7.0 | 41.6 | 55.7 | 10.9 | 9.2 | 47.5 |
| | 1941 | 8,305 | 11.4 | 63.0 | 73.7 | 17.4 | 15.0 | 19.6 |
| | 1951 | 7,366 | 9.5 | 67.9 | 75.1 | 15.4 | 13.3 | 16.8 |
| | 1952 | 7,128 | 8.9 | 64.7 | 74.3 | 18.1 | 13.8 | 17.3 |
| | 1953 | 7,277 | 9.0 | 65.3 | 74.7 | 17.9 | 13.6 | 16.8 |
| | 1954 | 6,837 | 8.3 | 65.3 | 74.7 | 17.6 | 13.5 | 17.1 |
| | 1955 | 6,913 | 8.2 | 64.9 | 74.9 | 18.5 | 13.0 | 16.6 |
| | 1956 | 6,709 | 7.9 | 64.7 | 74.9 | 19.7 | 14.4 | 15.6 |
| Saskatchewan..... | 1921 | 5,101 | 6.7 | 7.1 | 15.6 | 31.4 | 28.1 | 61.5 |
| | 1931 | 5,700 | 6.2 | 27.6 | 48.3 | 22.5 | 16.9 | 49.9 |
| | 1941 | 7,036 | 7.9 | 64.7 | 79.1 | 16.1 | 10.0 | 19.1 |
| | 1951 | 6,805 | 8.2 | 78.3 | 86.4 | 10.7 | 6.4 | 11.1 |
| | 1952 | 6,944 | 8.2 | 77.6 | 87.4 | 12.0 | 5.9 | 10.4 |
| | 1953 | 7,186 | 8.3 | 76.9 | 87.1 | 12.6 | 6.0 | 10.4 |
| | 1954 | 6,953 | 8.0 | 76.9 | 87.3 | 12.8 | 6.0 | 10.3 |
| | 1955 | 6,494 | 7.4 | 77.6 | 87.5 | 12.3 | 6.1 | 10.2 |
| | 1956 | 6,403 | 7.3 | 76.5 | 87.9 | 13.7 | 5.4 | 9.8 |
| Alberta..... | 1921 | 4,661 | 7.9 | 7.0 | 14.2 | 26.2 | 25.1 | 66.8 |
| | 1931 | 5,142 | 7.0 | 22.1 | 38.5 | 19.4 | 17.6 | 58.5 |
| | 1941 | 8,470 | 10.6 | 50.0 | 63.4 | 23.9 | 19.9 | 26.2 |
| | 1951 | 9,305 | 9.9 | 56.0 | 67.4 | 25.7 | 19.6 | 18.3 |
| | 1952 | 9,514 | 9.8 | 53.4 | 65.2 | 26.0 | 19.8 | 20.5 |
| | 1953 | 10,126 | 10.0 | 53.2 | 63.9 | 26.0 | 20.7 | 20.7 |
| | 1954 | 9,960 | 9.4 | 53.3 | 63.6 | 25.4 | 19.6 | 21.4 |
| | 1955 | 9,844 | 9.0 | 51.8 | 63.6 | 26.3 | 20.1 | 21.9 |
| | 1956 | 9,965 | 8.9 | 53.7 | 63.9 | 25.9 | 20.6 | 20.4 |
| British Columbia..... | 1921 | 3,889 | 7.4 | 13.7 | 18.3 | 22.6 | 20.5 | 63.7 |
| | 1931 | 3,879 | 5.6 | 22.2 | 30.6 | 21.1 | 24.7 | 56.7 |
| | 1941 | 9,769 | 11.9 | 35.9 | 43.5 | 35.6 | 37.1 | 28.5 |
| | 1951 | 11,272 | 9.7 | 35.5 | 41.6 | 43.1 | 43.0 | 21.3 |
| | 1952 | 11,081 | 9.2 | 34.9 | 40.0 | 41.6 | 42.4 | 23.4 |
| | 1953 | 11,298 | 9.1 | 34.3 | 41.4 | 41.1 | 40.6 | 24.6 |
| | 1954 | 10,991 | 8.5 | 33.7 | 41.5 | 42.0 | 40.2 | 24.3 |
| | 1955 | 11,011 | 8.2 | 34.7 | 41.5 | 40.6 | 39.8 | 24.7 |
| | 1956 | 11,950 | 8.5 | 33.7 | 41.2 | 40.9 | 38.9 | 25.4 |
| Yukon..... | 1956 | 112 | 9.3 | 17.0 | 25.0 | 58.0 | 58.0 | 25.0 |
| | 1956 | 146 | 7.7 | 65.1 | 73.3 | 19.9 | 19.2 | 15.1 |
| Northwest Territories..... | 1956 | 146 | 7.7 | 65.1 | 73.3 | 19.9 | 19.2 | 15.1 |
| | 1956 | 146 | 7.7 | 65.1 | 73.3 | 19.9 | 19.2 | 15.1 |
| Canada..... | 1921 ¹ | 51,073 | 8.0 | 46.9 | 52.0 | 13.0 | 11.3 | 40.1 |
| | 1931 | 66,591 | 6.4 | 56.7 | 64.9 | 10.0 | 9.2 | 33.3 |
| | 1941 | 121,842 | 10.6 | 76.8 | 81.5 | 11.4 | 10.1 | 11.7 |
| | 1951 ² | 128,230 | 9.2 | 70.5 | 76.5 | 15.1 | 12.8 | 14.5 |
| | 1952 | 128,301 | 8.9 | 68.7 | 75.0 | 15.1 | 12.8 | 16.2 |
| | 1953 | 130,837 | 8.8 | 68.3 | 75.1 | 15.1 | 12.5 | 16.6 |
| | 1954 | 128,385 | 8.4 | 67.8 | 74.9 | 15.2 | 12.2 | 17.0 |
| | 1955 | 127,777 | 8.2 | 67.8 | 74.8 | 15.0 | 12.3 | 17.2 |
| | 1956 ² | 132,713 | 8.3 | 67.8 | 74.7 | 15.2 | 12.4 | 17.0 |
| | 1956 ² | 132,713 | 8.3 | 67.8 | 74.7 | 15.2 | 12.4 | 17.0 |

¹ Excludes the Province of Quebec, Territories for 1956 only.

² Newfoundland included from 1951 and the Yukon and Northwest Territories for 1956 only.

Age and Marital Status of Bridegrooms and Brides.—Almost 92 p.c. of the marriages in 1956 were between persons who had not previously been married; almost 5 p.c. of both brides and bridegrooms had been widowed, and well over 3 p.c. of the marriages were of divorced persons. The average age at marriage of bachelors was just over 26 and that of spinsters just under 23 years and six months. The average age of widowers and widows at the time of remarriage was double that of bachelors and spinsters. Over 90 p.c. of spinsters married in 1956 were under 30 years of age—76 p.c. under 25 years. Over 83 p.c. of bachelors were under 30 years with 55 p.c. of these under 25 years of age.

As has been the case in several other countries in recent years, couples are marrying younger than was the case a generation ago. Since 1940 the average age of men at the time of their first marriage has dropped from 28 years to just past their 26th birthday; that of girls from 24 years and eight months to 23 years and five months. Table 21 shows the age pattern at marriage for all brides and bridegrooms for the years 1955 and 1956.

21.—Brides and Bridegrooms by Age and Marital Status 1955 and 1956

| Year and Age Group | BRIDES | | | | | | | |
|------------------------------|----------------|--------------|--------------|----------------|-------------|------------|------------|--------------|
| | Numbers | | | | Percentages | | | |
| | Spinsters | Widows | Divorced | Total | Spinsters | Widows | Divorced | Total |
| 1955 | | | | | | | | |
| Under 20 years..... | 34,357 | 17 | 22 | 34,396 | 29.4 | 0.3 | 0.5 | 26.9 |
| 20 — 24 "..... | 53,749 | 152 | 478 | 54,379 | 46.0 | 2.4 | 10.2 | 42.6 |
| 25 — 29 "..... | 17,721 | 359 | 1,063 | 19,143 | 15.2 | 5.8 | 22.7 | 15.0 |
| 30 — 34 "..... | 5,907 | 584 | 1,110 | 7,601 | 5.1 | 9.4 | 23.7 | 5.9 |
| 35 — 39 "..... | 2,440 | 670 | 772 | 3,882 | 2.1 | 10.7 | 16.5 | 3.0 |
| 40 — 44 "..... | 1,288 | 763 | 623 | 2,674 | 1.1 | 12.2 | 13.3 | 2.1 |
| 45 — 49 "..... | 687 | 833 | 321 | 1,841 | 0.6 | 13.4 | 6.9 | 1.4 |
| 50 — 54 "..... | 359 | 794 | 167 | 1,320 | 0.3 | 12.7 | 3.6 | 1.0 |
| 55 — 59 "..... | 179 | 717 | 80 | 976 | 0.2 | 11.5 | 1.7 | 0.8 |
| 60 — 64 "..... | 93 | 570 | 33 | 696 | 0.1 | 9.1 | 0.7 | 0.5 |
| 65 years or over..... | 72 | 774 | 12 | 858 | 0.1 | 12.4 | 0.3 | 0.7 |
| Ages not stated..... | 11 | — | — | 11 | -- | — | — | -- |
| Totals, All Ages..... | 116,863 | 6,233 | 4,681 | 127,777 | 91.5 | 4.9 | 3.7 | 100.0 |
| Average ages..... | 23.5 | 48.5 | 34.9 | 25.1 | ... | ... | ... | ... |
| 1956 | | | | | | | | |
| Under 20 years..... | 37,657 | 8 | 21 | 37,686 | 31.0 | 0.1 | 0.4 | 28.4 |
| 20 — 24 "..... | 55,124 | 152 | 462 | 55,738 | 45.3 | 2.4 | 9.7 | 42.0 |
| 25 — 29 "..... | 17,808 | 400 | 1,101 | 19,309 | 14.6 | 6.3 | 23.0 | 14.5 |
| 30 — 34 "..... | 5,863 | 562 | 1,093 | 7,518 | 4.8 | 8.9 | 22.9 | 5.7 |
| 35 — 39 "..... | 2,429 | 669 | 867 | 3,965 | 2.0 | 10.5 | 18.1 | 3.0 |
| 40 — 44 "..... | 1,226 | 847 | 577 | 2,650 | 1.0 | 13.3 | 12.1 | 2.0 |
| 45 — 49 "..... | 728 | 876 | 353 | 1,962 | 0.6 | 13.8 | 7.5 | 1.5 |
| 50 — 54 "..... | 388 | 785 | 168 | 1,341 | 0.3 | 12.4 | 3.5 | 1.0 |
| 55 — 59 "..... | 197 | 666 | 85 | 948 | 0.2 | 10.5 | 1.8 | 0.7 |
| 60 — 64 "..... | 95 | 584 | 33 | 712 | 0.1 | 9.2 | 0.7 | 0.5 |
| 65 years or over..... | 67 | 798 | 14 | 879 | 0.1 | 12.6 | 0.3 | 0.7 |
| Ages not stated..... | 3 | 2 | — | 5 | -- | -- | — | -- |
| Totals, All Ages..... | 121,585 | 6,349 | 4,779 | 132,713 | 91.6 | 4.8 | 3.6 | 100.0 |
| Average ages..... | 23.4 | 48.4 | 35.0 | 25.0 | ... | ... | ... | ... |

21.—Brides and Bridegrooms by Age and Marital Status 1955 and 1956—concluded

| Year and Age Group | BRIDEGROOMS | | | | | | | |
|------------------------------|----------------|--------------|--------------|----------------|-------------|------------|------------|--------------|
| | Numbers | | | | Percentages | | | |
| | Bachelors | Widowers | Divorced | Total | Bachelors | Widowers | Divorced | Total |
| 1955 | | | | | | | | |
| Under 20 years..... | 6,699 | 1 | 2 | 6,702 | 5.7 | -- | -- | 5.2 |
| 20 — 24 "..... | 56,315 | 39 | 160 | 56,514 | 48.1 | 0.6 | 3.5 | 44.2 |
| 25 — 29 "..... | 34,135 | 177 | 717 | 35,029 | 29.1 | 2.9 | 15.6 | 27.4 |
| 30 — 34 "..... | 11,385 | 329 | 1,043 | 12,757 | 9.7 | 5.5 | 22.7 | 10.0 |
| 35 — 39 "..... | 4,157 | 387 | 869 | 5,413 | 3.5 | 6.4 | 18.9 | 4.2 |
| 40 — 44 "..... | 2,109 | 498 | 752 | 3,359 | 1.8 | 8.3 | 16.4 | 2.6 |
| 45 — 49 "..... | 1,082 | 629 | 496 | 2,207 | 0.9 | 10.5 | 10.8 | 1.7 |
| 50 — 54 "..... | 653 | 696 | 288 | 1,637 | 0.6 | 11.6 | 6.3 | 1.3 |
| 55 — 59 "..... | 318 | 785 | 161 | 1,264 | 0.3 | 13.1 | 3.5 | 1.0 |
| 60 — 64 "..... | 176 | 827 | 55 | 1,058 | 0.2 | 13.8 | 1.2 | 0.8 |
| 65 years or over..... | 150 | 1,633 | 43 | 1,826 | 0.1 | 27.2 | 0.9 | 1.4 |
| Ages not stated..... | 11 | — | — | 11 | -- | — | — | -- |
| Totals, All Ages..... | 117,190 | 6,001 | 4,586 | 127,777 | 91.7 | 4.7 | 3.6 | 100.0 |
| Average ages..... | 26.2 | 54.9 | 38.4 | 28.0 | ... | ... | ... | ... |
| 1956 | | | | | | | | |
| Under 20 years..... | 7,486 | — | 2 | 7,488 | 6.1 | -- | -- | 5.6 |
| 20 — 24 "..... | 58,880 | 39 | 163 | 59,082 | 48.3 | 0.7 | 3.4 | 44.5 |
| 25 — 29 "..... | 35,552 | 140 | 813 | 36,505 | 29.1 | 2.4 | 16.8 | 27.5 |
| 30 — 34 "..... | 11,350 | 286 | 1,070 | 12,706 | 9.3 | 4.9 | 22.1 | 9.6 |
| 35 — 39 "..... | 4,297 | 388 | 885 | 5,570 | 3.5 | 6.6 | 18.3 | 4.2 |
| 40 — 44 "..... | 2,031 | 494 | 731 | 3,256 | 1.7 | 8.4 | 15.1 | 2.5 |
| 45 — 49 "..... | 1,168 | 640 | 546 | 2,354 | 1.0 | 10.9 | 11.3 | 1.8 |
| 50 — 54 "..... | 597 | 676 | 339 | 1,612 | 0.5 | 11.6 | 7.0 | 1.2 |
| 55 — 59 "..... | 344 | 792 | 168 | 1,304 | 0.3 | 13.5 | 3.5 | 1.0 |
| 60 — 64 "..... | 168 | 805 | 72 | 1,045 | 0.1 | 13.8 | 1.5 | 0.8 |
| 65 years or over..... | 154 | 1,587 | 45 | 1,786 | 0.1 | 27.1 | 0.9 | 1.3 |
| Ages not stated..... | 5 | — | — | 5 | -- | — | — | -- |
| Totals, All Ages..... | 122,032 | 5,847 | 4,534 | 132,713 | 92.0 | 4.4 | 3.6 | 100.0 |
| Average ages..... | 26.1 | 55.1 | 38.5 | 27.9 | ... | ... | ... | ... |

Religious Denominations of Brides and Bridegrooms.—The distribution of brides and bridegrooms by religious denominations is roughly the same as that for the population as a whole. Table 22 shows the very strong influence that religion has on marriage. About 71 p.c. of all marriages are between persons of the same religious denomination; in 1956 among those of Jewish faith it was over 93 p.c.; among Roman Catholics nearly 89 p.c.; United Church 62 p.c.; and Eastern Orthodox over 59 p.c.

22.—Marriages by Religious Denominations of Contracting Parties 1955 and 1956
(Exclusive of the Yukon and Northwest Territories)

| Denomination of Bridegroom | Denomination of Bride | | | | | | | | | | Total Mar- riages | P.C. of Groom |
|---------------------------------|-----------------------|--------------|-------------------------------|-------------|---------------|------------------------|-------------------------------------|------------------|----------------|---------------|-------------------------|---------------------|
| | Angli- can | Bap- tist | East- ern Orth- odox | Jew- ish | Luth- eran | Pres- byter- ian | Roman Cath- olic ¹ | United Church | Other Sects | Not Stated | | |
| | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | | |
| 1955 | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | |
| Anglican..... | 7,860 | 617 | 95 | 13 | 390 | 783 | 1,936 | 3,540 | 532 | 3 | 15,769 | 12. |
| Baptist..... | 632 | 2,094 | 17 | 4 | 116 | 191 | 435 | 925 | 297 | — | 4,711 | 3. |
| Eastern Orthodox... | 128 | 25 | 1,197 | 2 | 92 | 26 | 373 | 191 | 63 | — | 2,097 | 1. |
| Jewish..... | 32 | 2 | 7 | 1,428 | 3 | 5 | 50 | 29 | 20 | — | 1,576 | 1. |
| Lutheran..... | 483 | 129 | 68 | 4 | 2,870 | 148 | 818 | 805 | 282 | — | 5,607 | 4. |
| Presbyterian..... | 891 | 193 | 33 | 2 | 147 | 2,030 | 608 | 1,286 | 204 | — | 5,394 | 4. |
| Roman Catholic ¹ ... | 1,720 | 362 | 294 | 22 | 892 | 484 | 52,218 | 2,130 | 763 | 6 | 58,891 | 46. |
| United Church..... | 3,344 | 795 | 150 | 6 | 748 | 1,009 | 2,148 | 15,055 | 872 | 3 | 24,130 | 18. |
| Others..... | 634 | 281 | 59 | 12 | 326 | 208 | 991 | 1,024 | 6,041 | 1 | 9,577 | 7. |
| Not stated..... | 2 | — | — | — | 3 | — | 9 | 2 | 1 | 8 | 25 | -- |
| Totals..... | 15,726 | 4,498 | 1,920 | 1,493 | 5,587 | 4,884 | 59,586 | 21,987 | 9,075 | 21 | 127,777 | 100. |
| P.C. of brides..... | 12.3 | 3.5 | 1.5 | 1.2 | 4.4 | 3.8 | 46.6 | 19.6 | 7.1 | -- | 100.0 | 71. |

For footnotes, see end of table.

22.—Marriages by Religious Denominations of Contracting Parties 1955 and 1956—concluded

| Denomination of Bridegroom | Denomination of Bride | | | | | | | | | | Total Marriages | P.C. of Grooms |
|-----------------------------------|-----------------------|--------------|-------------------------------|--------------|---------------|------------------------|-------------------------------------|------------------|----------------|---------------|-----------------|-------------------|
| | Angli- can | Bap- tist | East- ern Orth- odox | Jew- ish | Luth- eran | Pres- byter- ian | Roman Cath- olic ¹ | United Church | Other Sects | Not Stated | | |
| 1956 | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | |
| Anglican..... | 8,059 | 610 | 90 | 12 | 421 | 799 | 1,920 | 3,473 | 567 | 4 | 15,955 | 12.0 |
| Baptist..... | 555 | 2,166 | 21 | 3 | 124 | 154 | 439 | 977 | 305 | — | 4,844 | 3.6 |
| Eastern Orthodox..... | 133 | 30 | 1,178 | 1 | 66 | 29 | 378 | 201 | 62 | — | 2,078 | 1.6 |
| Jewish..... | 23 | 5 | 3 | 1,559 | 13 | 15 | 50 | 25 | 18 | — | 1,711 | 1.3 |
| Lutheran..... | 496 | 154 | 67 | 4 | 2,799 | 185 | 843 | 850 | 306 | — | 5,704 | 4.3 |
| Presbyterian..... | 901 | 223 | 27 | 3 | 168 | 1,957 | 676 | 1,261 | 170 | 1 | 5,387 | 4.1 |
| Roman Catholic ¹ | 1,791 | 379 | 295 | 24 | 876 | 458 | 55,593 | 2,224 | 819 | 5 | 62,464 | 47.1 |
| United Church..... | 3,264 | 859 | 179 | 6 | 675 | 1,071 | 2,212 | 15,374 | 816 | 2 | 24,458 | 18.4 |
| Other..... | 638 | 275 | 47 | 15 | 350 | 195 | 1,029 | 1,144 | 6,392 | 1 | 10,086 | 7.6 |
| Not stated..... | 1 | 1 | — | — | — | — | 5 | 4 | 4 | 11 | 26 | — |
| Totals..... | 15,961 | 4,702 | 1,907 | 1,627 | 5,492 | 4,863 | 63,145 | 25,533 | 9,459 | 24 | 132,713 | 100.0 |
| P.C. of brides..... | 12.0 | 3.5 | 1.4 | 1.2 | 4.1 | 3.7 | 47.6 | 19.2 | 7.1 | — | 100.0 | 71.6 ² |

¹ Includes Greek Catholic.
denomination.

² Percentage of marriages between contracting parties of the same religious

Subsection 2.—Dissolutions of Marriage (Divorces)

For many years after Confederation the number of divorces granted in Canada was small. There were fewer than 20 divorces in every year before 1900, 21 in 1903, 51 in 1909 and 60 in 1913. These numbers represent less than one per 1,000 of the yearly number of marriages.

At the end of World War I in 1918 the number of divorces increased. The generally unsettled conditions and the long separation of men on Active Service from their wives may have contributed to this increase. Changes in law and procedure may also have been a further factor—at present, Quebec and Newfoundland are the only provinces in which applicants for divorce must secure a private Act of Parliament. The number of divorces increased from 11 in 1900 to a peak of 8,199 in 1947, declining gradually to a postwar low of 5,263 in 1951. Since then the annual number has been fluctuating between 5,600 and 6,100.

23.—Dissolutions of Marriage (Divorces) by Province, Alternate Years 1916-50 and 1951-56

NOTE.—Figures for the years 1900-49 are given in the 1956 Year Book, p. 230.

| Year | Nfld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Canada |
|-----------|-------|--------|------|------|------|-------|------|-------|-------|-------|--------|
| | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| 1916..... | .. | — | 14 | 11 | 1 | 18 | 2 | 2 | 1 | 18 | 67 |
| 1918..... | .. | — | 24 | 10 | 2 | 10 | — | 1 | 2 | 65 | 114 |
| 1920..... | .. | — | 45 | 15 | 9 | 89 | 42 | 20 | 112 | 136 | 468 |
| 1922..... | .. | — | 35 | 12 | 6 | 91 | 97 | 35 | 129 | 138 | 543 |
| 1924..... | .. | — | 42 | 15 | 13 | 113 | 77 | 26 | 118 | 136 | 540 |
| 1926..... | .. | — | 19 | 12 | 10 | 111 | 85 | 50 | 154 | 167 | 608 |
| 1928..... | .. | — | 28 | 13 | 24 | 213 | 79 | 57 | 173 | 203 | 790 |
| 1930..... | .. | — | 19 | 27 | 41 | 204 | 114 | 64 | 151 | 255 | 875 |
| 1932..... | .. | — | 35 | 26 | 27 | 343 | 114 | 66 | 150 | 245 | 1,006 |
| 1934..... | .. | — | 33 | 17 | 38 | 365 | 126 | 67 | 170 | 306 | 1,122 |
| 1936..... | .. | — | 41 | 38 | 40 | 519 | 179 | 84 | 218 | 451 | 1,570 |
| 1938..... | .. | 2 | 51 | 39 | 83 | 824 | 205 | 126 | 271 | 625 | 2,226 |
| 1940..... | .. | — | 60 | 52 | 62 | 916 | 206 | 125 | 274 | 674 | 2,369 |
| 1942..... | .. | 2 | 70 | 69 | 71 | 1,185 | 284 | 209 | 375 | 824 | 3,089 |
| 1944..... | .. | 3 | 93 | 78 | 108 | 1,471 | 316 | 226 | 484 | 1,009 | 3,788 |

23.—Dissolutions of Marriage (Divorces) by Province, Alternate Years 1916-50 and 1951-56
—concluded

| Year | Nfld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Canada |
|-------------------------|-------|--------|------|------|------|-------|------|-------|-------|-------|--------|
| | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| 1946..... | .. | 4 | 260 | 382 | 290 | 2 639 | 636 | 505 | 962 | 2 005 | 7 683 |
| 1948..... | .. | 49 | 781 | 211 | 292 | 3 107 | 477 | 333 | 651 | 1 683 | 6 881 |
| 1950..... | 5 | 13 | 199 | 194 | 234 | 2 228 | 309 | 280 | 534 | 1 377 | 5 373 |
| 1951..... | 4 | 10 | 187 | 156 | 289 | 2 102 | 361 | 226 | 589 | 1 339 | 5 263 |
| 1952..... | 3 | 9 | 188 | 200 | 309 | 2 202 | 338 | 223 | 630 | 1 532 | 5 634 |
| 1953..... | 9 | 15 | 185 | 181 | 273 | 2 774 | 374 | 218 | 603 | 1 478 | 6 110 |
| 1954..... | 8 | 8 | 249 | 117 | 370 | 2 468 | 371 | 250 | 610 | 1 471 | 5 922 |
| 1955..... | 1 | 7 | 253 | 181 | 396 | 2 509 | 337 | 237 | 627 | 1 483 | 6 031 |
| 1956 ^a | 5 | 1 | 230 | 215 | 351 | 2 366 | 314 | 221 | 685 | 1 502 | 5 890 |

¹ By a new rule adopted in August 1948, a *decree nisi* became absolute at the end of three months and as a result a number of divorces did not become effective until the following year.

Section 6.—Canadian Life Tables

Three official life tables for Canada have been published: the first was calculated on the basis of the deaths of 1930-32 and the census population of 1931; the second on the basis of the deaths of 1940-42 and the census population of 1941 and the third was based on the Census of 1951 and deaths during 1950-52. In addition tables have been computed for Canada as a whole for the years 1945 and 1947 based on estimated populations by sex and age and the deaths recorded as having occurred during those years. The life table values for 1951 are given in abbreviated form in Table 24.

Life tables give a summary of the health and general conditions of survival of the population in a conventional, standard form. A hypothetical number (100,000) of births of each sex is assumed as a starting point. The life tables show how, on the basis of the mortality rates at each age in the given years, these 100,000 of each sex are reduced in number by death. For example, during the year 1951, of 100,000 males born, 4,325 died in their first year so that 95,675 survived to one year of age; 326 died in their second year so that 95,349 survived to two years of age, and so on. At 100 years of age only 90 of the original 100,000 would have survived. The probability of death at each age is the ratio between the number of deaths and the population at each age. Finally, the expectation of life is the average number of years which a person might expect to live if the mortality rates in the given years remained constant.

Mortality rates at all ages for males have been almost consistently higher than for females. Males have the highest risk of mortality as compared with females during their first year of life, from their late 'teens to early 30's and from age 50 to 65. For both boys and girls the risk of mortality drops rapidly during childhood and is lowest at about age 10, increases gradually to about age 40 for males and about 50 for females and then rises steeply with advancing age. At the mortality rates given in the 1951 Life Table (see Table 24) about 15,000 males would have died before reaching age 50 as compared with about 11,000 females; only 55,000 of the original group of 100,000 males would have survived to age 70 as compared with about 66,500 women.

By 1951 life expectancy at birth in Canada had reached a new high record of 66.3 years for males and 70.8 for females—comparable to the expectancy for other countries of the world with highly developed medical and public health care. Once a child has passed its first year of life however its life expectancy increases appreciably. At one year of age a male child at present mortality risks may, on the average, expect to live an additional 68.3 years and a female 72.3 years, representing for an infant boy a gain of two full years more than his expectation at birth and 1.5 more years for an infant girl. The expectation of life of a 15 year old boy is 55.4 more years; of a 15 year old girl 59.2 years. At 25 years of age the expectation is about 46 years for men and almost 50 for women and at age 70, 10.4 years for men and 11.6 for women.

24.—Canadian Life Table 1951

| Age | Males | | | | Females | | | |
|---------------|---------------------------|--|--|---------------------|---------------------------|--|--|---------------------|
| | Number Living at Each Age | Number Dying Between Each Age and the Next | Probability of Dying Before Reaching Next Birthday | Expectation of Life | Number Living at Each Age | Number Dying Between Each Age and the Next | Probability of Dying Before Reaching Next Birthday | Expectation of Life |
| At birth..... | 100,000 | | .04325 | 66.33 | 100,000 | | .03423 | 70.83 |
| 1 year..... | 95,675 | 4,325 | .00341 | 68.33 | 96,577 | 3,423 | .00299 | 72.33 |
| 2 years..... | 95,349 | 326 | .00180 | 67.56 | 96,289 | 288 | .00154 | 71.55 |
| 3 "..... | 95,177 | 172 | .00159 | 66.68 | 96,141 | 148 | .00114 | 70.66 |
| 4 "..... | 95,026 | 151 | .00118 | 65.79 | 96,031 | 110 | .00092 | 69.74 |
| 5 "..... | 94,914 | 112 | .00101 | 64.86 | 95,943 | 88 | .00079 | 68.80 |
| 10 "..... | 94,480 | 434 | .00077 | 60.15 | 95,625 | 318 | .00052 | 64.02 |
| 15 "..... | 94,083 | 397 | .00112 | 55.39 | 95,363 | 262 | .00067 | 59.19 |
| 20 "..... | 93,437 | 646 | .00172 | 50.76 | 94,992 | 371 | .00091 | 54.41 |
| 25 "..... | 92,586 | 851 | .00182 | 46.20 | 94,527 | 465 | .00106 | 49.67 |
| 30 "..... | 91,752 | 834 | .00189 | 41.60 | 93,993 | 534 | .00129 | 44.94 |
| 35 "..... | 90,824 | 928 | .00227 | 37.00 | 93,311 | 682 | .00177 | 40.24 |
| 40 "..... | 89,649 | 1,175 | .00328 | 32.45 | 92,354 | 957 | .00257 | 35.63 |
| 45 "..... | 87,877 | 1,772 | .00524 | 28.05 | 90,959 | 1,395 | .00387 | 31.14 |
| 50 "..... | 85,084 | 2,793 | .00853 | 23.88 | 88,911 | 2,048 | .00560 | 26.80 |
| 55 "..... | 80,762 | 4,322 | .01348 | 20.02 | 86,027 | 2,884 | .00834 | 22.61 |
| 60 "..... | 74,444 | 6,318 | .02071 | 16.49 | 81,789 | 4,238 | .01308 | 18.64 |
| 65 "..... | 65,815 | 8,629 | .03004 | 13.31 | 75,525 | 6,264 | .02040 | 14.97 |
| 70 "..... | 55,020 | 10,795 | .04435 | 10.41 | 66,576 | 8,949 | .03308 | 11.62 |
| 75 "..... | 41,835 | 13,185 | .06938 | 7.89 | 53,950 | 12,626 | .05567 | 8.73 |
| 80 "..... | 26,993 | 14,842 | .10846 | 5.84 | 37,712 | 16,238 | .09222 | 6.38 |
| 85 "..... | 13,510 | 13,483 | .16353 | 4.27 | 20,768 | 16,944 | .14637 | 4.57 |
| 90 "..... | 4,667 | 8,843 | .23667 | 3.10 | 7,937 | 12,831 | .22183 | 3.24 |
| 95 "..... | 949 | 3,718 | .32997 | 2.24 | 1,756 | 6,181 | .32229 | 2.27 |
| 100 "..... | 90 | 859 | .44550 | 1.60 | 171 | 1,585 | .45146 | 1.59 |

Table 25 summarizes the life expectancy figures extracted from the Canadian Life Tables for 1931, 1941 and 1951. Life expectancy at birth increased for men from 60 in 1931 to over 66 years in 1951 and from 62 to 70.8 years for women during the same period. This is a gain for males of 3.4 years since 1941 compared with a gain of almost 3 years in the previous decade; females gained 4.5 years since 1941 compared with 4.2 years in the preceding decade. Thus, since 1931 a total of 6.3 years have been added to male life expectancy and female longevity has been lengthened by 8.7 years.

The increases in life expectancy have been predominantly at the younger ages, particularly in infancy, and diminish with advanced age. For example, since 1931, 2.6 years have been added to the life expectancy of a 5 year old male, 1.7 years to a 20 year old, almost 6 months to a 40 year old and barely three months to a 60 year old as compared with 6.3 years for a newborn male. During this period life expectancy for a 5 year old female gained 5.6 years; for a 20 year old 4.7 years, 2.6 years for a 40 year old and 1.5 years for a 60 year old as compared with 8.7 years for a newborn female.

Longevity has improved for both sexes, though more so and at all ages for females, but there has been only slight improvement for males beyond middle life. Briefly the rapid decline in the death rate for infants of both sexes is continuing, with slower declines with advancing age, so that relatively stationary death rates have been established from about 50 years onwards for males and up to about 80 for females.

The fact that such a pattern exists is important in interpreting the results of these life tables. The arbitrary population base of 100,000 of each sex in the tables has been subjected to the mortality rates in effect in 1950-52, and the life expectancy computed as if those death rates at each age were to prevail during their lifetime. Actually the theoretical 200,000 infants born in 1950-52 will most probably have a pattern of survival and life expectancy quite different from that of the present life table as they will spend most of their lives under conditions of public health and medical care which in all likelihood will be superior to those prevailing in 1950-52.

The improvement in life expectancy, particularly among children and adolescents is owing mainly to the substantial reduction in recent years of mortality from infectious diseases; on the other hand diseases associated with middle and old age are much less amenable to control. It is therefore unlikely that improvement in life expectancy in the future will be comparable to that of the past two decades. As approximately 12 p.c. of deaths in 1951 occurred among infants and an additional 72 p.c. among persons over 50 any additional improvement must come as the result of further declines in mortality from conditions associated with childbirth and early infancy, further control of infectious diseases, prevention of accidents, and advances in combating diseases associated with middle and old age, such as cardio-vascular-renal conditions and cancer.

25.—Expectation of Life 1931, 1941 and 1951

| Age | 1931 | | 1941 | | 1951 | |
|---------------|-------|--------|-------|--------|-------|--------|
| | Male | Female | Male | Female | Male | Female |
| | yrs. | yrs. | yrs. | yrs. | yrs. | yrs. |
| At birth..... | 60.00 | 62.10 | 62.96 | 66.30 | 66.33 | 70.83 |
| 1 year..... | 64.69 | 65.71 | 66.14 | 68.73 | 68.33 | 72.33 |
| 2 years..... | 64.46 | 65.42 | 65.62 | 68.16 | 67.56 | 71.55 |
| 3 "..... | 63.84 | 64.75 | 64.88 | 67.38 | 66.68 | 70.66 |
| 4 "..... | 63.11 | 63.99 | 64.07 | 66.56 | 65.79 | 69.74 |
| 5 "..... | 62.30 | 63.17 | 63.22 | 65.69 | 64.86 | 68.80 |
| 10 "..... | 57.96 | 58.72 | 58.70 | 61.08 | 60.15 | 64.02 |
| 15 "..... | 53.41 | 54.15 | 54.06 | 56.36 | 55.39 | 59.19 |
| 20 "..... | 49.05 | 49.76 | 49.57 | 51.76 | 50.76 | 54.41 |
| 25 "..... | 44.83 | 45.54 | 45.18 | 47.26 | 46.20 | 49.67 |
| 30 "..... | 40.55 | 41.38 | 40.73 | 42.81 | 41.60 | 44.94 |
| 35 "..... | 36.23 | 37.19 | 36.26 | 38.37 | 37.00 | 40.24 |
| 40 "..... | 31.98 | 33.02 | 31.87 | 33.99 | 32.45 | 35.63 |
| 45 "..... | 27.79 | 28.87 | 27.60 | 29.67 | 28.05 | 31.14 |
| 50 "..... | 23.72 | 24.79 | 23.49 | 25.46 | 23.88 | 26.80 |
| 55 "..... | 19.88 | 20.84 | 19.64 | 21.42 | 20.02 | 22.61 |
| 60 "..... | 16.29 | 17.15 | 16.06 | 17.62 | 16.49 | 18.64 |
| 65 "..... | 12.98 | 13.72 | 12.81 | 14.08 | 13.31 | 14.97 |
| 70 "..... | 10.06 | 10.63 | 9.94 | 10.93 | 10.41 | 11.62 |
| 75 "..... | 7.57 | 7.98 | 7.48 | 8.19 | 7.89 | 8.73 |
| 80 "..... | 5.61 | 5.92 | 5.54 | 6.03 | 5.84 | 6.38 |
| 85 "..... | 4.10 | 4.38 | 4.05 | 4.35 | 4.27 | 4.57 |
| 90 "..... | 2.97 | 3.24 | 2.93 | 3.13 | 3.10 | 3.24 |
| 95 "..... | 2.14 | 2.40 | 2.09 | 2.26 | 2.24 | 2.27 |
| 100 "..... | 1.53 | 1.77 | 1.46 | 1.64 | 1.60 | 1.59 |

Section 7.—International Comparisons of Vital Statistics

The following table gives a summary of Canada's general and provincial vital statistics rates along with those of several other countries. It will be noted that the low crude death rate in Canada is bettered by only three countries and that some of the provinces have lower rates than most other countries. The birth rate also helps to make Canada one of the fastest growing countries and this country currently ranks sixth among those listed. However there is marked room for improvement in rates of infant mortality; nine of the countries listed have lower rates than Canada.

26.—Principal Vital Statistics Rates of Selected Countries 1956

NOTE.—Countries are ranked according to the highest rates for births, marriages and natural increase and according to the lowest for deaths.

SOURCE: United Nations publications.

| Country or Province | Births | | Deaths | | Infant Mortality | | Neonatal Mortality | | Maternal Mortality | | Marriages | | Natural Increase | |
|--|-------------------|----------|-------------------|----------|-------------------|-----------|--------------------|----------|--------------------|----------|-------------------|----------|-------------------|----------|
| | Rate ¹ | Rank | Rate ² | Rank | Rate ³ | Rank | Rate ³ | Rank | Rate ³ | Rank | Rate ² | Rank | Rate ² | Rank |
| Australia..... | 22.3 | 13 | 9.1 | 9 | 22 ⁴ | 4 | 16 ⁴ | 4 | 0.64 | 4 | 7.6 | 12 | 13.2 | 14 |
| Austria..... | 16.4 | 27 | 12.3 | 22 | 44 | 13 | 284 ⁵ | 13 | 1.14 | 8 | 9.9 | 7 | 7.9 | 29 |
| Belgium..... | 16.8 | 26 | 12.6 | 24 | 36 | 15 | 255 ⁵ | 12 | 0.97 | 6 | 7.7 | 11 | 4.2 | 28 |
| Canada | 28.0 | 6 | 8.2 | 4 | 42 | 10 | 20 | 8 | 0.6 | 4 | 7.3 | 6 | 19.8 | 6 |
| Newfoundland..... | 35.0 | ... | 7.4 | ... | 43 | ... | 23 | ... | 1.6 | ... | 7.4 | ... | 27.6 | ... |
| Prince Edward Island..... | 26.8 | ... | 9.4 | ... | 40 | ... | 25 | ... | 0.4 | ... | 8.6 | ... | 17.4 | ... |
| Nova Scotia..... | 27.5 | ... | 8.3 | ... | 29 | ... | 16 | ... | 0.3 | ... | 8.1 | ... | 19.2 | ... |
| New Brunswick..... | 29.9 | ... | 8.4 | ... | 40 | ... | 21 | ... | 0.5 | ... | 8.3 | ... | 21.8 | ... |
| Quebec..... | 29.4 | ... | 7.6 | ... | 41 | ... | 25 | ... | 0.9 | ... | 8.1 | ... | 21.8 | ... |
| Ontario..... | 26.6 | ... | 8.7 | ... | 25 | ... | 17 | ... | 0.5 | ... | 7.6 | ... | 17.9 | ... |
| Manitoba..... | 25.8 | ... | 8.3 | ... | 31 | ... | 19 | ... | 0.3 | ... | 7.3 | ... | 17.9 | ... |
| Saskatchewan..... | 27.3 | ... | 7.6 | ... | 28 | ... | 17 | ... | 0.3 | ... | 7.3 | ... | 17.9 | ... |
| Alberta..... | 31.1 | ... | 6.9 | ... | 25 | ... | 16 | ... | 0.4 | ... | 8.5 | ... | 24.2 | ... |
| British Columbia..... | 25.9 | ... | 9.6 | ... | 26 | ... | 17 | ... | 0.4 | ... | 8.5 | ... | 24.2 | ... |
| Yukon..... | 40.1 | ... | 7.1 | ... | 48 | ... | 25 | ... | 0.4 | ... | 8.3 | ... | 36.3 | ... |
| Northwest Territories..... | 41.3 | ... | 15.3 | ... | 149 | ... | 68 | ... | ... | ... | 7.7 | ... | 38.0 | ... |
| Ceylon..... | 35.5 | 3 | 9.8 | 12 | 724 | 19 | 437 | 19 | 4.14 | 15 | 7.3 | 19 | 25.0 | 4 |
| Chile..... | 35.0 ⁴ | 4 | 12.84 | 25 | 1214 | 25 | 427 | 18 | 3.47 | 13 | 7.74 | 14 | 22.24 | 5 |
| Denmark..... | 17.2 | 25 | 8.8 | 20 | 254 | 6 | 187 | 6 | 0.54 | 3 | 7.9 | 10 | 8.4 | 22 |
| England and Wales..... | 15.6 | 29 | 11.7 | 28 | 24 | 5 | 17 | 5 | 0.6 | 4 | 7.7 | 10 | 8.4 | 22 |
| Finland..... | 20.8 | 17 | 9.0 | 23 | 32 | 6 | 197 | 7 | 1.04 | 7 | 7.7 | 11 | 1.8 | 30 |
| France..... | 18.3 | 22 | 12.4 | 23 | 32 | 6 | 214 | 9 | 0.64 | 4 | 6.7 | 17 | 1.9 | 20 |
| German Federal Republic..... | 16.2 | 28 | 11.0 | 19 | 424 | 13 | 284 | 13 | 1.57 | 11 | 8.9 | 2 | 5.2 | 27 |
| India ⁹ | 27.4 | 7 | 11.6 | 19 | 1147 | 24 | ... | ... | ... | ... | ... | ... | ... | ... |
| Ireland..... | 16.1 | 20 | 11.7 | 20 | 36 | 11 | 23 | 10 | 0.8 | 5 | 5.7 | 21 | 15.8 | 9 |
| Italy..... | 21.0 | 16 | 10.3 | 15 | 48 | 16 | 288 | 13 | 1.37 | 10 | 7.5 | 13 | 7.8 | 23 |
| Japan..... | 18.1 | 23 | 10.3 | 15 | 40 | 16 | 247 | 11 | 1.84 | 12 | 7.0 | 13 | 7.8 | 23 |
| Mexico..... | 46.24 | 2 | 13.34 | 26 | 824 | 20 | 333 ¹⁰ | 15 | 2.97 | 13 | 6.84 | 18 | 10.4 | 16 |
| Netherlands..... | 21.2 | 14 | 7.8 | 28 | 19 | 2 | 157 | 15 | 0.64 | 3 | 8.9 | 8 | 32.44 | 13 |
| New Zealand..... | 24.7 | 12 | 9.0 | 18 | 254 | 6 | 147 | 2 | 0.57 | 3 | 8.9 | 8 | 13.7 | 13 |
| Northern Ireland..... | 21.1 | 15 | 10.6 | 16 | 21 | 8 | 21 | 9 | 0.6 | 4 | 6.7 | 17 | 13.7 | 13 |
| Norway..... | 18.7 | 19 | 8.5 | 16 | 20 | 8 | 21 | 9 | 0.6 | 4 | 6.7 | 17 | 10.5 | 17 |
| Peru..... | 32.7 | 5 | 6.8 | 30 | 217 | 8 | 138 | 1 | 0.67 | 4 | 7.2 | 15 | 10.2 | 19 |
| Portugal..... | 22.3 | 13 | 12.0 | 21 | 947 | 22 | 247 | 11 | 4.611 | 16 | 7.2 | 22 | 25.9 | 13 |
| Scotland..... | 18.5 | 20 | 12.0 | 21 | 89 | 21 | 308 ⁷ | 14 | 1.54 | 11 | 7.3 | 22 | 10.3 | 19 |
| Spain..... | 20.7 | 18 | 9.9 | 13 | 49 | 10 | 19 | 7 | 0.5 | 8 | 8.5 | 11 | 10.8 | 22 |
| Sweden..... | 14.8 | 30 | 9.6 | 11 | 17 | 17 | 236 | 10 | 1.110 | 8 | 8.8 | 9 | 10.8 | 22 |
| Switzerland..... | 17.4 | 24 | 10.2 | 14 | 264 | 7 | 134 | 1 | 0.57 | 3 | 8.8 | 9 | 10.8 | 22 |
| Union of South Africa (Whites)..... | 25.4 | 10 | 8.84 | 5 | 314 | 9 | 208 ⁸ | 8 | 1.28 | 9 | 9.47 | 1 | 7.2 | 27 |
| Union of Soviet Socialist Republics..... | 25.64 | 9 | 8.4 | 5 | ... | ... | ... | ... | ... | ... | ... | ... | 16.6 | 28 |
| United States..... | 24.9 | 11 | 9.4 | 10 | 26 | 7 | 19 | ... | 0.4 | ... | 9.4 | 1 | 17.24 | 8 |
| Venezuela..... | 46.7 | 1 | 9.9 | 13 | 704 | 18 | 358 ¹⁰ | 16 | ... | ... | ... | ... | 15.5 | 11 |
| Yugoslavia..... | 26.1 | 8 | 11.2 | 18 | 97 | 23 | 408 | 17 | 0.27 | ... | 8.8 | 3 | 26.8 | 7 |

¹ Under four weeks unless otherwise stated.

² Per 1,000 population.

³ Per 1,000 live births.

⁴ 1955.

⁵ Under one month.

⁶ 1952.

⁷ 1954.

⁸ 1953.

⁹ Registration area only.

¹⁰ 1950.

CHAPTER VI.—PUBLIC HEALTH, WELFARE AND SOCIAL SECURITY*

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

PART I.—PUBLIC HEALTH

HEALTH IN CANADA

Advances in medical sciences and the development of health services have contributed to a marked improvement in the health of Canadians during recent years. Higher nutritional standards, better housing and the growth of social services have had a favourable influence. The greatest development in these areas has taken place since the end of the second world war, a period marked by record high fertility and relatively heavy immigration. There has also been a marked shift in health indices. Canada's crude death rate and maternal, infant, and neonatal death rates have shown as much proportionate decrease in the past ten years as had occurred during the previous twenty.

* Except where otherwise indicated, this Chapter was prepared by the Research and Statistics Division of the Department of National Health and Welfare, Ottawa.

Improvements in health conditions have affected people of all ages, though the greatest impact has been made on health of infants and youths. For some younger age groups death rates have dropped by more than two-thirds during the past quarter-century; gains made in older age groups have been much more modest. During the twenty-year period up to 1951 life expectancy at birth for males rose from 60 to 66 years and for females from 62 to 71 years. Average age at death, a cruder index of the life span, in the thirty-year period up to 1956 advanced for males from 40 to 58 years and for females from 42 to 61 years.

Some improvements in health can be directly related to specific public health measures, others to general advances in medical care. Well established community procedures like chlorination of water supplies, pasteurization of milk, sanitary disposal of sewage and health inspection of food handling have done much to reduce the incidence of typhoid fever and other water and food-borne infections. Vaccination has eliminated smallpox from Canada, though as recently as 1928 over three thousand cases of smallpox were reported in this country.

The extensive development of antibiotics and other prophylactic agents such as poliomyelitis vaccine has served to reduce the severity or the degree of disability caused by many primary infections and to provide protection against secondary infection. In 1956 only 1.8 p.c. of all deaths were due to infectious diseases, including tuberculosis; thirty years ago infectious disease accounted for 12.6 p.c. of deaths. Similar decreases in deaths have occurred in other diseases such as rheumatic fever and pneumonia where infection plays a part in other disease processes.

But, while many of man's oldest diseases are being controlled, the nature and cure of chronic and degenerative illness remain too largely unknown, and new sources of ill health are emerging from the complex development of industrial civilization. In this country and elsewhere occupational hazards from toxic substances and accidents have become a matter of increasing concern. The contamination of air and water for the community from industrial wastes becomes a progressively more severe problem. Accidents are assuming an alarming position among the leading causes of death, vehicular and other traffic accidents resulting in a tragic mounting loss of life. The rapid development of urban living has also created many other problems related to health. Inadequate housing and recreation facilities, excessive use of alcohol, drug addiction, and juvenile delinquency are special urban problems. Increasing use of radioactive agents in many different fields of endeavour requires special health precautions and the general problem of the effects of radiation on life is one of the most important and pressing of today.

Health of Mothers and Children.—Continuing high fertility produced a record of 450,000 births in Canada in 1956, but the 1956 infant mortality rate of 32 still stands far above the Swedish and Netherlands rates of 17 and 19 deaths per thousand live births. Of the 14,399 infants who died during their first year, nearly two-thirds of deaths occurred during the first 28 days of life. Immaturity, congenital malformations and birth injury continued to be the leading causes of infant deaths. For mothers, 278 deaths in 1956 established a new low rate of maternal mortality, approximately one-tenth the rate 25 years ago. Regional differences continue to affect the national picture of maternal and infant deaths.

Health of Young People.—Following the first year of life survival rates are high throughout childhood. Although more than one-third of the population are between one and 20 years of age, they account for only one of every 25 deaths. Accidents account for the largest number of deaths in childhood, principally traffic casualties and drownings. Respiratory and digestive disorders are also leading causes of death.

Despite the relatively low number of deaths, sickness rates in childhood remain high. The Canadian Sickness Survey of 1951 showed that 87 p.c. of children under 15 reported sickness and 57 p.c. reported time spent sick in bed. Each child suffered an average of three sicknesses a year, a sickness lasting 12 days on the average. Colds and influenza which are rife at all ages were a leading cause of sickness. The communicable diseases

of childhood, (measles, mumps, chickenpox, whooping cough and scarlet fever) also accounted for much sickness; well over a million cases of these diseases were reported during the survey year. In March 1957 there were nearly five thousand persons suffering from such long-term conditions, generally congenital or arising in early childhood, as epilepsy, cerebral spastic infantile paralysis or the late effects of infantile paralysis and there were over 10,000 mentally defective persons receiving allowances for total and permanent disabilities, in addition to those in institutions.

Health of Adults.—The health of the adult population has also been affected by modern preventive and treatment services and control of many infectious respiratory and digestive diseases has markedly reduced death rates from these causes. Degenerative diseases, on the other hand, continue to take an increasing toll of life and health through the working years.

Thirty years ago women experienced a higher death rate than men through their reproductive years; the situation is now reversed, with women's death rates reduced by two-thirds and male death rates reduced by one-half. Accidents, frequently occupational, are the leading cause of death for men; past the age of 30 cancer becomes the leading cause of death for women. From age 50 on there are marked trend differences in death rates between the sexes. While the rates for women in their 50's and 60's have dropped by about one-third there has, over the past quarter-century, been no significant decrease in the male death rate; in 1955 there were seven men who died for every four deaths among women in this age range. Half the deaths of both sexes are due to heart disease. One-third of female deaths and one-fifth of male deaths result from cancer. Diabetes also ranks as a leading cause of death for both sexes. Accidents continue to take a heavy toll with higher rates among males.

The Permanent Physical Disability Study carried out as a supplement to the Canadian Sickness Survey in 1951 reported that 317,000 persons aged 45 to 64 were permanently physically handicapped; of this number 136,000 were severely or totally disabled. The high death rate from degenerative diseases in the adult population is preceded in many instances by periods of illness and disability.

Health of Older People.—The growing burden of chronic illness in old age is reflected in mortality and morbidity data. In 1955, 63 p.c. of deaths over age 65 were caused by heart and artery diseases; 15.6 p.c. were the result of cancer. Cardiovascular disease and cancer account for approximately one-third of all old age admissions to general hospitals and a large share of hospital care in old age is for respiratory and digestive ailments. The chronic nature of sickness in old age is emphasized by the findings of the Canadian Sickness Survey. Persons over 65 accounted for only 7 p.c. of the survey population but for 15 p.c. of the total days of illness. Much disability was permanent as was indicated by the fact that 162,000 persons over 65 were estimated to be severely or totally disabled. Heart disease, arthritis, impairments from accidents, blindness, deafness and chronic diseases of the nervous system accounted for 60 p.c. of all persons reporting permanent disability. The Canadian Sickness Survey did not include residents of chronic care institutions. In 1955 there were about 140,000 persons under care in mental, tuberculosis and other chronic care hospitals. Persons over 65 years of age accounted for one-quarter of all separations from mental institutions. One-quarter of discharges and two-thirds of deaths in mental institutions in old age were diagnosed as senile or suffering from cerebral arteriosclerosis.

Health Problems.—The increasing impact of chronic disease and the continuing high death rates in the productive years of life caused by degenerative diseases, high accident rates, the threat presented by radiation and other hazards to the health of the Canadian as well as other peoples are the subject of increasingly intense research in many countries. Canadian research has made a considerable contribution both in terms of guiding hypotheses and in clinical work. The active participation of Canadian scientists in international research ensures that Canadians are able to benefit quickly and freely

from any new findings which may modify established medical practice. The system of informational services, preventive public health and health care programs being built up across the country brings to increasing numbers of Canadians the resources and facilities that make possible the raising of health standards.

Section 1.—Federal, Provincial and Municipal Health Activities

Public health services in Canada are provided through the federal, provincial and local governments, with important contributions being made by voluntary agencies.

The Federal Government provides consultant and specialist services to the provinces, assists in the financing of provincial programs, provides services to special groups such as veterans and Indians, exercises control over the standard and distribution of food and drugs, maintains quarantine measures and is responsible for the carrying out of certain international health obligations.

The provinces play the major role in the provision of public health services to the people of Canada. Most programs are administered by the province or by local government under provincial legislation.

Voluntary agencies organized nationally, provincially or locally provide many services and carry on programs of health education.

Subsection 1.—Federal Health Activities

Federal participation in health matters is largely centred in the Department of National Health and Welfare, with certain important programs being administered by the Department of Veterans Affairs which provides medical and hospital care to veterans for disabilities resulting from war service; the Department of National Defence which is responsible for the health of the Armed Forces and which, through the Defence Research Board, participates in medical research; the Medical Division of the National Research Council which administers grants for medical research; and the Dominion Bureau of Statistics which is responsible for the collection and compilation of health statistics. The Department of Agriculture has certain responsibilities in connection with food production.

Under the Department of National Health and Welfare Act of 1944 that Department is responsible for the administration of certain statutes, for research in health matters, for the carrying out of international health obligations undertaken by Canada and, in co-operation with the provinces, for the preservation and improvement of public health.

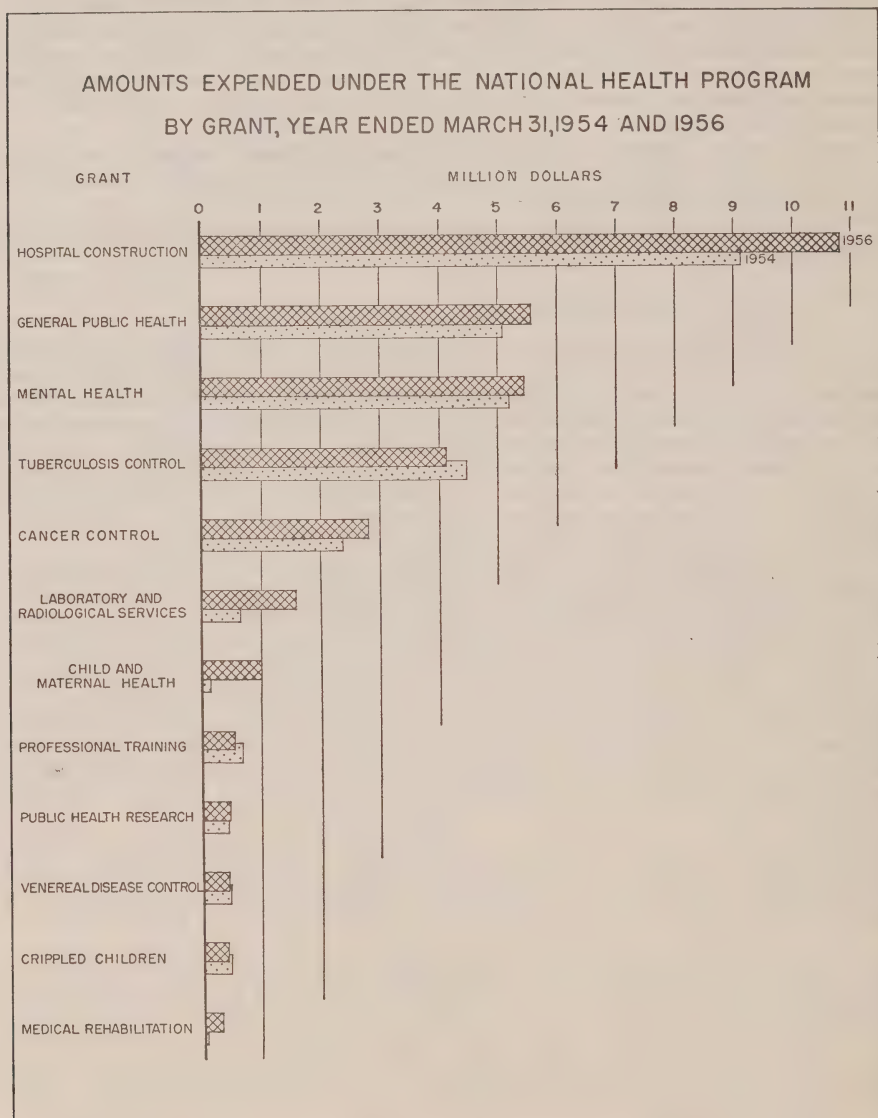
Under the Quarantine Act, the Department maintains a maritime and aerial navigation quarantine service against entry of infectious diseases; it advises on the administration of sections of the Immigration Act dealing with health and conducts, in Canada and overseas, the medical examination of applicants for immigration. It also provides care for sick mariners, as required under Part V of the Canada Shipping Act, and has certain national and international responsibilities with regard to the pollution of boundary and other waters.

Under the Food and Drugs Act, the Proprietary or Patent Medicine Act, and the Opium and Narcotic Drug Act, the Department is responsible for the control of the safety and purity of food and drugs; the registration, preparation and sale of proprietary or patent medicines; and control of the import, export and distribution of narcotic drugs.

The Department advises on the visual eligibility of applicants for blindness allowances and co-operates with the provinces in the provision of surgical or remedial treatment for recipients of these allowances; it is responsible for supervision of health conditions for persons employed on federal public works, as provided under the Public Works Health Act, and maintains a program for the conservation and promotion of the health of civil servants and other Federal Government employees. Medical advisory services are provided for the Department of Transport in all matters pertaining to the safety, health and comfort of air crew and passengers.

The National Health Program.*—The National Health Program, which consists of 12 separate grants available to all provinces and the territories, was introduced in 1948 for the development of health and hospital services. Since the inception of the program the provinces have steadily increased utilization of their grants. The annual amounts of expenditure in each fiscal year have been as follows: 1948-49, \$7,400,000; 1949-50, \$15,500,000; 1950-51, \$18,700,000; 1951-52, \$23,900,000; 1952-53, \$26,900,000; 1953-54, \$29,200,000; 1954-55, \$31,600,000; 1955-56, \$33,500,000; and 1956-57, \$36,300,000.

* A special article on the first five years of the National Health Program is given in the 1954 Year Book, pp. 215-223.



1.—Amounts Available to the Provinces and Amounts and Percentages Expended under the National Health Program, by Grant, Year Ended Mar. 31, 1957

| Grant | Amount Available ¹ | Amount Expended | Proportion Expended |
|---|-------------------------------|-------------------|---------------------|
| | \$ | \$ | p.c. |
| Cancer control..... | 3,598,795 | 3,248,817 | 90 |
| Crippled children..... | 519,898 | 465,751 | 89 |
| General public health..... | 7,800,500 | 6,040,234 | 77 |
| Hospital construction ² | 17,918,174 | 11,374,876 | 63 |
| Mental health..... | 7,234,868 | 6,342,328 | 88 |
| Professional training..... | 516,300 | 515,626 | 99 |
| Public health research..... | 512,900 | 430,283 | 84 |
| Tuberculosis control..... | 4,239,531 | 4,275,379 | 101 |
| Veneral disease control..... | 518,099 | 466,020 | 90 |
| Child and maternal health ³ | 2,000,000 | 993,277 | 50 |
| Laboratory and radiological services ³ | 7,020,450 | 1,639,829 | 23 |
| Medical rehabilitation ³ | 1,060,000 | 487,723 | 49 |
| Totals..... | 52,879,515 | 36,280,143 | 69 |

¹ Authorized by P.C. 1956-33/660 and by Supplementary Estimates (Vote No. 655). For the purpose of this table, the amounts available for the Yukon and Northwest Territories were distributed by grant although the Order-in-Council did not show this distribution.

² Grant consisted of \$6,683,660 for new projects and a revote of \$11,155,324 to complete projects approved before Apr. 1, 1953, on which construction started before Oct. 1, 1953, and also projects approved after Mar. 31, 1953, and those approved prior to that date the construction of which commenced after Sept. 30, 1953. Also included is special revote of \$79,190 for the Yukon and Northwest Territories.

³ First introduced in fiscal year 1953-54.

Up to Mar. 31, 1957, aid for construction was approved for 64,788 beds, 8,183 bassinets, 11,450 nurses' beds and space in community health centres and combined laboratories exceeding 7,500 bed equivalents. Approximately 15,700 health workers had been trained or were undergoing special training and more than 6,000 additional health workers had been employed with federal grant assistance.

Federal Grants to Non-government Organizations.—Grants are paid directly to the following non-government agencies engaged in health work: the Canadian Red Cross Society, the Canadian Tuberculosis Association, the Victorian Order of Nurses, the St. John Ambulance Association, the Canadian Paraplegic Association, the Canadian Mental Health Association, the Health League of Canada, the Canadian Public Health Association, the Canadian National Institute for the Blind, L'Association Canadienne-Française des Aveugles, L'Institut Nazareth de Montreal, and the Montreal Association for the Blind.

Federal grants are also provided under the National Health Program to assist in the operation of special treatment services carried out in a number of provinces by voluntary organizations such as the Canadian Arthritis and Rheumatism Society and various agencies engaged in the rehabilitation of crippled children.

Medical Care of Indians and Eskimos.—In 1956, 18 hospitals, 44 nursing stations, 26 clinics, 8 nurse dispensaries and 62 other health centres were operated by the Department which also reimburses on a per diem basis the mission and other non-federal hospitals that provide accommodation for Indians and Eskimos. Full-time departmental medical officers serve the larger Indian reserves and part-time officers serve the smaller bands. Fees are also paid to local physicians for services to Indians. Information relating to all health services provided in the Yukon and Northwest Territories is given at pp. 250-251.

Consultative Services.—Certain Divisions of the Department provide technical information and advice concerning the evaluation of programs and procedures and the establishment of standards in various health fields; they conduct surveys in research and development both independently and in co-operation with other departments and agencies. These Divisions include Blindness Control, Child and Maternal Health, Occupational Health, Nutrition, Mental Health, Dental Health, Epidemiology, Hospital Design, the Laboratory of Hygiene, Information Services, and Research and Statistics.

Federal Hospital Insurance and Diagnostic Services Offer.—During 1956 and 1957 considerable progress was made toward the development of a federal-provincial system of hospital insurance and laboratory and radiological diagnostic services. For some years the Provinces of British Columbia and Saskatchewan have operated programs of hospital insurance on the basis of universal coverage and in the Provinces of Alberta and Newfoundland there have been similar programs covering smaller percentages of their population.

In January 1956 the Federal Government offered to share on a grant-in-aid basis the costs of hospital insurance and laboratory and radiological diagnostic services on certain conditions. The offer was conditional on its acceptance by a majority of provinces representing a majority of population. Universal benefits must be available within the province and the offer specified shareable and non-shareable costs. Standard ward hospital care must be provided as a basic benefit and the costs of superior accommodation must be charged to the patient who might, if he chose, insure voluntarily for this accommodation. It was anticipated that there would be substantial variation between provinces in the patterns of provincial organization and methods of financing, whether by personal premiums, sales taxes, general provincial revenues or combinations of these.

The Hospital Insurance and Diagnostic Services Act passed by the Parliament of Canada was proclaimed on May 1, 1957, authorizing the Government of Canada to enter into agreements with provincial governments. By the summer of 1957 it was apparent that at least eight provinces had indicated their intention of proceeding with hospital insurance plans along the lines of the federal proposal.

Subsection 2.—The Dominion Council of Health

The Dominion Council of Health is a statutory advisory body to the Minister of National Health and Welfare, established in 1919 and deriving its present legislative authority from Sect. 7 of the National Health and Welfare Act 1944 (R.S.C. 1952, c. 74). It is composed of the Deputy Minister of National Health who acts as Chairman, the Deputy Ministers of Health of each of the ten provinces and five appointees of the Governor in Council, selected by tradition to represent such major segments of the population as agriculture, organized labour and women's organizations.

The duties and powers of the Council as formally prescribed by the Governor in Council are:—

- (1) The consideration of matters relating to the promotion or preservation of the health of the people of Canada and the initiation of recommendations and proposals to the Minister of National Health and Welfare and other appropriate authorities in regard thereto;
- (2) The furnishing of advice to the Minister of National Health and Welfare in respect to the matters provided in Sect. 5 of the Department of National Health and Welfare Act, relating to the promotion or preservation of the health of the people of Canada, over which the Parliament of Canada has jurisdiction.

Through the Council a direct means of co-operation at the technical level is provided between provincial health departments and the Department of National Health and Welfare. In addition to being able to draw on both federal and provincial resources to aid its deliberations, it is assisted by a number of technical advisory committees composed of federal and provincial officials in different specialized fields. These committees include the Technical Advisory Committee on Public Health Laboratory Services, the Advisory Committee on Mental Health, the Federal-Provincial Nutrition Committee, the Federal-Provincial Conference on Health Education, the Federal-Provincial Conference of Communicable Disease Control Directors and the Technical Advisory Committee on Public Health Engineering.

The Council usually meets twice each year. Any member may submit items for the agenda and any agency wishing to make representation to the Council may do so. Consideration of a matter by the Council usually infers that it is of some common interest or concern to more than one province.

Although the Council is of a purely advisory character its recommendations reflect the considered opinions of senior health administrators and scientific workers across the country and have had very considerable influence on the development of public health administration in Canada. The recommendations frequently have led to an early combined approach by federal and provincial governments which might otherwise have been achieved only after long periods of negotiation. It has taken an active part in the development of the National Health Program and, in addition to advising on the general operation of the program and on situations developing in different provinces, has played an important role in such combined federal-provincial projects as the National Sickness Survey. Through the arrangements made by the Council for the production and distribution of ACTH and cortisone for use by clinical investigators throughout Canada it has been estimated that the clinical assessment of their value was advanced by at least two years. In the same way the Council was able to facilitate arrangements for the production of gamma globulin and later of Salk vaccine.

Subsection 3.—Provincial and Municipal Health Activities

Provincial health functions commonly include central planning and administration; the operation of laboratories and of special programs affecting the entire province in such fields as cancer, mental health and tuberculosis; consultant service to local authorities; and either supervision or administration of local services.

At the local level responsibility for services varies widely but municipalities in most provinces provide basic services and participate in the cost of hospital care for indigents. In recent years there has been a rapid growth of health services in smaller centres and rural areas through the organization of health units with full-time staff serving counties or other combinations of local government areas. These units provide a generalized program that includes public health nursing, sanitary inspection, communicable disease control, child and maternal health and school hygiene and health education. Financial and administrative responsibility usually is shared by the provincial and the local authority. Municipalities outside fully organized health-unit areas usually appoint part-time medical officers and other personnel while the provincial authorities assume responsibility in the areas lacking municipal organization.

Newfoundland.—Health services in Newfoundland are administered largely by the Province and include provision of public hospital and medical care in large areas of the Province.

General Public Health Services.—A preventive service is operated in St. John's through public health nurses. Dietary supplements such as orange juice and cod liver oil are distributed throughout the Province. Environmental health services are administered through an inspection service in St. John's and regional offices at Corner Brook and Grand Falls. The Division of Laboratories administers a public health laboratory, the St. John's General Hospital laboratory and a blood bank. Routine diagnostic work is being decentralized through the employment of combined laboratory and X-ray technicians in outpost cottage hospitals.

Hospital and Medical Care.—The Department of Health provides prepaid medical and public ward hospital care to almost 50 p.c. of the population through its Cottage Hospital Plan; free medical and hospital care to indigents wherever facilities are available; and, under a program introduced in 1957, free public ward hospital care and out-patient diagnostic services for all children under 16 years of age. It operates a large general hospital at St. John's as well as 18 cottage hospitals and seven nursing stations distributed along the coastline, and also pays private physicians and non-governmental hospitals for the care of patients covered by the three public programs. In northern areas, responsibility for service has been delegated to the International Grenfell Association and the Notre Dame Bay Memorial Hospital Association, where community prepayment plans have been integrated into the Cottage Hospital Plan.

The Cottage Hospital Plan is financed from local subscription fees and general provincial revenues. In most areas, prepayment of \$15 annually by the head of each family and \$7.50 for single adults entitles subscribers to out-patient diagnosis and treatment, home visits by the doctor, and hospital care in the local hospital or the St. John's General Hospital. Each hospital is directed by a medical health officer responsible for domiciliary care in a medical practice area adjoining the hospital, while additional medical health officers and nurses supply care in outlying districts.

Mental Health.—Mental Health services are centred at the Hospital for Mental and Nervous Diseases in St. John's which operates in-patient and out-patient services, a day-care centre and consultant and educational services. All treatment is free of charge.

Tuberculosis.—With tuberculosis incidence above the national average, tuberculosis control has been of particular importance in Newfoundland. Two provincial sanatoria, as well as tuberculosis units in two other hospitals, provide free treatment for all cases of pulmonary tuberculosis. Preventive, case-finding and follow-up services are handled by the Tuberculosis Dispensary at St. John's and the West Coast Sanatorium in Corner Brook. The Newfoundland Tuberculosis Association participates in mass X-ray surveys, B.C.G. vaccinations, and rehabilitation services. Tuberculosis control activities have contributed to such reductions in tuberculosis hospitalization rates that early in 1957 a part of the St. John's sanatorium was converted into much needed accommodation for mental patients.

Cancer.—Special diagnostic and treatment services for cancer are located at the St. John's General Hospital, and treatment is subsidized by the Province.

Poliomyelitis.—Special diagnostic and treatment services for poliomyelitis are located at the St. John's General Hospital, and treatment is subsidized by the Province.

Venereal Disease.—Provincially administered venereal disease clinics are operated at St. John's and at various cottage hospitals throughout the Province; free treatment and drugs are available to persons attending the central clinic, to cottage hospital subscribers and to medical indigents.

Crippled Children.—Voluntary agencies assist in development of appropriate programs; one such agency, the Sunshine Camp Association, offers restorative services to physically impaired children.

Rehabilitation.—The Rehabilitation Branch, through the Co-ordinator of Rehabilitation, conducts case-finding surveys and arranges for counselling, training and job placement of disabled persons.

Prince Edward Island.—The Health Department supplies directly many of the services which in the larger provinces are provided by local health agencies. Most activities are carried out from the Health Centre at Charlottetown and a smaller office at Summerside, under the direction of the Deputy Minister, assisted by a full-time Health Officer.

General Public Health.—The Division of Public Health Nursing, through its staff of eleven public health nurses in various communities, is largely responsible for basic local services. Sanitary services, vital statistics, dental public health and health education are handled by separate health divisions; consultative child and maternal health services are provided. Laboratory procedures are performed by a central laboratory and seven hospitals; most tests are free of charge.

Hospital and Medical Care.—The Provincial Government pays grants of \$1 per patient day to general hospitals on behalf of all patients. Payment for the hospital or medical care of indigents is a discretionary responsibility of local government.

Mental Health.—Facilities for treatment of mental illness include the Riverside Hospital, the Provincial Infirmary largely for senile and mentally defective indigent patients, and an out-patient clinic for adults and children. Charges are made for maintenance if able to pay and the Province pays the remainder.

Tuberculosis.—Tuberculosis control includes case-finding and diagnostic clinics, treatment and rehabilitation services, conducted by the Province in co-operation with the Prince Edward Island Tuberculosis League. Diagnostic services are free. Treatment services at the Provincial Sanatorium in Charlottetown, though not unqualifiedly free, are heavily subsidized by the Province. Medically indigent patients receive free treatment.

Cancer.—Free diagnostic services, including hospitalization for diagnosis, are available to cancer patients through two clinics administered by the Division of Cancer Control.

Poliomyelitis.—Poliomyelitis treatment is provided at an orthopaedic centre located at the Provincial Sanatorium; the Health Department pays one-half of the cost of hospital and special nursing care during the acute stage of the disease and supplies free treatment to patients with residual paralysis.

Venereal Disease.—A venereal disease clinic operates in Charlottetown as a part of the provincial venereal disease control program.

Dental.—Free dental treatment at mobile clinics is available for Grade I and II children in rural areas. Preventive clinics operate for the topical application of sodium fluoride to pre-school and school children.

Rehabilitation.—General training of disabled persons is the responsibility of the Rehabilitation Co-ordinator in the Department of Education. Tuberculosis patients receive rehabilitation services with the aid of the Prince Edward Island Tuberculosis League.

Nova Scotia.—Most services provided by the Department of Public Health are administered through eight divisional or district offices. The Department of Public Welfare also administers certain services, notably those for mentally deficient children. Major provincial facilities include the Victoria General Hospital, the Nova Scotia Hospital for the mentally ill and three tuberculosis sanatoria.

General Public Health.—Most preventive services are carried out through the eight local divisional offices, which are staffed with public health nurses and sanitary inspectors under the supervision of a full-time medical health officer. Provincial laboratory services are organized through the Division of Public Health Laboratories which operates two branch laboratories and a central public health laboratory; the Division of Pathology which does tissue pathological examinations and related tests; and the Biochemistry Laboratories Division. All public health and histopathology procedures are supplied without charge. The Division of Laboratory and Radiological Services, under a part-time director, co-ordinates public health and hospital laboratory and radiological services.

Hospital and Medical Care.—The provincial Health Department meets the operating deficit of the Victoria General Hospital, and pays approved hospitals a grant of 50 cents a day on behalf of all patients; municipalities are required to pay up to \$9 a day for hospitalization of resident indigents. The Department of Welfare supervises a program of medical services, including physician's care in the home and office, for recipients of blind persons' allowances and mothers' allowances under a scheme sponsored by the Nova Scotia Medical Society and financed by per capita payments from the Province.

Mental Health.—Organized hospital services for the mentally ill include the Nova Scotia Hospital for active treatment, operated by the provincial Health Department; the psychiatric unit and out-patient department of the Victoria General Hospital; the Nova Scotia Training School for mentally deficient children, administered by the provincial Welfare Department; and 17 county homes and hospitals, operated by local government agencies, which mainly provide custodial care for long-term patients. Psychiatric clinics, maintained largely by the Health Department, are located at Halifax, Wolfville, Yarmouth and Digby. Treatment is free at the Nova Scotia Hospital, but in the other institutions relatives may be charged for the patient's maintenance. Resident indigents are supported by their municipalities.

Tuberculosis.—Free treatment is provided, mainly in the three provincial sanatoria and the municipal sanatorium at Halifax. Several tuberculosis units in general hospitals have now been discontinued. Divisional medical officers are responsible for detection, case-finding and follow-up of tuberculosis cases in their districts.

Cancer.—A clinic with radiation treatment facilities is included in the service provided by the provincial Victoria General Hospital.

Poliomyelitis.—A treatment clinic for poliomyelitis is included in the service provided by the provincial Victoria General Hospital. Branch poliomyelitis clinics have been established at Sydney, Antigonish and Yarmouth.

Venereal Disease.—Venereal disease detection services are provided mainly through the eight local health districts. Treatment is free of charge through the provincial venereal disease clinic in Halifax, or through private physicians reimbursed by the Province.

Dental.—Mobile dental clinics are operated by the Division of Dental Services to provide free treatment to rural school children under 13 years of age.

Rehabilitation.—Nova Scotia rehabilitation services to the disabled are the result of co-operative effort on the part of various voluntary agencies, professional groups and government departments, with general assistance from a Rehabilitation Co-ordinator appointed to the Department of Public Health. Among the most recent developments were the formation of the Nova Scotia Council for the Rehabilitation of Disabled Persons and the opening in 1956 of a civilian rehabilitation centre for both adults and children in Halifax. The Health Department and the Nova Scotia Tuberculosis Association combine in attending to the specific rehabilitation problems of tuberculosis patients.

New Brunswick.—Services are provided through the Health Branch of the Department of Health and Social Services which includes Divisions of Sanitary Engineering, Public Health Nursing, Communicable Disease Control, Maternal and Child Health, Health Education, Hospital Services and Laboratories. There is a high degree of provincial participation in the supplying of service and close working relationships with voluntary health agencies and hospitals.

General Public Health.—Although responsibility for local public health functions is divided between the Province and 15 local sub-health district boards of health, the provincial Health Department employs all six full-time medical health officers and nearly all public health nurses. Each medical health officer serves from two to four sub-health districts; the activities of most local boards are confined to vital statistics and environmental sanitation. The Bureau of Laboratories administers a central laboratory in Saint John and two branch laboratories in Moncton and Fredericton, designed to integrate public health and hospital laboratory services. Public health procedures, RH factor investigations and tumour diagnosis are performed free of charge but hospitals are charged for other procedures at cost.

Hospital and Medical Care.—The Province pays grants of 50 cents a day to approved general hospitals on behalf of all patients. Hospital and medical care for indigents is a matter of municipal discretion, but emergency admissions are a mandatory responsibility. Inspection of hospitals, hospital grants and the over-all planning of hospital facilities are directed by the Division of Hospital Services.

Mental Health.—All municipalities in the Province are responsible for paying a portion of the cost of treating indigent mental patients in provincial mental hospitals. The provincial Mental Health Division administers two mental hospitals and three community clinics as part of a comprehensive program which includes operation of a day training school for mentally retarded children. The provincial division of the Canadian Mental Health Association co-operates with provincial authorities in an active mental health education program.

Tuberculosis.—Free diagnostic services are provided in ten centres, including a central clinic in Saint John, by the Division of Tuberculosis Control. It also supervises and provides free treatment for both pulmonary and non-pulmonary tuberculosis in two privately operated, one municipal, and two provincially owned sanatoria.

Cancer.—Six cancer diagnostic centres and four treatment centres operate under the supervision of the provincial Director of Cancer Control. Diagnostic and radiation treatment services, including hospitalization, are made available without charge to the patient.

Poliomyelitis.—Acute and post-paralytic cases of poliomyelitis receive free care at the provincial Polio Clinic and Health Centre at Fredericton.

Venereal Disease.—The Division of Communicable Disease Control co-ordinates all infectious diseases and measures and administers a program of free treatment for venereal disease patients carried out at a clinic in Saint John and by private physicians.

Crippled Children.—Diagnostic and treatment services are provided free of charge for physically impaired children of indigent parents.

Dental.—Preventive dental health services for children are in course of development through the Dental Health Division.

Rehabilitation.—Rehabilitation efforts in New Brunswick have been stimulated by the appointment of a Rehabilitation Co-ordinator. Arrangements have been made to obtain specialized medical and vocational training services for needy disabled patients. Rehabilitation counselling and job placement are also in this new program. Tuberculosis patients receive rehabilitation aid from a program operated by the New Brunswick Tuberculosis Association.

Quebec.—The Provincial Ministry of Health plays a leading role in preventive public health services in Quebec though other activities are delegated to voluntary religious and lay organizations to a greater extent than in most other provinces.

General Public Health.—Except in Montreal and some other larger urban centres, full-time local public health services are administered directly by the provincial Health Department. The Division of Health Units supplies service through 70 county and multi-county units covering more than 60 p.c. of the population. Each unit is financed through a small local contribution and the remainder is provided by the Province. Technical direction and advice is available through the provincial divisions of Epidemiology, Tuberculosis, Nutrition, Demography, Health Education, Venereal Diseases, Sanitary Engineering and Industrial Hygiene. Laboratory services, including bacteriological and other analyses, are available to physicians and health units through the central public health laboratory in Montreal.

Hospital and Medical Care.—Free medical and hospital care are available to indigents from a variety of dispensaries, clinics and other charitable agencies. Under the provisions of the Public Charities Act, public hospital care and care in special institutions is provided free to persons certified as unable to pay their own costs. The agency supplying the service absorbs one-third of the indigent rate; the municipality of residence assumes 15 p.c. if rural and 24 p.c. if urban; the Province pays the remainder. The provincial Division of Medical Services to Settlers provides free nursing and physician's services to residents of isolated areas.

Mental Health.—Sixteen mental institutions and more than 25 clinics and psychiatric units are operated mainly by voluntary lay and religious organizations. Considerable responsibility rests with Laval, Montreal and McGill Universities, which co-operate with mental hospital authorities and co-ordinate community out-patient and in-patient services. The provincial Division of Psychiatric Hospitals administers an institution for mentally

ill prisoners, appoints superintendents to the various mental hospitals and exercises supervisory and regulatory functions. Patients who can afford to pay contribute part of the cost of maintenance, all other costs are paid by the Province.

Tuberculosis.—All sanatoria are operated by lay or religious groups under medical directors appointed by the Health Department; the cost of treating medical indigents is borne by the Province. The provincial Tuberculosis Division co-ordinates the work of the health units, voluntary agencies and sanatoria and gives assistance to municipal agencies carrying out anti-tuberculosis work.

Cancer.—Cancer services are centred mainly in hospitals affiliated with the three universities; financial assistance for diagnosis, treatment and hospital care comes from federal-provincial grants.

Poliomyelitis.—Treatment facilities are maintained by voluntary organizations.

Venereal Disease.—The provincial Venereal Diseases Division subsidizes free treatment administered by the out-patient departments of general hospitals, and supervises preventive and case-finding measures.

Crippled Children.—Treatment facilities for crippling conditions in children are maintained by voluntary organizations.

Rehabilitation.—Medical Rehabilitation facilities have been developed in a number of teaching and general hospitals and comprehensive services organized in four specialized rehabilitation centres—the Rehabilitation Institute of Montreal, the Occupational Therapy and Rehabilitation Centre in Montreal, the Quebec Rehabilitation Clinic in Quebec City, and the Rehabilitation Clinic operated by the Quebec Workmen's Compensation Board. The Department of Health and the Department of Social Welfare and Youth give grants to numerous organizations offering medical, educational and vocational services to groups of disabled persons.

Other Services.—Treatment facilities for arthritis and other diseases are maintained by voluntary organizations.

Ontario.—Public health responsibility has been decentralized in Ontario to a large number of locally administered health units and municipal health departments. The provincial Department of Health assists with auxiliary services, technical advice and grants-in-aid. Voluntary agencies administer certain programs for specific diseases, under sponsorship of the health department, while other special programs have been developed directly by the Province.

General Public Health.—Full-time local health services are available to more than 70 p.c. of the population through 29 health units, and 13 municipal departments. Provincial grants to health units, varying from 25 to 50 p.c. of the cost, are administered by the Health Units Branch of the Department. Specialized provincial Divisions provide consultative services in sanitary engineering, maternal and child hygiene, epidemiology, public health nursing, tuberculosis prevention, mental health, industrial health, venereal disease control and dental health. The Division of Laboratories provides public health and clinical laboratory services through a central laboratory in Toronto, 13 regional laboratories, five associated laboratories and a mobile unit. The Division of Industrial Hygiene investigates occupational health hazards, operates a laboratory and administers the civil service health centres.

Hospital and Medical Care.—General hospital care for indigents is a statutory municipal responsibility with minimum per diem rates fixed by the Province; additional assistance comes from provincial per diem maintenance and special grants paid to all public hospitals. In 1956, the Hospital Service Commission of Ontario was set up to plan hospital developments in the Province and to administer the proposed system of hospital care insurance

to be initiated. Certain medical services are available to recipients of all types of public assistance through a formal arrangement between the Province and the Ontario Medical Association. The program includes the services of a physician in his office or the patient's home, necessary consultations, home confinements, emergency drugs and refractions. Monthly per capita payments by the Department of Public Welfare to the Medical Association for these services are administered by a special agency, "The Medical Welfare Plan".

Mental Health.—Fifteen mental hospitals and two training schools for mentally defective persons are administered by the Division of Mental Health. Travelling clinics and out-patient departments are operated by some provincial hospitals but most community and child guidance centres are the responsibility of local health departments or voluntary groups. Extensive grants are available for construction of psychiatric units in general hospitals. The Province pays for most of the cost of care in mental hospitals.

Tuberculosis.—All measures for the prevention and treatment of tuberculosis are the general responsibility of the Division of Tuberculosis Prevention. Local voluntary associations support provincially conducted X-ray surveys and chest clinics and operate 13 of the Province's 15 tuberculosis sanatoria. The Ontario Tuberculosis Association co-ordinates the work of the member agencies. Tuberculosis treatment is virtually free for most patients, although patients with means may contribute to maintenance.

Cancer.—Cancer services are provided through the Ontario Cancer Treatment and Research Foundation which administers or finances eight regional treatment centres and two diagnostic clinics; the program includes free radiotherapy for patients with insufficient means. Affiliated with the Foundation is the newly established Ontario Cancer Institute in Toronto, a hospital centre designed exclusively for cancer diagnosis, treatment and advanced research.

Poliomyelitis.—The Province pays most of the costs of hospital care of poliomyelitis patients during the post-paralytic phase, as well as costs of physiotherapy and nursing in specially designated hospitals.

Venereal Disease.—Venereal disease control is to a considerable extent decentralized through the municipal health departments and local health units; the central Division of Venereal Disease Control subsidizes eleven clinics for free diagnosis and treatment.

Crippled Children.—The Ontario Society for Crippled Children operates diagnostic clinics, treatment units, summer camps and other services.

Dental.—The Division of Dental Services administers grants for school treatment services and operates mobile dental clinics.

Rehabilitation.—Rehabilitation services for adults are provided through various voluntary organizations and government agencies. One of the best known facilities is the Medical Rehabilitation Centre for injured workmen, administered by the Ontario Workmen's Compensation Board. The Province has a rehabilitation program for handicapped persons not covered by other legislation. The 1955 Rehabilitation Services Act authorizes the purchase of approved rehabilitation services that may enable a handicapped person to engage in remunerative employment.

Manitoba.—Provincial health services in Manitoba are provided through divisions of health services and psychiatric services in the Department of Health and Public Welfare, and through several quasi-governmental and voluntary agencies. Public health and personal health care services have been developed in close co-operation with local authorities under the Health Services Act which authorizes preventive medical services through local health units, diagnostic services through laboratory and X-ray units, and the establishment of medical care and organized hospital districts.

General Public Health.—Full-time local public health services are available to 72 p.c. of Manitoba's population through the City of Winnipeg Health Department and 13 local health units jointly administered and financed by provincial and local governments. Each health unit has an advisory board, and the municipalities are responsible for one-third of the cost. The provincial Health Department employs and pays the staff, and co-ordinates field supervision through its Bureau of Local Health Services. Five local laboratory and X-ray units, with facilities centred in community hospitals, make modern diagnostic aids available to rural medical practitioners and reduce the direct cost to the patient. Services are offered on a prepayment basis, with personnel appointed and two-thirds of the cost paid by the provincial Health Department through its Bureau of Laboratory and X-ray Services. The provincial Section of Laboratory Services undertakes free public health procedures through one central and two branch laboratories.

Hospital and Medical Care.—Through the Bureau of Medical Care, groups of towns, villages and municipalities are encouraged to establish prepaid medical care by the employment of municipal doctors; there are 14 districts. The Bureau of Hospitalization is concerned with the over-all planning of hospital facilities, and the administration of provincial responsibilities under the Hospital Aid Act. The Province pays 40 p.c. of the cost of in-patient and out-patient hospital care for municipal indigents, with rates of payment for each hospital fixed by the provincial Hospital Rate Board. The municipalities are required to pay the remainder of hospital care costs but indigent medical care is a discretionary municipal responsibility.

Mental Health.—Provincial mental institutions are operated at Winnipeg, Selkirk and Brandon and a school for the mentally defective at Portage la Prairie. Community mental health services include out-patient services at mental hospitals and child guidance clinics. The mental institutions collect maintenance costs from patients who can afford them; the Province pays the remainder.

Tuberculosis.—Tuberculosis control is administered by the Sanatorium Board of Manitoba which operates four sanatoria (three of which are federally owned for Indian services) and several stationary and mobile chest clinics. Costs of diagnostic and treatment services for pulmonary and non-pulmonary tuberculosis are paid from public funds. The Province maintains a tuberculosis central registry and a follow-up service for discharged patients.

Cancer.—The Manitoba Cancer Treatment and Research Foundation, subsidized by the Province, administers cancer activities, including diagnosis, treatment, follow-up and statistical services. A free rural cancer biopsy service is in operation; in addition, diagnostic services are available without charge to medically indigent rural residents. Radium and X-ray treatments are free of charge to all residents of the Province.

Poliomyelitis.—The treatment program for poliomyelitis patients, administered by the Bureau of Epidemiology, provides free public ward care for the first 21 days following admission to hospital, and additional free hospitalization following the 60th day after admission until discharge.

Venereal Disease.—The Bureau of Venereal Disease Control operates a free treatment clinic in Greater Winnipeg and pays physicians for treatment of patients in other parts of the Province who are unable to pay.

Rehabilitation.—The Society for Crippled Children and Adults acts as a central rehabilitation agency for adults and children. Its program includes disability assessment clinics, purchase of treatment services and prosthetic appliances, guidance training and follow-up services. Rehabilitation services for tuberculosis patients are administered by the Sanatorium Board. The provincial co-ordinator of rehabilitation, employed by the Department of Health and Public Welfare, exercises general supervision over the program, screens applicants for rehabilitation services, and operates a central registry of disabled persons. Over-all planning is the function of the Rehabilitation Commission, an advisory body representing the numerous groups concerned with the problem.

Saskatchewan.—Saskatchewan has emphasized development of personal health care services and the integration of public health and medical care for a dispersed rural population. Some programs are decentralized through health regions, medical care districts and hospital districts; most others are centrally administered by the Department of Public Health and several special agencies.

General Public Health.—Full-time community public health services are provided to 65 p.c. of the population through nine health regions, the Northern Administration Health District, and city health departments in Regina and Saskatoon; elsewhere provincial staff supply partial services. Administrative authority in the health regions is vested in regional boards, but public health staff are appointed by the Province; under joint financing arrangements the provincial Health Department pays two-thirds of public health costs in most regions.

The provincial Regional Health Services Branch has the dual function of co-ordinating policies and services within health regions, and supervising the activities of the technical divisions including Sanitation, Nursing Services, Communicable Disease Control, Venereal Disease Control, Nutrition, Child Health and Dental Health. The Provincial Laboratories supply free public health tests through the central laboratory in Regina and operate a mail order clinical testing service for physicians and small hospitals in rural areas.

Hospital and Medical Care.—Under the Saskatchewan Hospital Services Plan, which is a universal compulsory hospital insurance scheme, residents are eligible for in-patient public ward care through the annual prepayment of a personal tax of \$20 by all persons 18 years of age or over, and of \$5 for each dependant under 18 years of age, with a maximum family tax of \$45. Additional funds are provided, from general revenue as needed, including part of the proceeds of a 3 p.c. sales tax. The Medical and Hospital Services Branch is responsible for the operation of the Hospital Service Plan, supervises the operations of the municipal doctor programs and the Air Ambulance Service. It administers a program of health care services to public assistance recipients and their dependants.

The Medical Services Division administers a broad range of medical, dental and optical services and provides drugs (subject to deterrent charges) for public assistance recipients through arrangements with the health professions. Persons and their dependants receiving blindness or mothers' allowances, provincial supplementary allowances to the universal old age pension, certain social aid cases and provincial wards are eligible. The Province pays the full cost and, for most of the eligible cases, the hospital insurance tax as well.

At the local level, municipal doctor plans in about 160 municipalities supply a varying range of medical care benefits to about 170,000 persons, while another 50,000 are covered by the Swift Current Health Region prepaid medical care plan which includes general practitioners and specialist services and dental care for children under 12 years of age. Services are financed by personal and property taxes plus provincial grants.

Mental Health.—The Psychiatric Services Branch operates two mental hospitals, a psychiatric unit in a general hospital and a training school for mentally deficient persons; in addition it administers all community psychiatric services, including three full-time and seven part-time clinics. Free care is given for all mentally ill and mentally defective persons requiring hospitalization.

Tuberculosis.—The tuberculosis control program, operated by the Saskatchewan Anti-Tuberculosis League, includes preventive and case-finding services financed mainly by voluntary subscriptions, and free treatment for both pulmonary and non-pulmonary cases, financed by provincial per diem grants and municipal levies. The League operates three sanatoria as well as mobile and stationary clinics.

Cancer.—The Saskatchewan Cancer Commission co-ordinates all cancer control measures and maintains cancer clinics at Saskatoon and Regina providing free diagnosis and therapy, including surgery.

Venereal Disease.—Four clinics offering free diagnosis and treatment are maintained by the Venereal Disease Control Division.

Dental.—Two health regions operate curative dental programs, employing full-time dentists, and four regions were served by dental hygienists on regional staff.

Rehabilitation.—The Physical Restoration Division is developing medical rehabilitation services for disabled adults and children. Free treatment and rehabilitation services for poliomyelitis patients are provided through two in-patient treatment centres and two physical restoration centres; the latter two centres also serve cerebral palsy and other conditions. Auxiliary services such as transportation and field clinics are supported by the Saskatchewan Council for Crippled Children and Adults, while the Department of Public Welfare and Rehabilitation administers vocational rehabilitation and co-ordinates services.

Alberta.—Basic public health and hospital services are decentralized through local health units, municipal health departments, nursing districts and hospital districts. The Department of Public Health supervises and subsidizes local programs, and administers the various specialized preventive services, specific disease programs, and personal health care for selected groups.

General Public Health.—Eighteen full-time local health units and three full-time city health departments serve 89 p.c. of the population. Partial local services are provided through 29 municipal nursing districts, several provincial sanitary inspection areas and various municipal boards of health in rural areas outside health units.

Health units and municipal health departments are locally controlled but the Province pays 60 p.c. of the cost of approved services. The provincial Division of Local Health Services co-ordinates technical assistance from Sanitary Engineering, Communicable Diseases, Health Education, Nutrition, Vital Statistics and other divisions. Public health bacteriology and tissue pathology tests are available through the Provincial Laboratory; most tests are performed free of charge.

Hospital and Medical Care.—The Division of Hospital and Medical Services provides free hospitalization for maternity patients and administers a program of medical and hospital services for public assistance recipients; it shares with the municipalities in the costs of the Provincial-Municipal Hospital Plan.

Hospitalization, medical, dental, optical and special treatment services are supplied without charge to old age security recipients who qualify for supplementary pension, old age assistance pensioners, blind pensioners, recipients of mothers' allowance and widows' allowance as well as to the dependants of such persons. Medical and related services are provided by agreement with the Alberta College of Physicians and Surgeons and the Dental Association, while hospital care is paid through agreement with the Associated Hospitals of Alberta. The Department of Public Welfare pays 60 p.c. of the cost of medical and hospital care for local indigents through grants to municipalities.

Under provincial supervision the locally operated Provincial-Municipal Hospital Plan provides public ward care and special services to most of the province's population. Costs are distributed between the patient, the municipality and the provincial health department. The patient is charged \$1 a day for public ward care and up to \$1 a day for special services. The remainder of the basic ward rate and the special service rate established for each hospital by provincial regulation is paid by the municipality, which is then reimbursed by the Province for 60 p.c. of this expenditure, or alternatively 50 p.c. if the municipality participates only in the standard ward care program.

Mental Health.—Mental health facilities, administered by the Division of Mental Health, include five mental hospitals, a training school for mental defectives, and community and child guidance clinics. Provincial grants support the operation of two psychiatric units in general hospitals.

Tuberculosis.—Tuberculosis services are administered by the Division of Tuberculosis Control in co-operation with the Alberta Tuberculosis Association. The Division directs diagnostic services and administers two sanatoria; the entire cost of treatment for resident tubercular patients and out-patient pneumothorax is paid by the Province. Mass X-ray surveys and rehabilitation work are functions of the voluntary association.

Cancer.—The Cancer Services Division operates three clinics; on the recommendation of a clinic, surgical, X-ray, radium treatment and hospitalization for diagnostic purposes are provided free of charge for qualified residents requiring such services.

Arthritis and Rheumatism.—For rheumatoid arthritic patients under 25 years of age, the Province bears the cost of hospital care for a period up to 90 days and the cost of medical treatment.

Poliomyelitis.—All residents suffering from poliomyelitis receive free medical, surgical and hospital care and rehabilitation.

Venereal Disease.—Free diagnostic, therapeutic and follow-up services are available for venereal disease cases through stationary and mobile clinics.

Crippled Children.—Two diagnostic and treatment clinics for cerebral palsy are maintained in Calgary and Edmonton; home care instruction is given. Supplementary services for children with other disabling conditions are arranged by voluntary groups.

Rehabilitation.—The co-ordination of rehabilitation services for adults is the responsibility of the Rehabilitation of Disabled Persons Branch in the Department of Public Welfare. Medical rehabilitation services are being developed in the larger general hospitals. A leading facility is the Rehabilitation Clinic for out-patients operated by the Workmen's Compensation Board. Rehabilitation services for alcoholics are offered by the Alcoholism Foundation of Alberta, financed largely by a provincial grant.

British Columbia.—Except for mental health, most health and welfare services in British Columbia are combined in the Department of Health and Welfare, which includes the Health Branch, the Welfare Branch and the Hospital Insurance Service. Various non-governmental agencies conduct health programs which are officially recognized by the Provincial Government. Mental health services are administered by the Department of the Provincial Secretary.

General Public Health.—Full-time local public health services are administered and financed jointly by provincial and local authorities through 16 health units, and by local authorities in the metropolitan areas of Vancouver and Victoria-Esquamalt. Excluding Indians, for whom services are provided by Federal authorities, over 99 p.c. of the Province's population receives public health service from these units. The Provincial Bureau of Social Health Services includes Divisions of Health Units, Public Health Nursing, Public Health Engineering, Environmental Management and Preventive Dentistry. Laboratory services are provided free of charge through the central public health laboratory in Vancouver and branch laboratories in Victoria and Nelson.

Hospital and Medical Care.—Public ward hospital care on a province-wide basis is provided at nominal cost to the patient through the British Columbia Hospital Insurance Service; costs are met from general revenue, provincial sales tax and payment of \$1 by the patient for each day of hospital care. Medical, surgical and optical services, prescribed drugs and limited dental services are provided by the Province to all persons (and their dependants) receiving the universal old age pension or who can qualify for the provincial

supplementary allowance, to recipients (including dependants) of blindness, mothers' or disability allowances or local relief, and to certain child wards. A subsidiary agency of the British Columbia Division, Canadian Medical Association, supplies medical and surgical services to the above categories in return for per capita payments by the Province. The Medical Services Division of the Welfare Branch pays medical premiums and administers and pays for drug, optical, dental and other services; the municipalities contribute 20 p.c. of the cost incurred by their residents. Hospital costs are met by the B.C. Hospital Insurance Service.

Mental Health.—Mental Health services are administered by the Department of the Provincial Secretary. The administrative units include the Essondale Mental Hospital, the Crease Clinic of Psychological Medicine, stationary and travelling child guidance clinics, an out-patient department and day hospital, a training school for mental defectives, the Geriatrics Division and Research Division. The Crease Clinic functions as an investigatory and active treatment centre for short-term patients. Those able to pay are expected to do so, but most of the operating costs of the mental health program are borne by the Province.

Tuberculosis.—Three sanatoria, and several stationary and mobile clinics are in operation. The Province bears most of the cost of treatment services, with some contribution from the municipalities, but patients are expected to pay according to their ability.

Cancer.—Provision for the treatment and control of cancer is the responsibility of the British Columbia Cancer Foundation which maintains treatment centres in Vancouver and Victoria, ten consultative clinics throughout the Province and a boarding home attached to the centre at Vancouver. The Foundation also provides free province-wide biopsy service. The Province subsidizes the Foundation.

Venereal Disease.—Venereal disease clinics offer free diagnosis and treatment.

Dental.—The Division of Preventive Dentistry has launched several programs for children, including grants to dentists in remote areas, to city school dental services and for the development of preventive services in health units. Child dental clinics with local dentists participating are established in more than 60 communities.

Rehabilitation.—Rehabilitation facilities, extensively developed by voluntary organizations for specific disabilities, are co-ordinated through the Health Branch. The G. F. Strong Rehabilitation Centre provides in-patient and out-patient services for severely disabled adults and children. A large out-patient centre is operated by the B.C. Workmen's Compensation Board.

Other Services.—The Province subsidizes agencies concerned with special problems such as the Alcoholism Foundation of British Columbia, the Canadian Arthritis and Rheumatism Society and the Canadian Red Cross Blood Transfusion Service.

The Yukon and Northwest Territories.—Health services in the Yukon and Northwest Territories are provided through a network of services by different government agencies, by the churches and, in some settled areas, by private practitioners. Services for the native population are maintained by the Directorate of Indian Health Services of the Department of National Health and Welfare, for the white population by the Yukon Territorial Government, the Northwest Territories Council, and the Department of Northern Affairs and National Resources, and for the Armed Forces by the Department of National Defence.

There are four general hospitals with a total capacity of 151 beds in the Yukon Territory—hospitals at Whitehorse and Mayo are operated by the Territorial Government; another at Whitehorse is operated by the Department of National Defence; and one at Dawson is operated by the Roman Catholic Church. Of the six private physicians in the Territory, three are employed on a part-time basis as medical health officers by the Territorial Government and one by the Directorate of Indian Health Services. There are three dentists in the Territory, one of whom does part-time work for Indian Health Services.

There are 11 hospitals and eight nursing stations in the Northwest Territories with a combined total of 648 beds, of which about 461 are used for tuberculosis patients. Six hospitals at Aklavik, Chesterfield Inlet, Fort Simpson, Fort Resolution, Fort Smith and Fort Rae are operated by the Roman Catholic Church; two hospitals at Aklavik and Pangnirtung and one nursing station at Hay River are operated by the Anglican Church. The Yellowknife Administrative District operates one hospital and two others are maintained by mining companies at Port Radium and Norman Wells. The Department's Indian Health Services maintains six nursing stations and the Pentecostal Church operates one at Hay River. There are 11 physicians in the territory, nine of whom are employed by Indian Health Services, together with eight public health nurses and two dentists of whom six and one respectively are employed by Indian Health Services.

In the Yukon Territory health services for the non-native population are administered through the Commissioner for the Yukon. The Territorial Government provides complete treatment including transportation for tuberculosis and poliomyelitis patients and hospital care for indigent residents. Grants are made to cover the operating deficits of the two general hospitals owned by the Territorial Government. Public health services provided include communicable disease control, public health nursing, sanitary inspection and tuberculosis case-finding. Technical advice on the public health program is given by a part-time Chief Medical Health Officer resident at Edmonton.

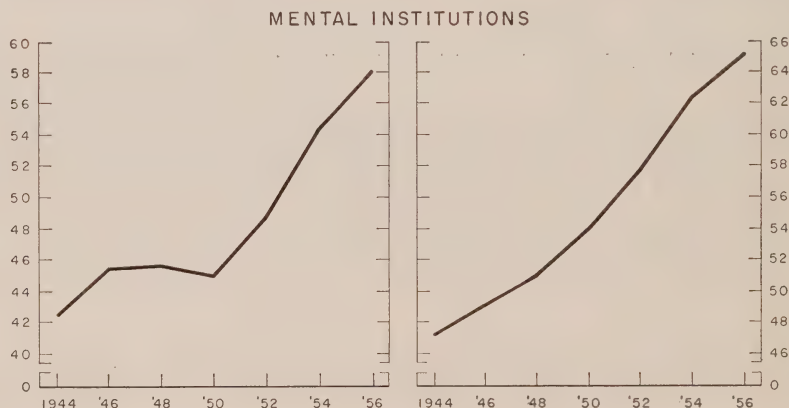
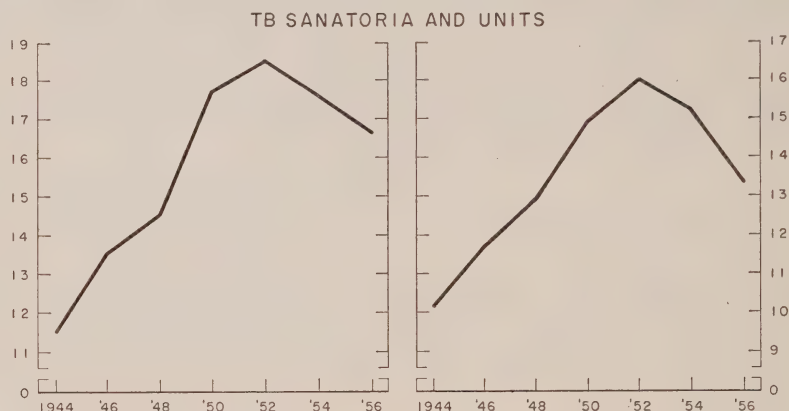
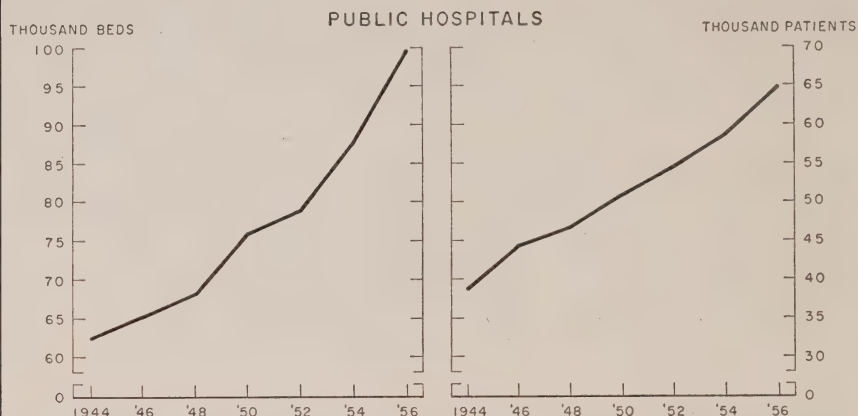
Health programs for the non-native population in the Northwest Territories provide free treatment including transportation for tuberculosis patients, free hospital care for the mentally ill, free treatment for venereal disease cases, and free cancer diagnosis including transportation to the Edmonton Clinic. Indigent residents are eligible for complete medical, dental and optical services as well as general hospital care. There is a special program of free dental services for children under 17 years of age. To support the mission hospitals the Territorial Government pays per diem grants on behalf of all paying patients. Public health services are largely handled by Indian Health Service personnel, the Director of Indian Health Services serving as Chief Medical Health Officer of the Northwest Territories.

Section 2.—Health Statistics

Statistical information on the health of Canadians is at present limited to the well established and highly standardized mortality, communicable disease and institutional statistics series, all of which have been available for a long period. As compared with these records, other national health statistics are still in an early development stage. So far the only source of information on general illness, health services and personal expenditure for health care is the Canadian Sickness Survey of 1950-51. Other projects deal with specific health problems or selected groups of the population and a good deal of statistical information is available from provincial and other health sources. A conference held in April 1957 with wide representation from governments and other interested agencies initiated machinery that will ensure the development of more adequate health statistics than now exist.

Statistics on causes of death are given in the Chapter on Vital Statistics, pp. 194-232; those on hospital statistics in Subsection 1 following; and those on notifiable diseases in Subsection 3. Subsection 2 deals with certain analyses of the Canadian Sickness Survey and Section 4 with a study of visiting nursing services.

BED CAPACITIES OF, AND PATIENTS IN, HEALTH INSTITUTIONS AT DEC. 31, 1944-56



Subsection 1.—Health Institutions*

The advent of hospital insurance, anticipated for 1959, increased the importance of information relative to the amount of hospital care available in Canada. It is generally assumed that the insurance scheme will increase the amount of care demanded by the public, although the extent of the increase cannot be closely estimated. A fact that should be remembered in considering bed requirements is that a hospital cannot operate effectively with 100 p.c. of its standard capacity fully occupied; an occupancy of 80 p.c. is generally considered the optimum. Thus the addition of 1,000 beds could not be counted on to provide an additional 365,000 days of care per year, but only about 292,000.

At mid-1957, data for 1956 were still outstanding for many hospitals, and consequently over-all information was available only up to the end of 1955. At that point there were 1,360 hospitals known to be in operation in the country, and they had 170,639 beds (not including bassinets for newborn infants). Of this total, 142 hospitals were known to exist but did not submit reports. The remaining 1,218 hospitals, with 167,786 beds, provided at least partial statistical returns which are included in the tables of this Subsection. The capacity of the hospitals which did not report is estimated to be less than 2 p.c. of the total.

Two methods of hospital classification† have been employed in the tabular data. One is based on admission policy and is threefold (public, which admit any patient; private, which admit only paying patients; and federal, which treat special groups). Another axis is type of service provided by the hospital which is fourfold (general, treating a wide range of conditions; special, treating particular conditions such as chronic disease or orthopaedics; mental; and tuberculosis). The last two are kept separate because of their large size and their distinctive characteristics.

Both methods of classification are combined in Table 2 and shown by province. Public general hospitals are the most numerous single group, accounting in 1955 for over half the total number of hospitals in each province except Quebec. The number of beds in such hospitals constituted a majority of the over-all total in Newfoundland, Prince Edward Island, Saskatchewan, Alberta and the Territories, and they were the largest single group in every province except Quebec where there were a few more beds in public mental hospitals. As might be expected, the rank of the provinces in terms of population is the same as their rank in numbers of hospital beds, although not as their rank in numbers of hospitals. Saskatchewan, although fifth in number of population, was second to Ontario in number of public general hospitals.

* Prepared in the Institutions Section of the Health and Welfare Division, Dominion Bureau of Statistics.

† The definitions in this paragraph are abridged from those officially in use. More detailed information is given in DBS publications: *Hospital Statistics 1955*, Vols. I and II; *Mental Health Statistics 1956* and *Financial Supplement*; *Tuberculosis Statistics 1956* and *Financial Supplement*.

2.—Hospitals Reporting and Bed Capacity (excluding Bassinets) classified by Type of Hospital and Type of Service, by Province 1955

| Province and Type | General | | Special | | Mental | | Tuberculosis | | All Hospitals | |
|-------------------------------|-----------|--------------|----------|------------|-----------|--------------|--------------|------------|---------------|--------------|
| | No. | Beds | No. | Beds | No. | Beds | No. | Beds | No. | Beds |
| Newfoundland..... | 27 | 1,630 | 2 | 124 | 1 | 650 | 2 | 610 | 32 | 3,014 |
| Public..... | 27 | 1,630 | 2 | 124 | 1 | 650 | 2 | 610 | 32 | 3,014 |
| Private..... | — | — | — | — | — | — | — | — | — | — |
| Federal..... | — | — | — | — | — | — | — | — | — | — |
| Prince Edward Island.. | 7 | 629 | — | — | 1 | 300 | 1 | 120 | 9 | 1,049 |
| Public..... | 7 | 629 | — | — | 1 | 300 | 1 | 120 | 9 | 1,049 |
| Private..... | — | — | — | — | — | — | — | — | — | — |
| Federal..... | — | — | — | — | — | — | — | — | — | — |
| Nova Scotia..... | 49 | 4,310 | 4 | 122 | 17 | 2,973 | 5 | 900 | 75 | 8,305 |
| Public..... | 43 | 3,436 | 3 | 115 | 17 | 2,973 | 4 | 879 | 67 | 7,403 |
| Private..... | — | — | — | — | — | — | 1 | 21 | 1 | 21 |
| Federal..... | 6 | 874 | 1 | 7 | — | — | — | — | 7 | 881 |

2.—Hospitals Reporting and Bed Capacity (excluding Bassinets) classified by Type of Hospital and Type of Service, by Province 1955—concluded

| Province and Type | General | | Special | | Mental | | Tuberculosis | | All Hospitals | |
|--|---------|--------|---------|--------|--------|--------|--------------|--------|---------------|---------|
| | No. | Beds | No. | Beds | No. | Beds | No. | Beds | No. | Beds |
| New Brunswick | 34 | 2,730 | 5 | 203 | 2 | 1,135 | 5 | 858 | 46 | 4,926 |
| Public..... | 31 | 2,190 | 3 | 184 | 2 | 1,135 | 5 | 858 | 41 | 4,367 |
| Private..... | 1 | 11 | — | — | — | — | — | — | 1 | 11 |
| Federal..... | 2 | 529 | 2 | 19 | — | — | — | — | 4 | 548 |
| Quebec | 116 | 19,182 | 73 | 5,660 | 13 | 16,770 | 17 | 4,433 | 219 | 46,045 |
| Public..... | 93 | 16,191 | 23 | 4,921 | 12 | 16,689 | 16 | 4,233 | 144 | 42,034 |
| Private..... | 19 | 376 | 49 | 732 | 1 | 81 | — | — | 69 | 1,189 |
| Federal..... | 4 | 2,615 | 1 | 7 | — | — | 1 | 200 | 6 | 2,822 |
| Ontario | 191 | 27,476 | 43 | 4,252 | 19 | 17,192 | 15 | 4,272 | 268 | 53,192 |
| Public..... | 172 | 23,453 | 25 | 3,612 | 17 | 16,912 | 15 | 4,272 | 229 | 48,249 |
| Private..... | 11 | 324 | 16 | 325 | 2 | 280 | — | — | 29 | 929 |
| Federal..... | 8 | 3,699 | 2 | 315 | — | — | — | — | 10 | 4,014 |
| Manitoba | 82 | 4,918 | 6 | 883 | 4 | 3,152 | 6 | 1,053 | 98 | 10,006 |
| Public..... | 71 | 4,017 | 4 | 753 | 4 | 3,152 | 3 | 623 | 82 | 8,545 |
| Private..... | 6 | 90 | 2 | 130 | — | — | — | — | 8 | 220 |
| Federal..... | 5 | 811 | — | — | — | — | 3 | 430 | 8 | 1,241 |
| Saskatchewan | 151 | 5,935 | 10 | 154 | 3 | 3,435 | 3 | 803 | 167 | 10,327 |
| Public..... | 145 | 5,638 | 5 | 12 | 3 | 3,435 | 3 | 803 | 156 | 9,888 |
| Private..... | 3 | 5 | 3 | 12 | — | — | — | — | 6 | 17 |
| Federal..... | 3 | 292 | 2 | 130 | — | — | — | — | 5 | 422 |
| Alberta | 103 | 7,845 | 7 | 308 | 6 | 4,229 | 2 | 600 | 118 | 12,952 |
| Public..... | 93 | 6,649 | 4 | 219 | — | 4,229 | 2 | 600 | 105 | 11,697 |
| Private..... | 5 | 105 | 2 | 19 | — | — | — | — | 7 | 124 |
| Federal..... | 5 | 1,091 | 1 | 70 | — | — | — | — | 6 | 1,161 |
| British Columbia | 99 | 8,790 | 59 | 2,204 | 8 | 4,922 | 7 | 1,313 | 173 | 17,229 |
| Public..... | 88 | 7,176 | 8 | 691 | 7 | 4,852 | 4 | 737 | 107 | 13,456 |
| Private..... | 8 | 135 | 48 | 1,240 | 1 | 70 | — | — | 57 | 1,445 |
| Federal..... | 3 | 1,479 | 3 | 273 | — | — | 3 | 576 | 9 | 2,328 |
| Yukon and Northwest Territories | 13 | 711 | — | — | — | — | — | — | 13 | 711 |
| Public..... | 11 | 690 | — | — | — | — | — | — | 11 | 690 |
| Private..... | 2 | 21 | — | — | — | — | — | — | 2 | 21 |
| Federal..... | — | — | — | — | — | — | — | — | — | — |
| Canada | 872 | 84,156 | 209 | 13,910 | 74 | 54,758 | 63 | 14,962 | 1,218 | 167,786 |
| Public..... | 781 | 71,699 | 77 | 10,631 | 70 | 54,327 | 55 | 13,735 | 983 | 150,392 |
| Private..... | 55 | 1,067 | 120 | 2,458 | 4 | 431 | 1 | 21 | 180 | 3,977 |
| Federal..... | 36 | 11,390 | 12 | 821 | — | — | 7 | 1,206 | 55 | 13,417 |

Public and Private Hospitals.—Table 3 shows that substantial increases in the amount of space available and the amount of care provided in public general and special hospitals occurred over the 1951-55 period. In 1955 there were 858 reporting hospitals—80 more than in 1951, and they had six beds for every five at the beginning of the period. They provided an in-patient bed at some time during 1955 for four out of every 25 Canadians, and gave an average one and two-thirds days of care during the year to every man, woman, child and infant in Canada. No comparable rise occurred in private hospitals.

Table 4 presents data for 1955 on movement of patients and personnel (at the end of 1955 one in every 47 Canadians with a job was employed in a public general or special hospital). Table 5 gives a brief résumé of public hospital finances (gross expenditure amounted to \$20.57 per capita for the year—almost \$330,000,000). Cost per patient-day ranged from \$14.26 in British Columbia and \$12.95 in Ontario to \$11.30 in Newfoundland and \$9.32 in the Territories.

3.—Summary Statistics of Reporting Public and Private General and Special Hospitals 1951-55

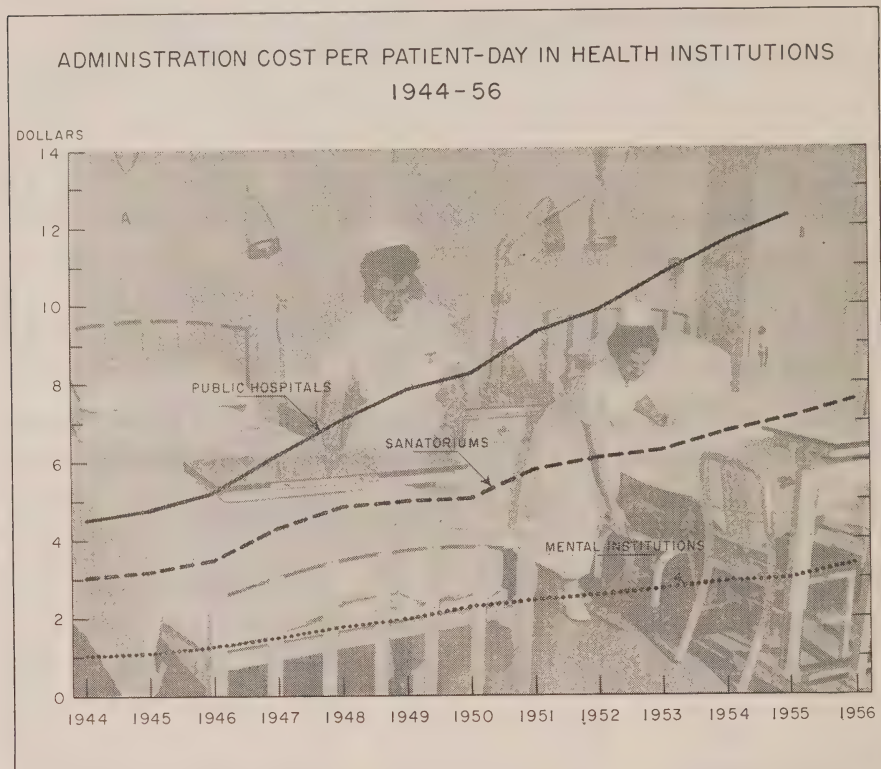
| Item | 1951 | 1952 | 1953 | 1954 | 1955 |
|---|------------|------------|------------|------------|------------|
| | No. | No. | No. | No. | No. |
| Public General and Special— | | | | | |
| Hospitals reporting..... | 778 | 777 | 810 | 817 | 858 |
| Bed capacity ¹ | 79,339 | 78,666 | 81,752 | 87,401 | 95,431 |
| Patients under care ² | 2,012,773 | 2,107,880 | 2,226,293 | 2,309,391 | 2,509,847 |
| Patient-days during year ² | 21,920,099 | 22,531,887 | 23,075,013 | 24,278,433 | 26,047,445 |
| Private General and Special— | | | | | |
| Hospitals reporting..... | 220 | 187 | 143 | 169 | 175 |
| Bed capacity ¹ | 4,638 | 3,884 | 3,271 | 3,977 | 4,231 |
| Patients under care ² | 67,486 | 60,432 | 50,107 | 62,968 | 66,096 |
| Patient-days during year ² | 1,076,207 | 992,425 | 853,324 | 996,097 | 1,014,898 |

¹ Includes bassinets.² Includes newborn.

4.—Movement of Patients and Number of Personnel of Reporting Public Hospitals by Province 1955

| Item | Newfoundland | Prince Edward Island | Nova Scotia | New Brunswick | Quebec | Ontario |
|--|--------------|----------------------|--------------|------------------|------------------|----------------|
| | No. | No. | No. | No. | No. | No. |
| Hospitals reporting..... | 29 | 7 | 46 | 34 | 116 | 197 |
| Movement of Patients—¹ | | | | | | |
| Admissions..... | 43,091 | 16,071 | 105,481 | 91,000 | 517,428 | 841,416 |
| Total under care..... | 44,369 | 16,408 | 107,782 | 92,695 | 532,365 | 862,415 |
| Discharges..... | 42,226 | 15,683 | 102,992 | 89,167 | 504,972 | 818,549 |
| Deaths..... | 864 | 371 | 2,399 | 1,815 | 12,254 | 21,860 |
| Patient-days during year..... | 543,161 | 148,895 | 940,810 | 760,075 | 6,523,450 | 8,829,400 |
| Personnel—² | | | | | | |
| Salaried doctors, full-time..... | 47 | 2 | 16 | 12 | 208 | 161 |
| Interns..... | 16 | 1 | 63 | 22 | 777 | 703 |
| Graduate nurses..... | 264 | 97 | 979 | 667 | 4,338 | 9,660 |
| Student nurses..... | 300 | 162 | 880 | 642 | 3,926 | 5,810 |
| Other personnel..... | 1,274 | 324 | 2,375 | 2,093 | 17,540 | 26,324 |
| Totals, Personnel..... | 1,901 | 586 | 4,313 | 3,436 | 26,789 | 42,658 |
| | Manitoba | Saskatchewan | Alberta | British Columbia | Yukon and N.W.T. | Canada |
| | No. | No. | No. | No. | No. | No. |
| Hospitals reporting..... | 75 | 150 | 97 | 96 | 11 | 858 |
| Movement of Patients—¹ | | | | | | |
| Admissions..... | 140,249 | 201,485 | 238,051 | 250,637 | 3,810 | 2,448,719 |
| Total under care..... | 143,609 | 206,222 | 242,714 | 257,041 | 4,247 | 2,509,847 |
| Discharges..... | 136,799 | 197,332 | 233,368 | 244,135 | 3,752 | 2,388,975 |
| Deaths..... | 3,413 | 3,937 | 4,278 | 6,509 | 55 | 57,755 |
| Patient-days during year..... | 1,401,492 | 1,987,590 | 2,101,165 | 2,656,559 | 154,848 | 26,047,445 |
| Personnel—² | | | | | | |
| Salaried doctors, full-time..... | 16 | 24 | 24 | 38 | 1 | 549 |
| Interns..... | 107 | 72 | 127 | 186 | 1 | 2,075 |
| Graduate nurses..... | 1,139 | 1,670 | 1,899 | 2,911 | 50 | 23,674 |
| Student nurses..... | 726 | 1,279 | 1,266 | 1,203 | — | 16,194 |
| Other personnel..... | 3,908 | 5,242 | 5,529 | 7,248 | 204 | 72,061 |
| Totals, Personnel..... | 5,896 | 8,287 | 8,845 | 11,586 | 256 | 114,553 |

¹ Includes newborn.² Includes part-time personnel except part-time salaried doctors.



5.—Finances of Reporting Public Hospitals by Province 1955

| Item | Newfoundland | Prince Edward Island | Nova Scotia | New Brunswick | Quebec | Ontario |
|---|------------------|----------------------|-------------------|------------------|-------------------|--------------------|
| | No. | No. | No. | No. | No. | No. |
| Hospitals reporting..... | 9 | 7 | 42 | 33 | 106 | 196 |
| Revenue— | \$ | \$ | \$ | \$ | \$ | \$ |
| Net earnings from patients..... | 1,399,254 | 1,082,058 | 7,744,690 | 7,044,367 | 60,745,372 | 93,067,286 |
| Provincial and municipal grants... | 2,000,394 | 159,279 | 761,304 | 1,255,243 | 1,894,008 | 12,236,758 |
| Other revenue..... | 118,581 | 58,665 | 332,399 | 149,664 | 5,108,141 | 4,381,037 |
| Totals, Revenue..... | 3,518,229 | 1,300,002 | 8,838,393 | 8,449,274 | 67,747,521 | 109,685,081 |
| Expenditure— | | | | | | |
| Salaries and wages (gross)..... | 1,864,320 | 656,861 | 5,196,840 | 4,631,799 | 39,243,411 | 72,751,764 |
| Direct expense..... | 1,973,330 | 660,615 | 4,701,716 | 3,613,814 | 27,223,589 | 36,664,749 |
| Other expenditure..... | 61,910 | 196,409 | 860,171 | 1,262,380 | 7,312,794 | 9,093,426 |
| Totals, Expenditure (gross)... | 3,899,560 | 1,513,885 | 10,758,727 | 9,507,993 | 73,779,794 | 118,509,939 |
| Cost per patient-day ¹ | 11.27 | 9.43 | 11.76 | 11.80 | 11.22 | 12.95 |

¹ Includes newborn.

5.—Finances of Reporting Public Hospitals by Province 1955—concluded

| Item | Manitoba | Saskatchewan | Alberta | British Columbia | Yukon and N.W.T. | Canada |
|---|-------------------|-------------------|-------------------|-------------------|------------------|--------------------|
| | No. | No. | No. | No. | No. | No. |
| Hospitals reporting..... | 73 | 144 | 89 | 94 | 5 | 798 ² |
| Revenue— | \$ | \$ | \$ | \$ | \$ | \$ |
| Net earnings from patients..... | 12,328,151 | 21,225,458 | 19,943,185 | 33,449,957 | 420,932 | 258,450,710 |
| Provincial and municipal grants..... | 912,363 | 418,421 | 3,725,020 | 1,203,335 | 6,786 | 24,572,911 |
| Other revenue..... | 389,610 | 426,449 | 396,809 | 1,028,831 | 62,595 | 12,452,781 |
| Totals, Revenue..... | 13,630,124 | 22,070,328 | 24,065,014 | 35,682,123 | 490,313 | 295,476,402 |
| Expenditure— | | | | | | |
| Salaries and wages (gross)..... | 9,289,001 | 14,820,352 | 15,307,888 | 26,705,659 | 57,469 | 190,525,364 |
| Direct expense..... | 5,086,505 | 7,564,969 | 8,597,026 | 10,823,813 | 392,024 | 107,302,150 |
| Other expenditure..... | 972,748 | 1,616,107 | 1,895,998 | 1,807,894 | 64,549 | 25,144,386 |
| Totals, Expenditure (gross)... | 15,348,254 | 24,001,428 | 25,800,912 | 39,337,366 | 514,042 | 322,971,900 |
| Cost per patient-day ¹ | 10.77 | 11.58 | 12.34 | 14.26 | 9.32 | 12.25 |

¹ Includes newborn.

² Sixty public hospitals reporting other information did not report finances.

Mental Institutions.—Four of every thousand Canadians were patients in the country's 104 mental institutions at the end of 1956. The number of patients was 65,107, a figure 1,424 above the 1955 year-end total and almost double the 33,000 of 1932, when records were begun. Annual data from 1948 onward show continuous numerical advances, although the accelerated population increase in 1954, 1955 and 1956 produced slight declines in the rate per 100,000 population. The data on mental institutions, except for staff, include psychiatric units in other hospitals.

Since bed capacity stood at 58,014 at the end of 1956, a net overcrowding of 7,093 patients or 12.2 p.c. is indicated. A year before, this margin had been 6,674 or 11.7 p.c. The admission (first and re-admission) rate was higher than ever during 1956, having risen by just over 10 p.c. in one year. For every 32 persons who went from the 'outside' to a mental institution in 1955, 36 entered in 1956. As recently as 1950 there had been only 16. Much of this increase is undoubtedly accounted for by the increase in the number of psychiatric units with small capacities and high patient turnover rates.

The ratio of staff to patients reached a new high in 1956. Mental hospitals at the end of 1956 had 20,598 full-time personnel—2,055 more than in 1955—representing 32 employees for every 100 patients. Psychiatric units are not included in these figures because of the difficulty of segregating their maintenance staffs; psychiatric units ordinarily utilize the services of their parent hospital.

6.—Summary Statistics of Mental Institutions, Selected Years 1932-56

| Year | Nfld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Canada |
|---|-------|--------|------|------|------|------|------|-------|-------|------|--------|
| MENTAL HOSPITALS AND PSYCHIATRIC UNITS ¹ REPORTING | | | | | | | | | | | |
| 1932..... | .. | 1 | 18 | 1 | 9 | 16 | 4 | 2 | 3 | 4 | 58 |
| 1936..... | .. | 1 | 16 | 1 | 9 | 16 | 4 | 2 | 4 | 4 | 57 |
| 1940..... | .. | 1 | 17 | 1 | 9 | 17 | 4 | 2 | 5 | 4 | 60 |
| 1944..... | .. | 1 | 17 | 1 | 9 | 16 | 4 | 2 | 5 | 4 | 59 |
| 1949..... | 1 | 1 | 18 | 1 | 9 | 17 | 4 | 4 | 5 | 4 | 64 |
| 1952..... | 1 | 1 | 18 | 1 | 15 | 20 | 4 | 4 | 6 | 5 | 75 |
| 1954..... | 1 | 1 | 18 | 3 | 15 | 29 | 6 | 4 | 8 | 11 | 96 |
| 1955..... | 1 | 1 | 18 | 4 | 15 | 28 | 6 | 5 | 8 | 11 | 97 |
| 1956..... | 1 | 2 | 18 | 4 | 19 | 29 | 6 | 6 | 8 | 11 | 104 |

¹ Includes 19 in 1954, 23 in 1955 and 27 in 1956.

6.—Summary Statistics of Mental Institutions, Selected Years 1932-56—continued

| Year | Nfld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Canada |
|-------------------------------------|-------|--------|-------|-------|--------|--------|-------|-------|-------|-------|--------|
| PATIENTS IN INSTITUTIONS AT DEC. 31 | | | | | | | | | | | |
| 1932..... | .. | 262 | 1,525 | 883 | 9,439 | 11,626 | 2,329 | 2,561 | 1,870 | 2,795 | 33,290 |
| 1936..... | .. | 260 | 2,024 | 1,006 | 11,472 | 13,574 | 2,669 | 3,133 | 2,430 | 3,265 | 39,833 |
| 1940..... | .. | 267 | 2,182 | 1,146 | 12,841 | 14,553 | 2,819 | 3,767 | 2,755 | 3,833 | 44,163 |
| 1944..... | .. | 274 | 2,236 | 1,285 | 14,074 | 15,140 | 3,024 | 4,169 | 3,069 | 4,008 | 47,279 |
| 1949..... | 676 | 292 | 2,313 | 1,397 | 15,316 | 17,260 | 3,165 | 4,447 | 3,169 | 4,628 | 52,663 |
| 1952..... | 779 | 303 | 2,412 | 1,686 | 16,971 | 18,710 | 3,378 | 4,572 | 3,780 | 5,030 | 57,621 |
| 1954..... | 903 | 297 | 2,870 | 1,734 | 17,495 | 20,132 | 3,676 | 4,633 | 4,275 | 6,288 | 62,323 |
| 1955..... | 920 | 309 | 2,953 | 1,847 | 17,734 | 20,657 | 3,707 | 4,644 | 4,453 | 6,459 | 63,683 |
| 1956..... | 952 | 481 | 2,902 | 1,828 | 18,663 | 21,172 | 3,681 | 4,577 | 4,466 | 6,385 | 65,107 |
| PATIENTS PER 100,000 POPULATION | | | | | | | | | | | |
| 1932..... | .. | 294.4 | 293.8 | 213.3 | 322.7 | 334.8 | 330.4 | 277.2 | 252.7 | 395.3 | 317.2 |
| 1936..... | .. | 279.6 | 372.7 | 232.3 | 370.2 | 376.5 | 375.3 | 336.3 | 314.4 | 438.1 | 364.3 |
| 1940..... | .. | 281.1 | 383.5 | 253.5 | 391.7 | 388.4 | 387.2 | 418.6 | 348.7 | 476.1 | 388.6 |
| 1944..... | .. | 301.1 | 366.0 | 278.7 | 402.1 | 382.0 | 416.0 | 498.7 | 379.8 | 430.0 | 396.3 |
| 1949..... | 195.9 | 310.6 | 367.7 | 275.0 | 394.5 | 394.2 | 418.1 | 534.5 | 358.1 | 415.8 | 392.3 |
| 1952..... | 208.3 | 303.0 | 369.4 | 320.5 | 406.6 | 390.8 | 423.3 | 542.3 | 388.5 | 417.4 | 399.2 |
| 1954..... | 228.6 | 294.1 | 426.4 | 321.1 | 398.7 | 393.6 | 446.7 | 533.0 | 404.4 | 485.6 | 408.4 |
| 1955..... | 226.6 | 309.0 | 432.4 | 337.7 | 392.6 | 392.3 | 441.8 | 528.9 | 408.2 | 481.3 | 406.4 |
| 1956..... | 229.3 | 484.4 | 417.7 | 329.6 | 403.2 | 391.7 | 433.1 | 519.7 | 397.6 | 456.6 | 405.7 |
| BED CAPACITY | | | | | | | | | | | |
| 1932..... | .. | 300 | 1,951 | 900 | 8,875 | 11,666 | 2,249 | 2,450 | 1,875 | 2,685 | 32,951 |
| 1936..... | .. | 275 | 2,126 | 1,025 | 11,484 | 13,050 | 2,272 | 2,600 | 2,092 | 2,455 | 37,379 |
| 1940..... | .. | 275 | 2,474 | 1,160 | 11,916 | 13,617 | 2,348 | 2,700 | 2,494 | 2,457 | 39,441 |
| 1944..... | .. | 275 | 2,546 | 1,150 | 13,150 | 14,497 | 2,578 | 2,970 | 2,873 | 2,461 | 42,500 |
| 1949..... | 530 | 250 | 2,346 | 1,100 | 13,732 | 14,290 | 2,477 | 3,711 | 2,558 | 3,061 | 44,055 |
| 1952..... | 530 | 250 | 2,672 | 1,100 | 16,280 | 15,415 | 2,577 | 2,928 | 3,506 | 3,635 | 48,893 |
| 1954..... | 526 | 300 | 3,099 | 1,131 | 16,487 | 17,008 | 3,508 | 3,100 | 4,197 | 4,990 | 54,346 |
| 1955..... | 650 | 300 | 2,995 | 1,150 | 17,471 | 18,391 | 3,237 | 3,508 | 4,296 | 5,011 | 57,009 |
| 1956..... | 650 | 486 | 2,989 | 1,151 | 17,910 | 18,409 | 3,452 | 3,530 | 4,418 | 5,019 | 58,014 |
| BED CAPACITY PER 100,000 POPULATION | | | | | | | | | | | |
| 1932..... | .. | 337.1 | 375.9 | 217.4 | 303.4 | 335.8 | 319.0 | 265.2 | 253.4 | 379.8 | 313.9 |
| 1936..... | .. | 295.7 | 391.5 | 236.7 | 370.6 | 361.9 | 319.5 | 279.1 | 270.7 | 329.4 | 341.9 |
| 1940..... | .. | 289.5 | 434.8 | 256.7 | 363.7 | 363.4 | 322.5 | 300.0 | 315.7 | 305.2 | 347.1 |
| 1944..... | .. | 302.2 | 416.7 | 249.5 | 375.7 | 365.8 | 354.6 | 355.3 | 355.6 | 264.1 | 356.3 |
| 1949..... | 153.6 | 266.0 | 373.0 | 216.5 | 353.7 | 326.4 | 327.2 | 446.0 | 289.0 | 275.0 | 328.2 |
| 1952..... | 141.7 | 250.0 | 409.2 | 209.1 | 390.0 | 322.0 | 322.9 | 347.3 | 360.3 | 301.7 | 338.7 |
| 1954..... | 133.2 | 297.0 | 460.5 | 209.4 | 375.7 | 332.5 | 426.2 | 355.1 | 397.1 | 385.3 | 356.1 |
| 1955..... | 160.1 | 300.0 | 438.5 | 210.2 | 386.8 | 349.2 | 385.8 | 399.5 | 393.8 | 373.4 | 363.8 |
| 1956..... | 156.6 | 489.4 | 430.3 | 207.5 | 387.0 | 340.6 | 406.1 | 400.8 | 393.4 | 358.9 | 361.5 |
| FIRST ADMISSIONS AND RE-ADMISSIONS | | | | | | | | | | | |
| 1932..... | .. | 89 | 413 | 130 | 2,504 | 3,756 | 668 | 626 | 520 | 695 | 9,456 |
| 1936..... | .. | 97 | 433 | 273 | 3,027 | 4,223 | 599 | 775 | 781 | 910 | 11,123 |
| 1940..... | .. | 85 | 488 | 333 | 2,503 | 3,578 | 564 | 744 | 600 | 928 | 9,823 |
| 1944..... | .. | 112 | 617 | 414 | 3,317 | 4,118 | 716 | 725 | 653 | 1,122 | 11,799 |
| 1949..... | 174 | 104 | 666 | 492 | 3,410 | 5,339 | 793 | 1,269 | 857 | 2,372 | 15,476 |
| 1952..... | 322 | 182 | 848 | 677 | 5,936 | 6,240 | 924 | 1,496 | 1,185 | 3,147 | 20,957 |

6.—Summary Statistics of Mental Institutions, Selected Years 1932-56—concluded

| Year | Nfld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Canada |
|--|-------|--------|-------|-------|--------|--------|-------|-------|-------|-------|--------|
| FIRST ADMISSIONS AND RE-ADMISSIONS—concluded | | | | | | | | | | | |
| 1954..... | 232 | 210 | 1,541 | 685 | 6,698 | 9,182 | 1,611 | 1,603 | 2,214 | 5,325 | 29,351 |
| 1955..... | 255 | 187 | 1,671 | 1,020 | 7,308 | 10,078 | 1,571 | 1,745 | 2,633 | 5,751 | 32,222 |
| 1956..... | 267 | 217 | 1,659 | 992 | 10,396 | 10,827 | 1,684 | 2,129 | 2,546 | 5,721 | 36,438 |
| ADMISSIONS PER 100,000 POPULATION | | | | | | | | | | | |
| 1932..... | .. | 100.0 | 80.5 | 43.5 | 85.6 | 108.1 | 94.7 | 67.7 | 70.3 | 98.3 | 90.1 |
| 1936..... | .. | 104.3 | 79.7 | 63.0 | 97.7 | 117.3 | 84.2 | 83.2 | 101.1 | 122.1 | 101.7 |
| 1940..... | .. | 89.5 | 85.8 | 73.7 | 76.4 | 95.5 | 77.5 | 82.7 | 75.9 | 115.3 | 86.4 |
| 1944..... | .. | 123.1 | 101.0 | 89.8 | 94.8 | 103.9 | 98.5 | 86.7 | 81.4 | 120.4 | 98.9 |
| 1949..... | 50.4 | 110.6 | 105.9 | 96.9 | 87.8 | 122.0 | 104.8 | 152.5 | 96.8 | 213.1 | 115.3 |
| 1952..... | 86.1 | 182.0 | 129.9 | 128.7 | 142.2 | 130.3 | 115.8 | 177.5 | 121.8 | 261.2 | 145.2 |
| 1954..... | 71.4 | 207.9 | 229.0 | 126.9 | 152.6 | 179.5 | 195.7 | 183.6 | 209.5 | 411.2 | 192.3 |
| 1955..... | 62.8 | 187.0 | 244.7 | 186.5 | 161.8 | 191.4 | 187.2 | 199.1 | 241.3 | 428.5 | 205.6 |
| 1956..... | 64.3 | 218.5 | 238.8 | 178.9 | 224.6 | 200.3 | 198.1 | 241.7 | 226.7 | 409.1 | 227.0 |
| FULL-TIME PERSONNEL ¹ | | | | | | | | | | | |
| 1932..... | .. | 58 | 305 | 83 | 1,592 | 2,723 | 526 | 403 | 344 | 524 | 6,558 |
| 1936..... | .. | 69 | 316 | 128 | 2,232 | 2,661 | 538 | 471 | 423 | 592 | 7,430 |
| 1940..... | .. | 64 | 357 | 171 | 2,177 | 3,317 | 648 | 731 | 503 | 721 | 8,689 |
| 1944..... | .. | 65 | 331 | 159 | 2,279 | 3,248 | 617 | 723 | 567 | 897 | 8,906 |
| 1949..... | 267 | 78 | 476 | 274 | 2,871 | 4,498 | 794 | 1,253 | 853 | 1,448 | 12,812 |
| 1952..... | 338 | 101 | 598 | 349 | 3,479 | 5,659 | 820 | 1,332 | 1,161 | 1,919 | 15,756 |
| 1954..... | 397 | 107 | 629 | 507 | 3,776 | 7,108 | 1,036 | 1,301 | 1,406 | 2,294 | 18,561 |
| 1955..... | 426 | 98 | 644 | 522 | 3,812 | 6,800 | 1,000 | 1,406 | 1,496 | 2,339 | 18,543 |
| 1956..... | 457 | 146 | 746 | 560 | 4,177 | 7,804 | 1,073 | 1,495 | 1,559 | 2,581 | 20,598 |
| FULL-TIME PERSONNEL PER 100 PATIENTS AT DEC. 31 ¹ | | | | | | | | | | | |
| 1932..... | .. | 22.1 | 20.0 | 9.4 | 16.9 | 23.4 | 22.6 | 15.7 | 18.4 | 18.7 | 19.7 |
| 1936..... | .. | 26.5 | 15.6 | 12.7 | 19.5 | 19.6 | 20.2 | 15.0 | 17.4 | 18.1 | 18.7 |
| 1940..... | .. | 24.0 | 16.4 | 14.9 | 17.0 | 22.8 | 23.0 | 19.4 | 18.3 | 18.8 | 19.7 |
| 1944..... | .. | 23.7 | 15.7 | 12.4 | 16.2 | 21.5 | 20.4 | 17.3 | 18.5 | 22.4 | 18.8 |
| 1949..... | 39.5 | 26.7 | 20.6 | 19.7 | 18.7 | 26.1 | 25.1 | 28.2 | 26.9 | 31.3 | 24.3 |
| 1952..... | 43.4 | 33.3 | 24.8 | 20.7 | 20.5 | 20.2 | 24.3 | 29.1 | 30.7 | 38.2 | 27.3 |
| 1954..... | 46.6 | 41.1 | 24.0 | 31.0 | 23.4 | 36.9 | 29.4 | 28.4 | 33.5 | 37.7 | 31.2 |
| 1955..... | 46.3 | 31.7 | 22.0 | 28.4 | 22.4 | 34.7 | 27.6 | 30.6 | 34.0 | 36.6 | 30.1 |
| 1956..... | 48.0 | 30.4 | 25.9 | 30.8 | 22.8 | 37.3 | 29.8 | 33.0 | 35.1 | 40.9 | 32.0 |
| COST PER PATIENT-DAY ² | | | | | | | | | | | |
| 1932..... | .. | 0.92 | 0.72 | 0.64 | 0.50 | 1.11 | 0.96 | 0.89 | 1.28 | 1.10 | 0.88 |
| 1936..... | .. | 1.18 | 0.71 | 0.68 | 0.62 | 0.87 | 0.85 | 0.94 | 0.93 | 0.94 | 0.80 |
| 1940..... | .. | 1.32 | 0.78 | 0.89 | 0.67 | 1.06 | 0.99 | 1.02 | 0.94 | 1.06 | 0.92 |
| 1944..... | .. | 1.69 | 0.93 | 1.05 | 0.83 | 1.17 | 1.04 | 1.10 | 1.05 | 1.19 | 1.03 |
| 1949..... | 2.74 | 2.32 | 1.67 | 1.81 | 1.30 | 2.18 | 1.83 | 2.42 | 2.17 | 3.01 | 1.94 |
| 1952..... | 4.29 | 2.79 | 2.11 | 2.15 | 1.63 | 2.91 | 2.22 | 2.89 | 2.74 | 3.87 | 2.53 |
| 1954..... | 4.81 | 3.31 | 2.11 | 3.03 | 1.98 | 3.21 | 2.73 | 3.27 | 3.24 | 4.15 | 2.92 |
| 1955..... | 5.17 | 3.44 | 2.11 | 3.01 | 1.83 | 3.31 | 2.79 | 3.93 | 3.39 | 4.29 | 2.97 |
| 1956..... | 5.35 | 3.98 | 2.47 | 3.46 | 2.19 | .. | 3.02 | 3.95 | 3.78 | 4.69 | 3.35 |

¹ Excludes personnel of psychiatric units.
Government and psychiatric units of general hospitals.

² Excludes institutions under jurisdiction of the Federal

7.—Finances of Reporting Mental Institutions by Province 1956

| Item | Newfoundland | Prince Edward Island | Nova Scotia ¹ | New Brunswick | Quebec | Ontario |
|--|------------------|----------------------|--------------------------|-------------------------------|-------------------|-------------------|
| | \$ | \$ | \$ | \$ | \$ | \$ |
| Revenue..... | 1,837,650 | 433,971 | 2,663,126 | 2,318,731 | 13,928,497 | 28,448,269 |
| Government and municipal payments..... | 1,789,395 | 336,493 | 2,292,758 | 2,037,473 | 11,432,243 | 23,875,655 |
| Paying patients..... | 48,255 | 97,478 | 296,518 | 279,685 | 1,601,134 | 4,070,064 |
| Other sources..... | — | — | 73,850 | 1,573 | 895,120 | 502,550 |
| Expenditure..... | 1,837,650 | 433,971 | 2,639,299 | 2,318,731 | 13,507,505 | 28,383,113 |
| Salaries (net)..... | 893,988 | 189,876 | 1,305,005 | 1,483,322 | 6,193,792 | 18,223,891 |
| Provisions (food)..... | 484,140 | 94,675 | 597,792 | 402,715 | 2,562,905 | 3,603,236 |
| Other maintenance expenditure.... | 459,522 | 149,420 | 736,502 | 432,694 | 4,750,808 | 6,555,986 |
| | Manitoba | Saskatchewan | Alberta | British Columbia ² | Yukon and N.W.T. | Canada |
| | \$ | \$ | \$ | \$ | \$ | \$ |
| Revenue..... | 4,161,711 | 6,908,410 | 6,233,062 | 10,921,728 | — | 77,845,155 |
| Government and municipal payments..... | 3,626,331 | 6,718,062 | 5,306,009 | 9,772,086 | — | 67,186,505 |
| Paying patients..... | 480,680 | 138,794 | 714,731 | 1,147,470 | — | 8,874,809 |
| Other sources..... | 54,700 | 51,554 | 202,322 | 2,172 | — | 1,783,841 |
| Expenditure..... | 4,052,960 | 6,608,386 | 6,223,062 | 10,937,355 | — | 76,942,032 |
| Salaries (net)..... | 2,445,740 | 4,477,715 | 4,236,551 | 6,125,741 | — | 45,575,621 |
| Provisions (food)..... | 772,606 | 708,982 | 808,598 | 2,202,491 | — | 12,238,140 |
| Other maintenance expenditure.... | 834,614 | 1,421,689 | 1,177,913 | 2,609,123 | — | 19,128,271 |

¹ Includes 1955 data for two hospitals that did not report later data.
hospitals that did not report later data.

² Includes 1955-56 data for seven

Tuberculosis Sanatoria and Units.—The effects of the development of new therapeutic techniques were in evidence at the end of 1956. At that point the number of beds devoted to care of the tuberculous in Canada was only 16,678, a drop of 1,005 in two years. Table 8 shows the provincial distribution of the bed complement and its location in various types of institution. Table 9 provides information on patients, personnel and facilities. Patient-days were down by 11.7 p.c. from 5,947,030 in 1954 to 5,250,555 in 1956, and personnel (in sanatoria only) dropped 10.4 p.c. from 10,864 to 9,739. Finances of public sanatoria are covered briefly in Table 10.

8.—Bed Complement of Tuberculosis Sanatoria and Units by Province 1956

| Item | Nfld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | N.W.T. | Canada |
|--|------------|-----------|--------------|------------|--------------|--------------|--------------|------------|------------|--------------|------------|---------------|
| | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| Public sanatoria..... | 730 | 92 | 853 | 832 | 4,144 | 4,207 | 622 | 803 | 586 | 655 | — | 13,524 |
| Federal Government sanatoria..... | — | — | — | — | — | — | 497 | — | — | 539 | — | 1,036 |
| Units in public hospitals.... | 75 | — | 124 | — | 385 | — | — | — | — | 221 | 319 | 1,124 |
| Units in Federal Government hospitals..... | — | — | 95 | 26 | 270 | 206 | — | 62 | 335 | — | — | 994 |
| Totals, Bed Complement | 805 | 92 | 1,072 | 858 | 4,799 | 4,413 | 1,119 | 865 | 921 | 1,415 | 319 | 16,678 |

9.—Movement of Patients, Personnel and Facilities of Tuberculosis Sanatoria and Units by Province 1956

| Item | New- foundland | Prince Edward Island | Nova Scotia | New Brunswick | Quebec | Ontario |
|---|-------------------|----------------------------|----------------|---------------------|--------------------------|--------------|
| | No. | No. | No. | No. | No. | No. |
| Movement of Patients— | | | | | | |
| Admissions..... | 965 | 81 | 1,958 | 1,287 | 7,310 | 4,740 |
| Discharges ¹ | 1,056 | 83 | 2,063 | 1,315 | 7,158 | 4,745 |
| Deaths..... | 49 | 1 | 35 | 41 | 347 | 249 |
| Patients under care..... | 1,757 | 172 | 2,502 | 1,839 | 10,830 | 7,651 |
| Collective stay in days..... | 267,464 | 33,382 | 271,058 | 246,370 | 1,617,030 | 1,358,614 |
| Personnel—² | | | | | | |
| Salaries doctors..... | 18 | 2 | 35 | 26 | 193 | 98 |
| Graduate nurses..... | 54 | 13 | 117 | 89 | 260 | 389 |
| Other personnel..... | 480 | 75 | 605 | 490 | 1,858 | 2,131 |
| Totals, Personnel..... | 552 | 90 | 757 | 605 | 2,311 | 2,618 |
| Hospital Facilities—² | | | | | | |
| X-ray..... | 2 | — | 4 | 5 | 15 | 12 |
| Clinical laboratory..... | 2 | 1 | 3 | 3 | 14 | 14 |
| Physiotherapy..... | 1 | — | 2 | — | 8 | 2 |
| | Manitoba | Saskat- chewan | Alberta | British Columbia | Northwest Territories | Canada |
| | No. | No. | No. | No. | No. | No. |
| Movement of Patients— | | | | | | |
| Admissions..... | 1,596 | 845 | 883 | 1,480 | 123 | 21,268 |
| Discharges ¹ | 1,560 | 886 | 915 | 1,584 | 193 | 21,558 |
| Deaths..... | 51 | 39 | 42 | 99 | 6 | 959 |
| Patients under care..... | 2,264 | 1,422 | 1,716 | 2,705 | 335 | 33,193 |
| Collective stay in days..... | 362,092 | 269,258 | 288,863 | 462,634 | 73,790 | 5,250,555 |
| Personnel—² | | | | | | |
| Salaries doctors..... | 17 | 17 | 19 | 35 | — | 460 |
| Graduate nurses..... | 58 | 65 | 81 | 207 | — | 1,333 |
| Other personnel..... | 601 | 489 | 337 | 880 | — | 7,946 |
| Totals, Personnel..... | 676 | 571 | 437 | 1,122 | — | 9,739 |
| Hospital Facilities—² | | | | | | |
| X-ray..... | 5 | — | 1 | 3 | — | 47 |
| Clinical laboratory..... | 5 | 3 | 2 | 4 | — | 51 |
| Physiotherapy..... | 2 | 1 | 1 | 1 | — | 18 |

¹ Excludes deaths.² Sanatoria only.

10.—Finances of Public Tuberculosis Sanatoria by Province 1956

(Exclusive of Federal Government sanatoria)

| Item | New- foundland | Prince Edward Island | Nova Scotia | New Brunswick | Quebec | Ontario |
|--|-------------------|----------------------------|------------------|------------------|------------------|------------------|
| | No. | No. | No. | No. | No. | No. |
| Sanatoria reporting..... | 2 | 1 | 5 | 5 | 16 | 15 |
| Revenue— | \$ | \$ | \$ | \$ | \$ | \$ |
| Government and municipal grants and payments..... | 1,816,031 | 203,635 | 2,060,116 | 2,084,397 | 6,148,373 | 6,062,707 |
| Paying patients..... | — | 4,203 | — | 14,564 | 319,462 | 76,258 |
| Other sources..... | 46,317 | 68,887 | 125,499 | 102,104 | 1,167,373 | 3,542,295 |
| Totals, Revenue..... | 1,862,348 | 276,725 | 2,185,615 | 2,201,065 | 7,635,208 | 9,681,260 |
| Expenditure— | | | | | | |
| Salaries and wages..... | 913,476 | 132,997 | 1,232,187 | 1,211,716 | 3,816,197 | 5,278,136 |
| Supplies..... | 681,324 | 122,574 | 691,619 | 557,411 | 2,187,278 | 1,989,789 |
| Other expenditure..... | 267,548 | 21,154 | 293,352 | 476,798 | 1,952,864 | 1,876,546 |
| Totals, Expenditure..... | 1,862,348 | 276,725 | 2,217,158 | 2,245,925 | 7,956,339 | 9,144,471 |
| Cost per patient-day..... | 7.99 | 8.29 | 10.73 | 9.48 | 5.77 | 6.91 |

10.—Finances of Public Tuberculosis Sanatoria by Province 1956—concluded

| Item | Manitoba | Saskatchewan | Alberta | British Columbia ¹ | Yukon and N.W.T. | Canada |
|--|------------------|------------------|------------------|-------------------------------|------------------|-------------------|
| | No. | No. | No. | No. | No. | No. |
| Sanatoria reporting | 3 | 3 | 2 | 4 | — | 56 |
| | \$ | \$ | \$ | \$ | \$ | \$ |
| Revenue— | | | | | | |
| Government and municipal grants and payments | 877,284 | 1,416,707 | 1,706,315 | 2,940,327 | — | 25,315,892 |
| Paying patients | 928 | — | 2,414 | 73,377 | — | 491,206 |
| Other sources | 211,242 | 594,234 | 233,226 | 293,408 | — | 6,384,585 |
| Totals, Revenue | 1,089,454 | 2,010,941 | 1,941,955 | 3,307,112 | — | 32,191,683 |
| Expenditure— | | | | | | |
| Salaries and wages | 677,059 | 1,328,911 | 1,402,269 | 2,316,234 | — | 18,309,182 |
| Supplies | 282,297 | 431,430 | 447,351 | 588,588 | — | 7,979,661 |
| Other expenditure | 245,051 | 86,593 | 92,335 | 402,290 | — | 5,714,531 |
| Totals, Expenditure | 1,204,407 | 1,846,934 | 1,941,955 | 3,307,112 | — | 32,003,374 |
| Cost per patient-day | 6.34 | 7.58 | 10.51 | 15.80 | — | 7.55 |

¹ Includes all institutions operated by the Provincial Division of Tuberculosis Control.

Federal Government Hospitals.—Under the terms of the British North America Act, health and welfare is the special responsibility of the provinces. Nevertheless the Federal Government is responsible for the health of certain groups such as war veterans and members of the Armed Forces, newly arrived immigrants, Indians and Eskimos, and lepers. The Federal hospitals are administered by three departments of government: in 1955 the Department of Veterans Affairs administered 19; the Department of National Defence, 8; the Department of National Health and Welfare's Indian and Northern Health Services, 18; and the Department of National Health and Welfare's Quarantine, Immigration Medical, and Sick Mariners' Services, 10. Certain hospitals of the Department of National Defence are not included in the figures of Table 11.

11.—Summary Statistics of Federal Government Hospitals 1955

| Item | Department of Veterans Affairs | Department of National Defence | Department of National Health and Welfare | | Total |
|---------------------------|--------------------------------|--------------------------------|---|---|---------------|
| | | | Indian and Northern Health Services | Quarantine, Immigration Medical, and Sick Mariners' Services ¹ | |
| | No. | No. | No. | No. | No. |
| Hospitals reporting | 19 | 8 | 18 | 10 | 55 |
| Beds—² | | | | | |
| General | 5,422 | 775 | 595 | 112 | 6,904 |
| Tuberculosis | 677 | — | 1,598 | 200 | 2,475 |
| Mental | 1,509 | — | — | — | 1,509 |
| Other | 2,429 | — | — | 100 | 2,529 |
| Totals, Beds | 10,037 | 775 | 2,193 | 412 | 13,417 |

¹ Data for movement of patients are for the year ended Mar. 31, 1955.

² Excludes bassinets.

11.—Summary Statistics of Federal Government Hospitals 1955—concluded

| Item | Department of Veterans Affairs | Department of National Defence | Department of National Health and Welfare | | Total |
|---------------------------------------|--------------------------------|--------------------------------|---|---|---------------|
| | | | Indian and Northern Health Services | Quarantine, Immigration Medical, and Sick Mariners' Services ¹ | |
| | No. | No. | No. | No. | No. |
| Personnel— | | | | | |
| Salaried doctors..... | 129 | 81 | 56 | 24 | 290 |
| Graduate nurses..... | 1,470 | 161 | 349 | 50 | 2,030 |
| Other personnel..... | 7,033 | 683 | 1,374 | 141 | 9,231 |
| Totals, Personnel..... | 8,632 | 925 | 1,779 | 215 | 11,551 |
| Facilities— | | | | | |
| Laboratory..... | 14 | 8 | 18 | 9 | 49 |
| Radiology..... | 14 | 8 | 18 | 5 | 45 |
| Physiotherapy..... | 19 | 7 | 3 | 2 | 31 |
| Out-patient service..... | 15 | 8 | 16 | 9 | 48 |
| Movement of Patients— | | | | | |
| In hospital at beginning of year..... | 7,265 | 501 | 1,985 | 49 | 9,800 |
| Admissions..... | 54,912 | 18,523 | 11,183 | 814 | 85,432 |
| Totals, Under Care..... | 62,177 | 19,024 | 13,168 | 863 | 95,232 |
| Discharges..... | 52,973 | 18,621 | 11,108 | 831 | 83,533 |
| Deaths..... | 2,299 | 26 | 181 | — | 2,506 |
| In hospital at end of year..... | 6,905 | 377 | 1,879 | 32 | 9,193 |
| Patient-days during year..... | 2,883,530 | 281,081 | 702,118 | 13,838 | 3,880,567 |
| Average daily number of patients..... | 7,900.1 | 770.1 | 1,923.6 | 37.9 | 10,631.7 |
| Percentage occupancy..... | 78.7 | 99.4 | 87.7 | 9.0 | 79.2 |

Subsection 2.—Canadian Sickness Survey, 1950-51*

A brief outline of the scope and methods of the Canadian Sickness Survey, a co-operative effort of federal and provincial departments, is given in the 1955 Year Book and some of the results of that Survey were published in the 1955 and 1956 editions. Study of the data still continues, the results being regularly published in a series of bulletins. During the year 1957 further results of the Survey became available, shedding for the first time some light on the frequency of various diseases in the population.

Incidence of Illness in Canada during the Survey Year.—Tables 12 and 13 show the estimated rates per 1,000 population of the incidence of illness as experienced by the Canadian population during 1950-51. The incidence includes all new illnesses that commenced within the survey year. Table 12 shows separate rates for 83 diagnostic groups, based on the International Statistical Classification of Diseases, Injuries and Causes of Death. Table 13 shows rates and percentages for 14 major diagnostic classes by age groups.

* Prepared in the Public Health Section of the Health and Welfare Division, Dominion Bureau of Statistics.

12.—Rates per 1,000 Population and Percentages of New Illnesses Reported, classified according to the International Standard Classification of Diseases, Injuries and Causes of Death, Survey Year 1950-51.

| Int. List No. | Class of Illness and Diagnostic Group | Estimated New Illnesses Reported per 1,000 Population | P.C. of All New Illnesses Reported | P.C. of Respective Class |
|-------------------------------------|---|---|------------------------------------|--------------------------|
| 001-138 | Infective and Parasitic Diseases | 115.7 | 5.19 | 100.0 |
| 050-053 | Scarlet fever, streptococcal sore throat, erysipelas, septicæmia, pyæmia..... | 7.8 | 0.35 | 6.8 |
| 056 | Whooping cough..... | 6.9 | 0.31 | 5.9 |
| 001-019, 040-049, 054, 055, 057-074 | Other bacterial diseases (tuberculosis, dysentery, food poisonings, and others)..... | 5.8 | 0.26 | 5.0 |
| 085 | Measles..... | 34.4 | 1.54 | 29.8 |
| 086 | Rubella (German measles)..... | 5.6 | 0.25 | 4.8 |
| 087 | Chickenpox..... | 19.4 | 0.87 | 16.8 |
| 089 | Mumps..... | 20.6 | 0.93 | 17.8 |
| 126-130 | Infestations with worms..... | 5.8 | 0.26 | 5.0 |
| 131-137 | Fungus infections and arthropod infections..... | 3.9 | 0.17 | 3.4 |
| 020-039, 080-084, 088, 090-125, 138 | Other infective and parasitic diseases..... | 5.5 | 0.24 | 4.7 |
| 140-239 | Neoplasms | 5.3 | 0.24 | 100.0 |
| 240-289 | Allergic, Endocrine, Metabolic and Nutritional Diseases | 10.9 | 0.49 | 100.0 |
| 240 | Hay fever..... | .. | .. | .. |
| 241 | Asthma..... | .. | .. | .. |
| 242-245 | Urticaria and other allergic disorders..... | 5.7 | 0.25 | 52.3 |
| 250-289 | Thyroid disorders, diabetes and other endocrine, metabolic and nutritional disorders..... | .. | .. | .. |
| 290-299 | Diseases of the Blood and Blood-forming Organs | 5.3 | 0.24 | 100.0 |
| 290-299 | Anæmias and other diseases of the blood and blood-forming organs..... | 5.3 | 0.24 | 100.0 |
| 330-398 | Diseases of the Nervous System and Sense Organs | 73.4 | 3.29 | 100.0 |
| 354 | Migraine..... | .. | .. | .. |
| 330-353, 355-357 | Vascular lesions, epilepsy, and other diseases of the brain and spinal cord..... | .. | .. | .. |
| 360-369 | Neuralgia and neuritis..... | 8.6 | 0.38 | 11.7 |
| 370 | Conjunctivitis and ophthalmia..... | 3.8 | 0.17 | 5.2 |
| 371-379 | Hordeolum and other inflammatory eye diseases..... | 19.0 | 0.85 | 26.0 |
| 380-389 | Other diseases of the eye..... | 5.0 | 0.22 | 6.8 |
| 390-393 | Otitis and mastoiditis..... | 4.8 | 0.21 | 6.5 |
| 394-398 | Other diseases of the ear..... | 27.6 | 1.24 | 37.7 |
| 400-468 | Diseases of the Circulatory System | 20.9 | 0.93 | 100.0 |
| 400-434 | Diseases of heart without hypertension, rheumatic fever..... | 7.7 | 0.34 | 36.8 |
| 440-447 | Hypertensive disease..... | 4.2 | 0.19 | 20.0 |
| 460 | Varicose veins of lower extremities..... | .. | .. | .. |
| 461-466 | Hæmorrhoids, phlebitis and other diseases of veins..... | 3.7 | 0.17 | 17.7 |
| 450-456, 467, 468 | Arterial diseases and other diseases of the circulatory system..... | 4.3 | 0.19 | 20.6 |
| 470-527 | Diseases of the Respiratory System | 1,310.1 | 58.70 | 100.0 |
| 470 | Acute nasopharyngitis (common cold)..... | 659.9 | 29.54 | 50.4 |
| 472 | Acute pharyngitis..... | 68.5 | 3.07 | 5.2 |
| 473, 511 | Acute tonsillitis, peritonsillar abscess (quinsy)..... | 9.5 | 0.43 | 0.7 |
| 474 | Acute laryngitis and tracheitis..... | 7.1 | 0.32 | 0.5 |
| 475 | Acute upper respiratory infection of multiple or unspecified sites..... | 23.6 | 1.06 | 1.8 |
| 180, 481, 483 | Influenza with respiratory and nervous manifestations, and influenza unqualified..... | 423.7 | 18.99 | 32.3 |
| 482 | Influenza with digestive manifestations..... | 46.9 | 2.10 | 3.6 |
| 490-493 | Pneumonia..... | 10.4 | 0.46 | 0.8 |
| 500-502 | Bronchitis..... | 32.4 | 1.45 | 2.5 |
| 510 | Hypertrophy of tonsils and adenoids..... | 10.0 | 0.45 | 0.8 |
| 513 | Chronic sinusitis..... | 6.2 | 0.28 | 0.5 |
| 471, 512, 514-527 | Pleurisy and other diseases of lungs and upper respiratory tract, and pleural cavity..... | 11.7 | 0.53 | 0.9 |

12.—Rates per 1,000 Population and Percentages of New Illnesses Reported, classified according to the International Standard Classification of Diseases, Injuries and Causes of Death, Survey Year 1950-51—continued.

| Int. List No. | Class of Illness and Diagnostic Group | Estimated New Illnesses Reported per 1,000 Population | P.C. of All New Illnesses Reported | P.C. of Respective Class |
|------------------------|--|---|------------------------------------|--------------------------|
| 530-587 | Diseases of the Digestive System | 165.2 | 7.40 | 100.0 |
| 530, 534 | Toothache and dental caries..... | 26.0 | 1.17 | 15.8 |
| 531, 532, 535 | Abscesses and other diseases of teeth and supporting structures..... | 4.9 | 0.22 | 2.9 |
| 533 | Disorders of occlusion, eruption and tooth development..... | 11.7 | 0.53 | 7.1 |
| 536-539 | Stomatitis and other diseases of buccal cavity and oesophagus..... | 5.1 | 0.23 | 3.1 |
| 540-542 | Ulcer of stomach and duodenum..... | .. | .. | .. |
| 543-545 | Disorders of function of stomach and other diseases of stomach and duodenum..... | 79.8 | 3.57 | 48.3 |
| 550-553, 560-561, 570 | Diseases of appendix, herniæ, intestinal obstruction..... | 9.0 | 0.40 | 5.4 |
| 571 | Gastro-enteritis and colitis except ulcerative, age 4 weeks or over..... | 8.7 | 0.39 | 5.2 |
| 572-578 | Functional disorders and other diseases of the intestines and peritoneum..... | 6.6 | 0.29 | 4.0 |
| 580-587 | Diseases of liver, gallbladder and pancreas..... | 11.3 | 0.50 | 6.8 |
| 590-637 | Diseases of the Genito-Urinary System | 32.1 | 1.44 | 100.0 |
| 600-603 | Diseases of the kidney and ureter..... | 10.1 | 0.45 | 31.4 |
| 590-594, 604-609 | Other diseases of urinary system..... | 6.3 | 0.28 | 19.6 |
| 610-637 | Diseases of genital organs..... | 15.7 | 0.70 | 49.0 |
| 640-689 | Deliveries and Complications of Pregnancy, Child-birth and the Puerperium | 32.3 | 1.45 | 100.0 |
| 660 | Delivery without complication..... | 23.2 | 1.04 | 71.8 |
| 640-652, 670-689 | Complications of pregnancy, childbirth and puerperium..... | 9.1 | 0.41 | 28.2 |
| 690-716 | Diseases of the Skin and Cellular Tissue | 46.0 | 2.06 | 100.0 |
| 690 | Boils and carbuncles..... | 15.0 | 0.67 | 32.6 |
| 691-695 | Cellulitis and impetigo..... | 7.0 | 0.31 | 15.1 |
| 696-698 | Other local skin infections..... | 10.5 | 0.47 | 22.9 |
| 701 | Eczema..... | 4.1 | 0.18 | 8.9 |
| 700, 702-716 | Other skin diseases..... | 9.4 | 0.42 | 20.5 |
| 720-749 | Diseases of the Bones and Organs of Movement ... | 24.8 | 1.11 | 100.0 |
| 720-725 | Arthritis..... | .. | .. | .. |
| 726 | Muscular rheumatism..... | 11.4 | 0.51 | 45.8 |
| 727 | Rheumatism, unspecified..... | 7.4 | 0.33 | 29.9 |
| 730-749 | Other diseases of bones, joints, and musculoskeletal system..... | 4.3 | 0.19 | 17.3 |
| 300-326, 750-776 | Other Diseases | .. | .. | .. |
| 780-795 | Symptoms, Senility and Ill-defined Conditions ... | 257.3 | 11.53 | 100.0 |
| 780, 781 | Symptoms referable to nervous system and special senses..... | 8.3 | 0.37 | 3.2 |
| 782 | Symptoms referable to cardiovascular and lymphatic system..... | 7.8 | 0.35 | 3.1 |
| 783 | Symptoms referable to respiratory system..... | 29.7 | 1.33 | 11.5 |
| 784 | Symptoms referable to upper gastro-intestinal tract..... | 12.9 | 0.58 | 5.0 |
| 785 | Symptoms referable to abdomen and lower gastro-intestinal system..... | 30.8 | 1.38 | 12.0 |
| 787 | Symptoms referable to limbs and back..... | 52.2 | 2.34 | 20.3 |
| 790 | Nervousness and debility..... | 18.5 | 0.83 | 7.2 |
| 791 | Headaches..... | 66.1 | 2.96 | 25.7 |
| 786, 788, 789, 792-795 | Other ill-defined symptoms and conditions..... | 31.1 | 1.39 | 12.1 |

12.—Rates per 1,000 Population and Percentages of New Illnesses Reported, classified according to the International Standard Classification of Diseases, Injuries and Causes of Death, Survey Year 1950-51—concluded.

| Int. List No. | Class of Illness and Diagnostic Group | Estimated New Illnesses Reported per 1,000 Population | P.C. of All New Illnesses Reported | P.C. of Respective Class |
|---------------------------------------|---|---|------------------------------------|--------------------------|
| N800-N999 | Injuries, Poisonings and Violence..... | 129.1 | 5.79 | 100.0 |
| N800-N829 | Fractures..... | 13.1 | 0.59 | 10.2 |
| N830-N848 | Dislocations, sprains and strains..... | 22.9 | 1.03 | 17.8 |
| N870-N908 | Lacerations and open wounds..... | 29.7 | 1.33 | 23.0 |
| N910-N918 | Superficial injury..... | 7.0 | 0.31 | 5.4 |
| N920-N929 | Contusion and crushing with intact skin surface..... | 19.3 | 0.86 | 14.9 |
| N940-N949 | Burns..... | 8.8 | 0.40 | 6.8 |
| N850-N869, N930-N936, N950-N999 | Other and unspecified effects of external cause including foreign bodies and poisoning..... | 28.3 | 1.27 | 21.9 |
| | All Illnesses..... | 2,317.7 | 100.00 | ... |

13.—Rates per 1,000 Population and Percentage Distribution of New Illnesses Reported, by Major Diagnostic Class and by Age Group, Survey Year 1950-51

| Diagnostic Class | Under 15 Years | 15-24 Years | 25-44 Years | 45-64 Years | 65 Years or Over | All Ages |
|---|----------------|----------------|----------------|----------------|------------------|----------------|
| ESTIMATED NEW ILLNESSES PER 1,000 POPULATION | | | | | | |
| Infective and Parasitic Diseases..... | 307.2 | 58.7 | 28.7 | 20.2 | .. | 115.7 |
| Neoplasms..... | .. | .. | .. | .. | .. | 5.3 |
| Allergic, Endocrine, Metabolic and Nutritional Diseases..... | 12.8 | .. | .. | .. | .. | 10.9 |
| Diseases of the Blood and Blood-forming Organs..... | .. | .. | .. | .. | .. | 5.3 |
| Diseases of the Nervous System and Sense Organs..... | 115.2 | 45.5 | 54.4 | 56.0 | 74.3 | 73.4 |
| Diseases of the Circulatory System..... | .. | .. | 25.5 | 36.3 | 49.6 | 20.9 |
| Diseases of the Respiratory System..... | 1,787.8 | 1,033.5 | 1,253.8 | 983.0 | 939.4 | 1,310.1 |
| Diseases of the Digestive System..... | 237.6 | 136.8 | 145.9 | 116.5 | 120.8 | 165.2 |
| Diseases of the Genito-Urinary System..... | 12.2 | .. | 49.7 | 40.2 | .. | 32.1 |
| Deliveries and Complications of Pregnancy, Childbirth and the Puerperium..... | .. | 61.6 | 78.9 | .. | — | 32.3 |
| Diseases of the Skin and Cellular Tissue..... | 64.7 | 39.4 | 43.2 | .. | 30.5 | 46.0 |
| Diseases of the Bones and Organs of Movement..... | .. | 8.6 | 31.5 | 45.3 | 48.0 | 24.8 |
| Symptoms, Senility and Ill-defined Conditions..... | 268.3 | 190.5 | 284.0 | 248.5 | 265.8 | 257.3 |
| Injuries, Poisonings and Violence..... | 148.7 | 117.6 | 127.8 | 118.3 | 104.9 | 129.1 |
| All Classes..... | 2,978.3 | 1,753.6 | 2,151.8 | 1,726.3 | 1,700.6 | 2,231.7 |
| PERCENTAGE DISTRIBUTION OF NEW ILLNESSES IN EACH CLASS | | | | | | |
| Infective and Parasitic Diseases..... | 80.7 | 7.7 | 7.1 | 4.5 | .. | 100.0 |
| Neoplasms..... | .. | .. | .. | .. | .. | 100.0 |
| Allergic, Endocrine, Metabolic and Nutritional Diseases..... | 53.9 | .. | .. | .. | .. | 100.0 |
| Diseases of the Blood and Blood-forming Organs..... | .. | .. | .. | .. | .. | 100.0 |
| Diseases of the Nervous System and Sense Organs..... | 47.7 | 9.4 | 21.4 | 13.6 | 7.9 | 100.0 |
| Diseases of the Circulatory System..... | .. | .. | 35.2 | 31.0 | 18.5 | 100.0 |
| Diseases of the Respiratory System..... | 41.5 | 11.9 | 27.6 | 13.4 | 5.6 | 100.0 |
| Diseases of the Digestive System..... | 43.7 | 12.5 | 25.5 | 12.6 | 5.7 | 100.0 |
| Diseases of the Genito-Urinary System..... | 11.6 | .. | 44.7 | 22.4 | .. | 100.0 |
| Deliveries and Complications of Pregnancy, Childbirth and the Puerperium..... | .. | 28.9 | 70.5 | .. | — | 100.0 |
| Diseases of the Skin and Cellular Tissue..... | 42.9 | 13.0 | 27.1 | 17.0 | .. | 100.0 |
| Diseases of the Bones and Organs of Movement..... | 15.8 | .. | 36.6 | 32.5 | 15.1 | 100.0 |
| Symptoms, Senility and Ill-defined Conditions..... | 31.7 | 11.2 | 31.8 | 17.2 | 8.0 | 100.0 |
| Injuries, Poisonings and Violence..... | 35.0 | 13.8 | 28.5 | 16.3 | 6.3 | 100.0 |
| All Classes..... | 40.6 | 11.9 | 27.8 | 13.8 | 5.9 | 100.0 |

13.—Rates per 1,000 Population and Percentage Distribution of New Illnesses Reported, by Major Diagnostic Class and by Age Group, Survey Year 1950-51—concluded

| Diagnostic Class | Under 15 Years | 15-24 Years | 25-44 Years | 45-64 Years | 65 Years or Over | All Ages |
|---|--|---------------|---------------|---------------|------------------|---------------|
| | PERCENTAGE DISTRIBUTION OF NEW ILLNESSES IN EACH AGE GROUP | | | | | |
| Infective and Parasitic Diseases..... | 10.31 | 3.35 | 1.33 | 1.18 | | 5.19 |
| Neoplasms..... | .. | .. | .. | .. | .. | 0.24 |
| Allergic, Endocrine, Metabolic and Nutritional Diseases..... | 0.50 | .. | .. | .. | .. | 0.49 |
| Diseases of the Blood and Blood-forming Organs | .. | .. | .. | .. | .. | 0.24 |
| Diseases of the Nervous System and Sense Organs..... | 3.87 | 2.59 | 2.53 | 3.25 | 4.37 | 3.29 |
| Diseases of the Circulatory System..... | .. | .. | 1.18 | 2.10 | 2.92 | 0.93 |
| Diseases of the Respiratory System..... | 60.03 | 58.94 | 58.27 | 56.94 | 55.24 | 58.70 |
| Diseases of the Digestive System..... | 7.98 | 7.80 | 6.78 | 6.75 | 7.10 | 7.40 |
| Diseases of the Genito-Urinary System..... | 0.41 | .. | 2.31 | 2.33 | .. | 1.44 |
| Deliveries and Complications of Pregnancy, Childbirth and the Puerperium..... | .. | 3.51 | 3.67 | .. | — | 1.45 |
| Diseases of the Skin and Cellular Tissue..... | 2.17 | 2.25 | 2.01 | .. | 1.78 | 2.06 |
| Diseases of the Bones and Organs of Movement.. | 0.34 | .. | 1.46 | 2.62 | 2.82 | 1.11 |
| Symptoms, Senility and Ill-defined Conditions.. | 9.01 | 10.86 | 13.20 | 14.39 | 15.63 | 11.53 |
| Injuries, Poisonings and Violence..... | 4.99 | 6.70 | 5.94 | 6.85 | 6.17 | 5.79 |
| All Classes..... | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |

Estimated Prevalence of Illness in Canada at the Commencement of the Survey Year.—Table 14 gives the estimated rates per 1,000 population and percentages of the prevalence of illness as experienced by the Canadian population at the commencement of the survey year. All those illnesses which were reported in progress on the day the survey began were recorded. The table gives separate rates per 1,000 population and percentages for ten diagnostic classes and a few diagnostic groups for which reliable estimates could be prepared.

14.—Estimated Illnesses Reported at Commencement of Survey Year 1950-51 per 1,000 Population, by Diagnostic Class

| Int. List No. | Class of Illness and Diagnostic Group | Estimated Illnesses Reported at Commencement of Survey Year per 1,000 Population | P.C. of All Illnesses Reported at Commencement of Survey Year |
|---------------|---|--|---|
| 001-138 | Infective and Parasitic Diseases..... | 3.9 | 4.01 |
| 240-289 | Allergic, Endocrine, Metabolic and Nutritional Diseases..... | 5.5 | 5.64 |
| 330-398 | Diseases of the Nervous System and Sense Organs..... | 6.2 | 6.37 |
| 400-468 | Diseases of the Circulatory System..... | 12.6 | 12.91 |
| 400-434 | Diseases of heart, without hypertension, rheumatic fever..... | 5.0 | 5.11 |
| 440-447 | Hypertensive disease..... | 3.3 | 3.40 |
| 470-527 | Diseases of the Respiratory System..... | 16.9 | 17.28 |
| 470 | Acute nasopharyngitis (common cold)..... | 8.5 | 8.72 |
| 530-587 | Diseases of the Digestive System..... | 8.6 | 8.84 |
| 543-545 | Disorders of functions of stomach and other diseases of stomach and duodenum..... | 2.5 | 2.53 |
| 590-637 | Diseases of the Genito-Urinary System..... | 4.8 | 4.87 |
| 610-637 | Diseases of genital organs..... | 2.9 | 3.00 |
| 690-716 | Diseases of the Skin and Cellular Tissue..... | 4.6 | 4.72 |
| 720-749 | Diseases of the Bones and Organs of Movement..... | 10.3 | 10.57 |
| 720-725 | Arthritis..... | 4.2 | 4.28 |
| 727 | Rheumatism, unspecified..... | 3.6 | 3.73 |
| 780-795 | Symptoms, Senility and Ill-defined Conditions..... | 15.6 | 15.96 |
| 787 | Symptoms referable to limbs and back..... | 5.3 | 5.42 |
| 001-N999 | All Illnesses..... | 97.7 | 100.00 |

Subsection 3.—Notifiable Diseases

Notifiable diseases include essentially communicable diseases. The method of collecting notifiable disease statistics is outlined in the 1955 Year Book at pp. 246-247 and numbers of cases and rates for selected diseases for 1926 to 1955 are given in the 1956 edition at p. 267.

Table 15 shows the number of cases reported for selected notifiable diseases and the rates per 100,000 population for 1956. That year was free from major epidemics on a national scale and the number of cases of poliomyelitis dropped to a new low.

15.—Reported Cases of Selected Notifiable Diseases and Rates per 100,000 Population by Province 1956

| Int. List No. | Disease | Nfld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Yukon | Canada ¹ |
|--|--|-------|--------------|-------|--------------|--------------|--------|-------|-------|--------------|--------|-------|---------------------|
| NUMBERS OF CASES | | | | | | | | | | | | | |
| 087 | Chickenpox..... | 255 | 100 | 1,679 | ² | 9,582 | 16,432 | 1,249 | 59 | ² | 7,113 | 30 | 36,499 |
| 055 | Diphtheria..... | 1 | — | — | 1 | 43 | 4 | 48 | 15 | 22 | 1 | — | 135 |
| 045-048 | Dysentery ³ | 1 | 22 | — | 18 | 23 | 70 | 16 | 48 | 71 | 342 | — | 611 |
| 046 | Amoebic..... | — | — | — | — | ² | 2 | — | — | — | — | — | ² |
| 045 | Bacillary..... | — | 22 | — | 18 | 23 | 68 | 16 | 48 | 71 | 342 | — | 608 |
| 082 | Encephalomyelitis, infectious..... | — | ² | — | — | 2 | 20 | 8 | 6 | 1 | 9 | — | 46 |
| 480-483 | Influenza, epidemic..... | 2 | 3,242 | 3,374 | ⁹ | — | 344 | 102 | 23 | ² | 4,021 | 60 | 11,177 |
| 085 | Measles..... | 566 | 575 | 2,035 | ² | 15,131 | 25,846 | 1,797 | 297 | 2,075 | 5,616 | 48 | 53,986 |
| 057 | Meningococcal meningitis and meningococemia..... | 73 | 4 | 10 | 31 | 26 | 74 | 7 | 12 | 2 | 45 | 1 | 285 |
| 089 | Mumps..... | 43 | 347 | 560 | ² | 5,302 | 13,705 | 1,350 | 37 | ² | 6,768 | — | 28,112 |
| 080 | Poliomyelitis, epidemic ⁴ | 4 | 4 | 20 | 24 | 152 | 193 | 22 | 21 | 76 | 84 | 7 | 607 |
| 080.0 | With paralysis..... | 3 | 3 | 9 | 7 | 125 | 127 | 15 | 7 | 55 | 37 | 1 | 369 |
| 080.1 | Without paralysis..... | 1 | 1 | 11 | 17 | 22 | 66 | 7 | 7 | 41 | 47 | 6 | 226 |
| 086 | Rubella (German measles)..... | 153 | ² | 929 | ² | 22,305 | 16,043 | 170 | 13 | 982 | 11,297 | 136 | 52,028 |
| 050,051 | Scarlet fever ⁴ | 187 | 755 | 1,788 | 48 | 2,327 | 4,669 | 185 | 240 | 655 | 816 | 2 | 11,672 |
| 084 | Smallpox..... | — | ² | — | — | — | — | — | — | — | — | — | — |
| 001-019 | Tuberculosis ⁵ | 385 | 44 | 112 | 579 | 3,512 | 1,334 | 647 | 355 | 1,071 | 1,331 | 7 | 9,377 |
| 001,002 | Pulmonary..... | 384 | 31 | 102 | 542 | 5,398 | 2 | 617 | 275 | 982 | 1,207 | 7 | 7,545 |
| 003-019 | Non-pulmonary..... | 1 | 13 | 9 | 37 | 114 | 5 | 30 | 77 | 89 | 124 | — | 494 |
| 040,041 | Typhoid and paratyphoid..... | 18 | — | — | 13 | 229 | 92 | 1 | 11 | 27 | 64 | — | 455 |
| 044 | Undulant fever..... | — | — | — | — | 92 | 33 | 9 | 1 | 2 | 4 | — | 141 |
| 020-039 | Veneral diseases..... | 475 | 41 | 504 | 224 | 3,764 | 2,244 | 1,444 | 1,269 | 2,988 | 3,643 | 46 | 16,642 |
| 020-029 | Syphilis..... | 43 | 4 | 88 | 33 | 989 | 386 | 87 | 108 | 145 | 195 | 4 | 2,082 |
| 030-035 | Gonorrhoea..... | 432 | 37 | 416 | 191 | 2,774 | 1,858 | 1,356 | 1,158 | 2,842 | 3,442 | 41 | 14,547 |
| 036-039 | Other venereal diseases ⁶ | — | — | — | — | — | — | — | 3 | 1 | 6 | 1 | 13 |
| 056 | Whooping cough..... | 154 | 537 | 174 | 142 | 3,944 | 1,265 | 402 | 368 | 540 | 987 | — | 8,513 |
| RATES PER 100,000 POPULATION (CENSUS 1956) | | | | | | | | | | | | | |
| 087 | Chickenpox..... | 61.4 | 100.7 | 241.7 | ² | 207.0 | 304.0 | 146.9 | 6.7 | ² | 508.6 | 245.9 | 253.8 |
| 055 | Diphtheria..... | 0.2 | — | — | 0.2 | 0.9 | 0.1 | 5.6 | 1.7 | 2.0 | 0.1 | — | 0.8 |
| 045-048 | Dysentery ³ | 0.2 | 22.2 | — | 3.2 | 0.5 | 1.3 | 1.9 | 5.5 | 6.3 | 24.5 | — | 3.8 |
| 046 | Amoebic..... | — | — | — | — | ² | — | — | — | — | — | — | — |
| 045 | Bacillary..... | — | 22.2 | — | 3.2 | 0.5 | 1.3 | 1.9 | 5.5 | 6.3 | 24.5 | — | 3.8 |
| 082 | Encephalomyelitis, infectious..... | — | ² | — | — | 7 | 0.4 | 0.9 | 0.7 | 0.1 | 0.6 | — | 0.3 |
| 480-483 | Influenza, epidemic..... | 0.5 | 3,264.9 | 485.7 | 1.6 | — | 6.4 | 12.0 | 2.6 | ² | 287.5 | 491.8 | 74.8 |
| 085 | Measles..... | 136.4 | 579.1 | 292.9 | ² | 326.9 | 478.2 | 211.4 | 33.7 | 184.8 | 401.6 | 393.4 | 348.1 |
| 057 | Meningococcal meningitis and meningococemia..... | 17.6 | 4.0 | 1.4 | 5.6 | 0.6 | 1.4 | 0.8 | 1.4 | 0.2 | 3.2 | 8.2 | 1.8 |
| 089 | Mumps..... | 10.4 | 349.4 | 80.6 | ² | 114.6 | 253.6 | 158.8 | 4.2 | ² | 484.0 | — | 195.4 |
| 080 | Poliomyelitis, epidemic ⁴ | 1.0 | 4.0 | 2.9 | 4.3 | 3.3 | 3.6 | 2.6 | 2.4 | 6.8 | 6.0 | 57.4 | 3.8 |
| 080.0 | With paralysis..... | 0.7 | 3.0 | 1.3 | 1.3 | 2.7 | 2.3 | 1.8 | 0.8 | 3.1 | 2.6 | 8.2 | 2.3 |
| 080.1 | Without paralysis..... | — | — | — | — | — | — | — | — | — | — | — | — |

For footnotes, see end of table, p. 269.

**15.—Reported Cases of Selected Notifiable Diseases and Rates per 100,000
Population by Province 1956—concluded**

| Int. List No. | Disease | Nfld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Yu- kon | Canada |
|--|--|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|------------|--------|
| RATES PER 100,000 POPULATION (CENSUS 1956)—concluded | | | | | | | | | | | | | |
| 086 | Rubella (German measles)..... | 36.9 | 2 | 133.7 | 2 | 481.9 | 296.8 | 20.0 | 1.5 | 87.4 | 807.8 | 1,114.8 | 337.7 |
| 050, 051 | Scarlet fever ¹ | 45.0 | 760.3 | 257.4 | 8.7 | 50.3 | 86.4 | 21.8 | 27.3 | 58.3 | 58.3 | 16.4 | 72.7 |
| 084 | Smallpox..... | — | 2 | — | — | — | — | — | — | — | — | — | — |
| 001-019 | Tuberculosis ² | 92.7 | 44.3 | 16.1 | 104.4 | 75.9 | 24.7 | 76.1 | 40.3 | 95.4 | 95.2 | 57.4 | 58.4 |
| 001, 002 | Pulmonary..... | 92.6 | 31.2 | 14.7 | 97.7 | 73.4 | 24.7 | 72.6 | 31.2 | 87.4 | 86.3 | 57.4 | 70.8 |
| 003-019 | Non-pulmonary..... | 0.2 | 13.1 | 1.3 | 6.7 | 2.6 | — | 3.5 | 8.7 | 7.9 | 8.9 | — | 4.6 |
| 040, 041 | Typhoid and paratyphoid..... | 4.3 | — | — | 2.3 | 4.9 | 1.7 | 0.1 | 1.2 | 2.4 | 4.6 | — | 2.8 |
| 044 | Undulant fever..... | — | — | — | — | 2.0 | 0.6 | 1.1 | 0.1 | 0.2 | 0.3 | — | 0.9 |
| 020-039 | Venereal diseases..... | 114.4 | 41.3 | 72.5 | 40.4 | 81.3 | 41.5 | 169.9 | 144.1 | 266.0 | 260.5 | 377.0 | 103.6 |
| 020-029 | Syphilis..... | 10.4 | 4.0 | 12.7 | 6.0 | 21.4 | 7.1 | 10.2 | 12.3 | 12.9 | 13.9 | 52.8 | 13.0 |
| 030-035 | Gonorrhoea..... | 104.1 | 37.3 | 59.9 | 34.4 | 59.9 | 34.4 | 159.5 | 131.6 | 253.0 | 246.1 | 336.1 | 90.6 |
| 036-039 | Other venereal diseases ³ | — | — | — | — | — | — | 0.1 | 0.3 | 0.1 | 0.4 | 8.2 | 0.1 |
| 056 | Whooping cough..... | 37.1 | 540.8 | 25.0 | 25.6 | 85.2 | 23.4 | 47.3 | 41.8 | 48.1 | 70.6 | — | 53.0 |

¹ Exclusive of the Northwest Territories.² Disease not reportable in provinces indicated.³ In-

cludes cases where type was not specified.

⁴ Includes cases of septic sore throat (epidemic).⁵ Type

not specified.

⁶ Includes chancroid, granuloma inguinale and lymphogranuloma venereum.⁷ Less

than 0.05 per 100,000 population.

Subsection 4.—Visiting Nursing Services

Annual statistics on home nursing and health counselling services based on the experience of the Victorian Order of Nurses for Canada have been compiled and published by the Dominion Bureau of Statistics beginning with the year 1952. This survey does not provide a complete picture of such services in Canada because a number of other agencies, though smaller in size and coverage, are engaged in home nursing. The Victorian Order of Nurses, the only national organization of its kind, had 116 branches located in nine provinces in 1956. The Order provides visiting nursing services in the area of maternity care as well as care for medical and surgical cases. In addition, a number of community services such as classes for expectant mothers, industrial nursing, etc., are operated by the Order.

The services of the Order are always rendered under the direction of the patient's physician on a visit basis, and include bedside nursing, prenatal, postnatal and newborn care, and health instruction. The services are designed to meet the needs of patients who cannot or need not go to hospital, and patients who are awaiting admission to hospital, as well as those returning from hospital and still requiring nursing service such as dressings, treatments or other care. Part of the nurses' duties are the demonstration and supervision of nursing care to be carried out by members of the patient's family.

Since 1952 an increasing number of *visits* by the nurses was recorded each year; in 1956 over one million (1,041,782) visits were made, an increase of almost 16 p.c. over 1952. However, because of the trend toward the treatment of more and more chronic cases, the number of *cases* attended decreased between 1952 and 1954 and rose only slightly again in 1955 and 1956. The medical and surgical group, excluding normal maternity and other health instruction cases, was mainly responsible for the increase in visits during the five-year period. This group recorded an increase of 29.1 p.c. in visits but a decrease

of 10.8 p.c. in cases. This trend is characterized by the increasing proportion of older patients treated for medical and surgical conditions and thus shows the growing impact of an aging population on health services. The average age of patients of both sexes was 54.3 in 1952, 59.2 in 1953, 62.5 in 1954, 64.0 in 1955 and 65.1 in 1956. The average age of male patients increased from 45.2 to 65.0 during the period and of female patients from 57.2 to 65.2. The percentage of cases under 45 years of age decreased from 40.8 in 1952 to 29.9 in 1956, while the percentage of cases 45 years or over increased from 58.4 to 69.7. Corresponding percentage changes are observed in the recorded visits.

The average number of visits per medical and surgical case increased from 11.1 in 1952 to 16.1 in 1956, or by 45 p.c.; the average visits per maternity case decreased from 2.9 to 2.5 or by 14 p.c.

The increase in the number of post-hospital cases from 10,915 in 1952 to 15,396 in 1956 and the increase in the percentage of such cases to total cases from 20.5 to 32.4 is an indication of the greater use being made of home care as supplementing hospital services.

The causes accounting for the largest proportion of visits in 1956, with their average visits per case were as follows:—

| <i>Cause</i> | <i>Visits</i> | <i>Percentage of Total Visits</i> | <i>Average Visits per Case</i> |
|---|---------------|---|--|
| | No. | | No. |
| Diabetes..... | 121,708 | 15.9 | 46.2 |
| Diseases of the heart..... | 115,259 | 15.0 | 21.2 |
| Diseases of the central nervous system and sense organs..... | 93,279 | 12.2 | 28.7 |
| Anæmias and other diseases of the blood and blood- forming organs..... | 77,910 | 10.2 | 22.3 |
| Malignant neoplasms..... | 56,357 | 7.4 | 17.5 |
| Arthritis and rheumatism..... | 39,454 | 5.2 | 28.5 |

In the field of maternity and newborn care, there were 34,140 normal maternity cases attended by Victorian Order nurses in 1956; of these 11,770 were attended at the prenatal and 22,370 at the postnatal stage. These figures do not include 1,925 maternity cases involving complications. Care and health supervision was provided to 29,994 newborn babies during that year. A total of 18,044 sessions were held for expectant mothers, which had an enrolment of about 7,000 persons.

PART II.—PUBLIC WELFARE AND SOCIAL SECURITY

Responsibility for social welfare in Canada is shared between the Federal Government, which is concerned largely with income security programs and the provision of services to special groups, and the provinces which delegate an important share of responsibility to the municipalities.

The creation of the Department of National Health and Welfare in 1944 established for the first time in the Federal Government a department in which public welfare is a major responsibility. The Department is charged with the administration of federal Acts relating to welfare which are not assigned by law to other departments. In addition to the general promotion of social welfare, the Welfare Branch of the Department administers

the family allowances program, the old age security program and the federal aspects of old age assistance, allowances for blind and disabled persons and of the new program of unemployment assistance. Grants to the provinces to promote physical fitness were introduced in 1943 but the Act providing for them was repealed in June 1954. The Department continues to provide physical fitness and recreation consultative services.

Unemployment insurance is administered by the Unemployment Insurance Commission; welfare and health services for veterans by the Department of Veterans Affairs; the welfare of Indians by the Department of Citizenship and Immigration and the welfare of Eskimos by the Department of Northern Affairs and National Resources.

Administration and financial responsibility in other fields of welfare such as mothers' allowances, child protection, services for older persons, community services and general assistance or relief are provided by the provinces and their local subdivisions.

Section 1.—Federal Government Programs

Subsection 1.—Family Allowances

The Family Allowances Act of 1944 is designed to assist in providing equal opportunity for all Canadian children. The allowances involve no 'means test' and are paid entirely from the Federal Consolidated Revenue Fund. They do not constitute taxable income but there is a smaller income tax exemption for children eligible for allowances.

Allowances are payable in respect of every child under the age of 16 years who was born in Canada, or who has been a resident of the country for one year, or whose father or mother was domiciled in Canada for three years immediately prior to the birth of the child. Payment is made each month, normally to the mother, although any person who substantially maintains the child may be paid the allowance on his behalf. Allowances are paid at the monthly rate of \$6 for each child under 10 years and \$8 for each child 10 or over but under 16 years. (Prior to September 1957 the rates were \$5 for each child under 6 years, \$6 for each child from 6 to 9 years, \$7 for each child from 10 to 12 years, and \$8 for each child 13 or over but under 16 years.) The allowances are paid by cheque, except for some Eskimo and Indian children in remote areas for whom payment is made largely in kind because of lack of exchange facilities and the desirability for education in the use of nutritive foods.

If the allowances are not spent for the purposes outlined in the Act payment may be discontinued or made to some other person or agency on behalf of the child. Allowances are not payable for any child who fails to comply with provincial school regulations or on behalf of a girl who is married and under 16 years of age.

The program is administered by the Family Allowances and Old Age Security Division of the Department of National Health and Welfare, through regional offices located in each provincial capital. A welfare section in each regional office deals with welfare questions arising from administration of the allowances. A Supervisor of Welfare Services advises each Regional Director and reports through him to the Chief Supervisor of Welfare Services, who acts in a similar advisory capacity to the National Director. The actual preparing and issuing of the cheques is the responsibility of the treasury division of each regional office which reports to the Chief Treasury Officer of the Department of Finance attached to the Department of National Health and Welfare. The Regional Director for the Yukon and Northwest Territories, located in Ottawa, is responsible for payments to families in those areas.

Through the Department of Citizenship and Immigration the Federal Government pays family assistance at the rate of \$5 per month for each child under 16 years of age supported by an immigrant who has landed for permanent residence in Canada, or by a Canadian returning to Canada to reside permanently. This allowance is paid quarterly and for a maximum period of one year.

1.—Family Allowances Statistics by Province, Years Ended Mar. 31, 1955-57

| Province or Territory and Year | Families Receiving Allowance in March | Children for Whom Allowance Paid in March | Average Number of Children per Family in March | Average Allowance ¹ | | Net Total Allowances Paid during Fiscal Year |
|--|---------------------------------------|---|--|--------------------------------|-------------|--|
| | | | | Per Family | Per Child | |
| | No. | No. | No. | \$ | \$ | \$ |
| Newfoundland.....1955 | 56,692 | 169,760 | 2.99 | 17.91 | 5.98 | 11,967,775 |
| 1956 | 58,223 | 175,474 | 3.01 | 18.07 | 5.99 | 12,414,789 |
| 1957 | 59,572 | 181,237 | 3.04 | 18.31 | 6.02 | 12,881,415 |
| Prince Edward Island...1955 | 13,142 | 35,812 | 2.76 | 16.54 | 6.07 | 2,590,704 |
| 1956 | 13,151 | 36,144 | 2.75 | 16.67 | 6.07 | 2,621,722 |
| 1957 | 13,067 | 36,173 | 2.77 | 16.86 | 6.09 | 2,640,585 |
| Nova Scotia.....1955 | 97,478 | 238,896 | 2.45 | 14.84 | 6.05 | 17,147,920 |
| 1956 | 99,071 | 244,551 | 2.47 | 14.97 | 6.07 | 17,596,684 |
| 1957 | 99,957 | 248,827 | 2.49 | 15.13 | 6.08 | 17,973,392 |
| New Brunswick.....1955 | 76,229 | 210,640 | 2.76 | 16.68 | 6.03 | 15,073,324 |
| 1956 | 77,079 | 214,966 | 2.79 | 16.88 | 6.05 | 15,451,544 |
| 1957 | 77,833 | 218,703 | 2.81 | 17.05 | 6.07 | 15,779,360 |
| Quebec.....1955 | 605,916 | 1,624,055 | 2.68 | 16.27 | 6.07 | 116,057,182 |
| 1956 | 623,961 | 1,675,840 | 2.68 | 16.36 | 6.09 | 120,389,838 |
| 1957 | 642,573 | 1,729,386 | 2.69 | 16.39 | 6.09 | 124,368,344 |
| Ontario.....1955 | 744,736 | 1,574,703 | 2.11 | 12.68 | 6.00 | 110,492,480 |
| 1956 | 773,535 | 1,657,561 | 2.14 | 12.87 | 6.00 | 116,604,314 |
| 1957 | 800,279 | 1,734,813 | 2.17 | 13.05 | 6.02 | 122,539,123 |
| Manitoba.....1955 | 119,594 | 264,274 | 2.21 | 13.26 | 6.00 | 18,705,349 |
| 1956 | 122,018 | 272,916 | 2.24 | 13.46 | 6.02 | 19,418,713 |
| 1957 | 122,386 | 276,912 | 2.26 | 13.65 | 6.03 | 19,888,717 |
| Saskatchewan.....1955 | 126,424 | 290,359 | 2.30 | 13.92 | 6.06 | 20,894,790 |
| 1956 | 127,175 | 296,027 | 2.33 | 14.10 | 6.06 | 21,401,114 |
| 1957 | 126,271 | 298,085 | 2.36 | 14.31 | 6.06 | 21,644,971 |
| Alberta.....1955 | 161,737 | 361,551 | 2.23 | 13.39 | 5.99 | 25,390,585 |
| 1956 | 167,705 | 380,095 | 2.27 | 13.57 | 5.99 | 26,752,793 |
| 1957 | 172,533 | 395,234 | 2.29 | 13.76 | 6.00 | 27,953,311 |
| British Columbia.....1955 | 188,471 | 388,442 | 2.06 | 12.45 | 6.04 | 27,405,872 |
| 1956 | 196,955 | 412,819 | 2.10 | 12.67 | 6.04 | 29,097,077 |
| 1957 | 207,626 | 440,749 | 2.12 | 12.86 | 6.06 | 31,029,472 |
| Yukon and Northwest Territories.....1955 | 4,608 | 10,550 | 2.29 | 13.69 | 5.98 | 739,984 |
| 1956 | 4,745 | 11,043 | 2.33 | 14.04 | 6.03 | 786,437 |
| 1957 | 4,794 | 11,317 | 2.36 | 14.00 | 5.93 | 819,150 |
| Canada.....1955 | 2,195,027 | 5,169,042 | 2.35 | 14.20 | 6.03 | 366,465,965 |
| 1956 | 2,263,618 | 5,377,436 | 2.37 | 14.35 | 6.04 | 382,535,026 |
| 1957 | 2,326,891 | 5,571,436 | 2.39 | 14.49 | 6.05 | 397,517,840 |

¹ Based on gross payments for March.

Subsection 2.—Old Age Security

The Old Age Security Act of 1952 as amended November 1957, provides a universal pension of \$55 a month (\$40 prior to July 1, 1957, \$46 from July 1 to Oct. 31, 1957) payable by the Federal Government to all persons aged 70 or over, subject to a residence qualification. To qualify for pension a person must have resided in Canada for 10 years (previously 20 years) immediately preceding its commencement or, if absent during that period, he must have actually been present in Canada prior to it for double any period of absence and must have resided in Canada at least one year immediately preceding commencement of pension. The pension is suspended when a pensioner leaves Canada but on his return may be resumed and, if absence has not exceeded six months, may be paid retroactively for as many as six months of absence in any calendar year.

The pension is financed on a pay-as-you-go method through a 2-p.c. sales tax, a 2-p.c. tax on taxable corporation income and, subject to a limit of \$60 a year, a 2-p.c. tax on taxable personal income, which are paid into the Old Age Security Fund. The pension is paid from the Consolidated Revenue Fund and charged to the Old Age Security Fund. The program is administered by the Family Allowances and Old Age Security Division of the Department of National Health and Welfare, through the Family Allowances and Old Age Security regional offices located in each provincial capital.

Persons in receipt of old age assistance who reach age 70 are automatically transferred to old age security. Others make application to the regional office.

As at October 1957, Alberta, British Columbia and Saskatchewan made supplementary payments to recipients of old age security who qualified under a means and residence test. In British Columbia the allowance could not exceed \$20 per month, in Alberta \$15 per month, in Saskatchewan it was a minimum of \$2.50 per month rising to a maximum of \$10 per month per person. In Ontario, the provincial government shared, to the extent of 60 p.c., in the first \$20 per month of supplement paid by a municipality to a needy recipient of old age security. In some provinces and in the Yukon, recipients of the pension who were in special need might be eligible for relief.

2.—Operations of the Old Age Security Fund, Years Ended Mar. 31, 1954-57

| Item | Year Ended Mar. 31— | | | |
|---|-------------------------|-------------------------|-------------------------|--------------------|
| | 1954 | 1955 | 1956 | 1957 |
| | \$ | \$ | \$ | \$ |
| Revenue | 338,970,791 | 353,205,333 | 366,218,474 | 379,111,374 |
| Individual income tax..... | 90,700,000 | 100,900,000 | 102,500,000 | 124,999,000 |
| Corporation income tax..... | 55,600,000 | 46,000,000 | 53,328,000 | 67,336,000 |
| Sales tax..... | 146,832,886 | 143,053,678 | 160,377,617 | 179,270,141 |
| Grant from Consolidated Revenue Fund..... | — | — | — | 6,000,000 |
| Loan from Consolidated Revenue Fund..... | 45,837,905 ¹ | 63,251,655 ¹ | 50,012,857 ¹ | 1,506,233 |
| Expenditure (Benefit Payments) | 338,970,791 | 353,205,333 | 366,218,474 | 379,111,374 |

¹ Loans from Consolidated Revenue were written off by grants from the Consolidated Revenue Fund in following fiscal years.

3.—Old Age Security Statistics by Province, Years Ended Mar. 31, 1955-57

| Province and Year | Pensioners in March | | Province or Territory and Year | Pensioners in March | |
|---------------------------|---------------------------|--|--------------------------------------|---------------------------|--|
| | No. | Pensions Paid during Fiscal Year (net) | | No. | Pensions Paid during Fiscal Year (net) |
| | No. | \$ | | No. | \$ |
| Newfoundland..... | 1955 15,693 | 7,459,680 | Manitoba..... | 1955 44,591 | 21,051,155 |
| | 1956 15,973 | 7,599,405 | | 1956 46,396 | 21,953,425 |
| | 1957 16,248 | 7,738,205 | | 1957 47,908 | 22,842,472 |
| Prince Edward Island..... | 1955 6,786 | 3,261,800 | Saskatchewan..... | 1955 44,821 | 21,202,779 |
| | 1956 6,884 | 3,313,980 | | 1956 47,101 | 22,331,244 |
| | 1957 6,993 | 3,371,370 | | 1957 48,984 | 23,334,799 |
| Nova Scotia..... | 1955 37,801 | 18,149,526 | Alberta..... | 1955 45,384 | 21,418,246 |
| | 1956 38,212 | 18,411,345 | | 1956 48,163 | 22,681,995 |
| | 1957 38,860 | 18,706,153 | | 1957 50,524 | 23,942,472 |
| New Brunswick..... | 1955 27,014 | 12,945,905 | British Columbia..... | 1955 90,201 | 42,449,810 |
| | 1956 27,513 | 13,246,139 | | 1956 94,611 | 44,657,286 |
| | 1957 28,170 | 13,528,005 | | 1957 99,320 | 46,923,834 |
| Quebec..... | 1955 158,109 | 74,724,977 | Yukon and North- | 1955 540 | 245,360 |
| | 1956 163,173 | 77,110,979 | west Territories. | 1956 556 | 268,440 |
| | 1957 168,407 | 79,650,588 | | 1957 579 | 280,680 |
| Ontario..... | 1955 274,680 | 130,296,095 | Canada..... | 1955 745,620 | 353,205,333 |
| | 1956 283,171 | 134,464,236 | | 1956 771,753 | 366,218,474 |
| | 1957 291,493 | 138,792,796 | | 1957 797,486 | 379,111,374 |

Subsection 3.—Government Annuities*

Under the Government Annuities Act (R.S.C. 1952, c. 132), passed in 1908, the Federal Government carries on a service to assist Canadians to make provision for old age. The Act is administered by the Minister of Labour.

A Canadian Government annuity is a fixed yearly income purchased from and paid by the Government of Canada. The annuity is payable in monthly instalments for life, or for life and guaranteed for a period of years. The minimum annuity is \$10 and the maximum \$1,200 a year or the actuarial equivalent if the annuity is to reduce by the amount of payments under the Old Age Security Act. Annuity contracts may be deferred or immediate. Deferred annuities are purchased by periodic or single premiums. Immediate annuity contracts provide immediate income. Annuities may now be arranged to reduce by \$55 per month at age 70 to fit in with payments under the Old Age Security Act.

The property and interest of the annuitant are neither transferable nor attachable. In the event of the death of the annuitant before a deferred annuity vests, all money paid is refunded with interest. Provision is made in the Act for group annuity contracts whereby employers may contract for the purchase of annuities on behalf of their employees, or associations on behalf of their members, the purchase money being derived partly from wages and partly from employer contributions or entirely from employer contributions. Group annuity plans now in effect cover a variety of industries and many municipal corporations throughout Canada. Annuities arising from individual contracts may be taxable in either of two ways: (1) if registered under Sect. 79B of the Income Tax Act for tax exemption on premiums, the annuity is fully taxable, or (2) if not registered the annuity is taxable on the interest portion only. Annuities arising from approved pension plans are fully taxable but the employee and the employer are entitled to tax exemption year by year on their annual contributions to the pension plan.

From Sept. 1, 1908, the date of the inception of the system, to Mar. 31, 1957, the total number of annuity contracts and certificates issued excluding replacements was 434,116. On the latter date 73,997 annuities were being paid amounting to \$37,272,532 annually and 306,338 deferred annuities were being purchased. The net total amount of purchase money received up to Mar. 31, 1957, was \$1,040,628,000.

* Revised in the Government Annuities Branch, Department of Labour, Ottawa.

Up to Mar. 31, 1957, 1,061 corporations, institutions and associations, as compared with 1,014 up to Mar. 31, 1956, had entered into agreements with the Government to purchase annuities. Under these arrangements 179,434 employees or members were holding certificates for purchase of deferred annuities as compared with 177,379 one year earlier. The number of certificates issued under groups in the year 1956-57 was 12,476 as compared with 15,672 for 1955-56.

4.—Individual Annuity Contracts and Certificates Issued and Net Receipts, Years Ended Mar. 31, 1954-57 with Totals for 1908-57

| Year Ended Mar. 31— | Individual Contracts Issued | Group Certificates Issued | Total Contracts and Certificates Issued | Net Receipts |
|-----------------------------|-----------------------------------|---------------------------------|---|------------------|
| | No. | No. | No. | \$'000 |
| 1908-53 ¹ | 151,163 | 199,061 | 350,224 | 773,286 |
| 1954..... | 5,305 | 13,161 | 18,466 | 64,380 |
| 1955..... | 6,242 | 18,300 | 24,542 | 68,594 |
| 1956..... | 6,799 | 15,672 | 22,471 | 69,945 |
| 1957..... | 5,937 | 12,476 | 18,413 | 64,421 |
| Totals, 1908-57..... | 175,446 | 258,670 | 434,116 | 1,040,628 |

¹ Sept. 1, 1908 to Mar. 31, 1953.

5.—Government Annuities Fund Statements, Years Ended Mar. 31, 1953-57

| Item | 1953 | 1954 | 1955 | 1956 | 1957 |
|---|-------------------|-------------------|--------------------|--------------------|--------------------|
| | \$ | \$ | \$ | \$ | \$ |
| Assets | | | | | |
| Fund at beginning of fiscal year..... | 675,931,703 | 736,540,927 | 798,454,014 | 864,543,038 | 930,221,101 |
| Receipts during the year, less payments..... | 60,609,224 | 61,913,087 | 66,089,024 | 65,678,063 | 59,064,838 |
| Fund at end of fiscal year..... | 736,540,927 | 798,454,014 | 864,543,038 | 930,221,101 | 989,285,939 |
| Liabilities | | | | | |
| Value of outstanding contracts..... | 736,540,927 | 798,454,014 | 864,543,038 | 930,221,101 | 989,285,939 |
| Receipts | | | | | |
| Immediate annuities..... | 5,823,356 | 5,620,132 | 8,086,323 | 9,171,329 | 5,943,037 |
| Deferred annuities..... | 57,347,618 | 59,580,358 | 61,956,789 | 61,405,964 | 58,982,047 |
| Interest on fund..... | 26,994,535 | 29,306,356 | 31,638,652 | 34,064,769 | 36,322,665 |
| Amount transferred to maintain reserve..... | 743,616 | 98,911 | 371,521 | — | — |
| Totals, Receipts..... | 90,909,125 | 94,605,757 | 102,053,285 | 104,642,062 | 101,247,749 |
| Payments | | | | | |
| Payments under vested annuity contracts.... | 27,693,728 | 29,749,159 | 31,943,115 | 34,498,070 | 36,963,652 |
| Return of premiums with interest..... | 2,222,482 | 2,123,349 | 2,572,284 | 3,033,205 | 3,252,738 |
| Return of premiums without interest..... | 383,691 | 820,162 | 1,448,862 | 1,317,682 | 1,177,408 |
| Unclaimed annuities transferred to Consolidated Revenue Fund..... | — | — | — | — | 29,398 |
| Surplus transferred to Consolidated Revenue Fund..... | — | — | — | 115,042 | 759,715 |
| Totals, Payments..... | 30,299,901 | 32,692,670 | 35,964,261 | 38,963,999 | 42,182,911 |

6.—Numbers and Values of Annuity Contracts as at Mar. 31, 1956 and 1957

| Classification | 1956 | | | 1957 | | |
|--------------------------------|----------------|---------------------|--|----------------|---------------------|--|
| | Contracts | Amount of Annuities | Value at Mar. 31 of Contracts in Force | Contracts | Amount of Annuities | Value at Mar. 31 of Contracts in Force |
| | No. | \$ | \$ | No. | \$ | \$ |
| Vested ordinary..... | 31,294 | 12,509,859 | 111,390,363 | 33,540 | 13,653,854 | 119,927,248 |
| Vested guaranteed..... | 33,483 | 18,296,068 | 203,011,985 | 32,854 | 18,263,884 | 201,939,906 |
| Vested last survivor..... | 4,290 | 2,133,472 | 27,739,918 | 4,203 | 2,114,078 | 27,279,201 |
| Vested reducing at age 70..... | 2,439 | 2,304,947 | 19,005,776 | 3,400 | 3,240,716 | 25,984,612 |
| Deferred..... | 301,014 | ¹ | 569,073,059 | 306,338 | ¹ | 614,154,972 |
| Totals..... | 372,520 | 35,244,346 | 930,221,101 | 380,335 | 37,272,532 | 989,285,939 |

¹ Undetermined.

Subsection 4.—Other Federal Government Programs

Unemployment Insurance and National Employment Service.—In 1940, by an amendment to the British North America Act, the Federal Government was given jurisdiction in the field of unemployment insurance and the Unemployment Insurance Act was passed, establishing a national system of unemployment insurance which is outlined in Chapter XVIII.

The National Employment Service is operated in conjunction with the unemployment insurance scheme. It is administered through local employment and claims offices and supervised by the Department of Labour. Statistics of positions offered and placements made are given in Chapter XVIII.

Prairie Farm Assistance.—The Prairie Farm Assistance Act is administered by the Department of Agriculture; a description of the legislation is given in Chapter IX.

Welfare Services for Indians and Eskimos.—The welfare of Indians and Eskimos is administered by the Department of Citizenship and Immigration and the Department of Northern Affairs and National Resources, respectively; this field is covered in the Population Chapter, pp. 146-150.

Section 2.—Federal-Provincial Programs

Subsection 1.—Old Age Assistance

The Old Age Assistance Act of 1952 as amended November 1957, provides for federal reimbursement to the provinces for assistance to persons aged 65 and over who are in need and who have resided in Canada for at least 10 years (previously, 20 years) or who, if absent from Canada during this period, have been present in Canada prior to the commencement of the 10-year period for double any period of absence. On reaching age 70 a pensioner is transferred to Old Age Security. The federal contribution may not exceed 50 p.c. of \$55 per month (\$40 prior to July 1, 1957, and \$46 from July 1 to Oct. 31, 1957) or of the assistance paid, whichever is less. The province administers the program and, within the limits of the federal Act, may fix the amount of assistance payable, the maximum income allowed and other conditions of eligibility.

For an unmarried person total income allowed, including assistance, may not exceed \$960 a year. For a married couple it may not exceed \$1,620 a year and, when the spouse is blind within the meaning of the Blind Persons Act, \$1,980 a year. Assistance is not paid to a person receiving an allowance under the Blind Persons or War Veterans Allowance Acts.

As at October 1957, Alberta, British Columbia and the Yukon made supplementary payments to recipients of old age assistance who qualified under a means and residence test. In British Columbia the allowance could not exceed \$20 per month, in Alberta, \$15 per month, and in the Yukon \$10 per month. In Ontario, the provincial government shared to the extent of 60 p.c. in the first \$20 per month of supplement paid by a municipality to a needy recipient of old age assistance. In some provinces and in the Yukon recipients of old age assistance who were in special need might be eligible for relief.

7.—Old Age Assistance Statistics by Province, Years Ended Mar. 31, 1955-57

| Province or Territory and Year | Recipients in Month of March | Average Amount of Monthly Assistance | P.C. of Recipients to Population Age 65-69 ¹ | Federal Government Contribution during Year |
|--------------------------------|------------------------------------|--|---|---|
| | No. | \$ | | \$ |
| Newfoundland.....1955 | 5,073 | 29.38 | 54.55 | 898,973 |
|1956 | 4,848 | 29.42 | 52.13 | 877,213 |
|1957 | 4,893 | 38.08 ² | 52.61 | 1,015,306 |
| Prince Edward Island.....1955 | 612 | 27.54 | 18.00 | 98,531 |
|1956 | 600 | 27.69 | 18.18 | 99,660 |
|1957 | 580 | 28.04 | 17.58 | 98,143 |
| Nova Scotia.....1955 | 5,178 | 33.63 | 26.55 | 1,063,165 |
|1956 | 5,081 | 33.73 | 25.92 | 1,046,927 |
|1957 | 4,950 | 33.95 | 25.26 | 1,020,529 |
| New Brunswick.....1955 | 5,808 | 36.89 | 39.24 | 1,288,095 |
|1956 | 5,891 | 36.86 | 39.54 | 1,303,189 |
|1957 | 5,624 | 36.92 | 37.74 | 1,271,433 |
| Quebec.....1955 | 32,882 | 37.48 | 32.46 | 7,392,923 |
|1956 | 32,227 | 37.51 | 31.17 | 7,357,373 |
|1957 | 31,031 | 37.47 | 30.01 | 7,107,138 |
| Ontario.....1955 | 22,061 | 36.86 | 13.52 | 4,858,693 |
|1956 | 21,731 | 36.90 | 13.19 | 4,918,978 |
|1957 | 20,744 | 36.93 | 12.59 | 4,659,319 |
| Manitoba.....1955 | 4,847 | 37.64 | 17.19 | 1,119,639 |
|1956 | 4,652 | 37.84 | 16.50 | 1,111,604 |
|1957 | 4,560 | 37.88 | 16.17 | 1,058,780 |
| Saskatchewan.....1955 | 4,853 | 37.22 | 16.79 | 1,089,704 |
|1956 | 4,925 | 37.05 | 17.22 | 1,150,402 |
|1957 | 4,963 | 37.11 | 17.35 | 1,154,375 |
| Alberta.....1955 | 5,341 | 36.67 | 17.74 | 1,165,332 |
|1956 | 5,521 | 36.16 | 18.28 | 1,240,452 |
|1957 | 5,400 | 36.14 | 17.88 | 1,211,188 |
| British Columbia.....1955 | 7,868 | 37.76 | 15.25 | 1,872,909 |
|1956 | 7,441 | 37.68 | 14.53 | 1,788,308 |
|1957 | 7,029 | 37.67 | 13.73 | 1,665,347 |
| Yukon Territory.....1955 | 12 | 38.41 | 6.45 | 2,220 |
|1956 | 20 | 40.00 | 10.00 | 3,080 |
|1957 | 31 | 40.00 | 15.50 | 6,640 |
| Northwest Territories.....1955 | 90 | 38.11 | 52.33 | 18,942 |
|1956 | 86 | 37.93 | 43.00 | 21,000 |
|1957 | 102 | 37.96 | 51.00 | 22,597 |
| Canada.....1955 | 94,625 | 36.56 | 21.01 | 20,869,126 |
|1956 | 93,023 | 36.56 | 20.49 | 20,918,186 |
|1957 | 89,907 | 37.03 | 19.81 | 20,290,795 |

¹ Estimated population as at June 1 of each year for the Provinces (1957 data related to 1956 population) and 1951 Census data for the Territories. ² During fiscal year maximum assistance raised from \$30 to \$40 per month.

Subsection 2.—Allowances for Blind Persons

The Blind Persons Act of 1952 as amended November 1957 provides for federal reimbursement to the provinces for allowances to blind persons aged 18 or over who are in need and who have resided in Canada for at least 10 years. The federal contribution may not exceed 75 p.c. of \$55 (\$40 prior to July 1, 1957; \$46 from July 1 to Oct. 31, 1957) per month or of the allowance paid, whichever is less. The province administers the program and, within the limits of the federal Act, may fix the amount of allowance payable and the maximum income allowed.

To qualify for an allowance a person must meet the required definition of blindness and have resided in Canada for 10 years immediately preceding its commencement or, if absent from Canada during this period, must have been present in Canada prior to its commencement for a period equal to double any period of absence.

For an unmarried person, total income, including the allowance, may not exceed \$1,200 a year; for a person with no spouse but with one or more dependent children, \$1,680; for a married couple, \$1,980. When the spouse is also blind, income of the couple may not exceed \$2,100. Allowances are not payable to a person receiving assistance under the Old Age Assistance Act, an allowance under the War Veterans Allowance Act, a pension under the Old Age Security Act or a pension for blindness under the Pensions Act.

As at October 1957, Alberta, British Columbia, Saskatchewan and the Yukon made supplementary payments to recipients of blindness allowances who qualified under income and/or residence tests. In British Columbia, a flat rate allowance of \$20 per month was payable, in Alberta the supplement could not exceed \$15 per month and in the Yukon \$10 per month. In Saskatchewan a minimum of \$2.50 per month is payable, rising to a maximum of \$10 per month per person. In Ontario the government shared to the extent of 60 p.c. in the first \$20 per month paid by a municipality to a needy recipient. In some provinces and in the Yukon, recipients in special need might also be eligible for relief.

8.—Statistics of Allowances for the Blind by Province, Years Ended Mar. 31, 1955-57

| Province and Year | Recipients in Month of March | Average Amount of Monthly Allowance | P.C. of Recipients to Population Age 20-69 ¹ | Federal Government Contribution during Year |
|-------------------------------|------------------------------------|---|---|---|
| | No. | \$ | | \$ |
| Newfoundland.....1955 | 338 | 39.70 | 0.174 | 119,970 |
|1956 | 353 | 39.65 | 0.178 | 126,038 |
|1957 | 370 | 39.47 | 0.186 | 132,559 |
| Prince Edward Island.....1955 | 95 | 37.65 | 0.171 | 30,516 |
|1956 | 96 | 37.52 | 0.181 | 32,279 |
|1957 | 90 | 37.38 | 0.170 | 31,267 |
| Nova Scotia.....1955 | 706 | 38.57 | 0.195 | 247,788 |
|1956 | 726 | 39.55 | 0.198 | 254,604 |
|1957 | 714 | 39.25 | 0.194 | 258,064 |
| New Brunswick.....1955 | 706 | 39.49 | 0.251 | 256,748 |
|1956 | 717 | 39.50 | 0.250 | 258,432 |
|1957 | 719 | 39.53 | 0.251 | 258,340 |
| Quebec.....1955 | 2,866 | 39.18 | 0.118 | 1,028,750 |
|1956 | 2,905 | 39.44 | 0.118 | 1,036,243 |
|1957 | 2,918 | 39.32 | 0.118 | 1,046,209 |
| Ontario.....1955 | 1,731 | 38.73 | 0.057 | 607,709 |
|1956 | 1,719 | 39.35 | 0.056 | 609,974 |
|1957 | 1,713 | 39.09 | 0.056 | 613,014 |
| Manitoba.....1955 | 405 | 39.13 | 0.084 | 145,014 |
|1956 | 411 | 39.60 | 0.085 | 145,547 |
|1957 | 402 | 39.60 | 0.083 | 147,725 |

¹For footnote, see end of table.

8.—Statistics of Allowances for the Blind by Province, Years Ended Mar. 31, 1955-57—
concluded

| Province or Territory and Year | Recipients in Month of March | Average Amount of Monthly Allowance | P.C. of Recipients to Population Age 20-69 ¹ | Federal Government Contribution during Year |
|--------------------------------|------------------------------------|---|---|---|
| | No. | \$ | | \$ |
| Saskatchewan.....1955 | 374 | 38.58 | 0.076 | 132,670 |
|1956 | 389 | 38.84 | 0.079 | 135,219 |
|1957 | 399 | 38.80 | 0.081 | 141,797 |
| Alberta.....1955 | 409 | 38.59 | 0.069 | 140,149 |
|1956 | 415 | 38.54 | 0.070 | 145,707 |
|1957 | 418 | 39.25 | 0.070 | 151,071 |
| British Columbia.....1955 | 474 | 39.02 | 0.063 | 170,796 |
|1956 | 475 | 39.52 | 0.062 | 166,772 |
|1957 | 482 | 39.17 | 0.062 | 169,387 |
| Yukon Territory.....1955 | 2 | 40.00 | 0.035 | 900 |
|1956 | 6 | 40.00 | 0.105 | 1,350 |
|1957 | 6 | 40.00 | 0.105 | 2,160 |
| Northwest Territories.....1955 | 16 | 40.00 | 0.188 | 5,175 |
|1956 | 18 | 40.00 | 0.212 | 6,330 |
|1957 | 25 | 38.60 | 0.294 | 7,447 |
| Canada.....1955 | 8,122 | 38.99 | 0.094 | 2,886,185 |
|1956 | 8,230 | 39.36 | 0.093 | 2,918,495 |
|1957 | 8,256 | 39.24 | 0.094 | 2,959,040 |

¹ Estimated population as at June 1 of each year for the Provinces (1957 data related to 1956 population) and 1951 Census data for the Territories.

Subsection 3.—Allowances for Disabled Persons

The Disabled Persons Act of 1955 as amended November 1957 provides for federal reimbursement to the provinces for allowances paid to permanently and totally disabled persons aged 18 or over who are in need and who have resided in Canada for at least 10 years. The federal contribution may not exceed 50 p.c. of \$55 per month (\$40 prior to July 1, 1957; \$46 between July 1 and Oct. 31, 1957) or of the allowance paid, whichever is the less. The province administers the program and, within the limits of the federal Act, may fix the amount of allowance payable, the maximum income allowed and other conditions of eligibility.

To qualify for an allowance a person must meet the definition of permanent and total disability set out in the Regulations to the Act and have resided in Canada for at least 10 years immediately preceding commencement of allowance or, if absent from Canada during this period, must have been present in Canada prior to its commencement for a period equal to double any period of absence.

For an unmarried person, total income including the allowance may not exceed \$960 a year. For a married couple the limit is \$1,620 a year except that if the spouse is blind within the meaning of the Blind Persons Act, income of the couple may not exceed \$1,980 a year. Allowances are not paid to a person receiving an allowance under the Blind Persons Act or the War Veterans Allowance Act, assistance under the Old Age Assistance Act, a pension under the Old Age Security Act, or mothers' allowances.

The definition of permanent and total disability employed under the Act requires that a person must be suffering from a major physiological, anatomical or psychological impairment, verified by objective medical findings. The impairment must be one that is likely to continue indefinitely without substantial improvement and that will severely limit activities of normal living.

The allowance is not payable to a patient in a mental institution or tuberculosis sanatorium. A recipient who is resident in a nursing home, an infirmary, a home for the aged, an institution for the care of incurables or a private, charitable or public institution is eligible for the allowance only if the major part of the cost of his accommodation is being paid by himself or his family. When a recipient is required to enter a public or private hospital the allowance may be paid for no more than two months of hospitalization in a calendar year, excluding months of admission and release. For the period that a recipient is in hospital for therapeutic treatment for his disability or rehabilitation, as approved by the provincial authority, the allowance may continue to be paid. The provincial authorities must suspend the payment of the allowance when in its opinion the recipient unreasonably neglects or refuses to comply with or to avail himself of training, rehabilitation or treatment facilities provided by or available in the province.

In the first two years of the program, over half of the persons granted an allowance had primary disabilities which were in two medical classes: (1) mental, psychoneurotic and personality disorders and (2) diseases of the nervous system and sense organs. The most frequently occurring primary disability was mental deficiency which was found in over 25 p.c. of all applicants granted an allowance.

As at October 1957, British Columbia made supplementary payments of \$20 per month to recipients of disability allowances who qualified under a residence test. In Ontario the government shared to the extent of 60 p.c. in the first \$20 per month paid by a municipality to a needy recipient. In some provinces and in the Yukon recipients in special need might also be eligible for relief.

9.—Statistics of Allowances for Disabled Persons by Province, Years Ended Mar. 31, 1955-57¹

| Province and Year | Recipients in Month of March | Average Amount of Monthly Allowance | P.C. of Recipients to Population Age 20-69 | Federal Government Contribution during Year |
|--|------------------------------------|---|--|---|
| | No. | \$ | | \$ |
| Newfoundland.....1955 ² | --- | --- | --- | --- |
| 1956 | 606 | 39.08 | 0.305 | 119,326 |
| 1957 | 720 | 39.44 | 0.363 | 163,167 |
| Prince Edward Island.....1955 ³ | --- | --- | --- | --- |
| 1956 | 292 | 32.84 | 0.552 | 56,703 |
| 1957 | 345 | 33.94 | 0.652 | 65,690 |
| Nova Scotia.....1955 | 285 | 33.39 | 0.079 | 12,141 |
| 1956 | 1,172 | 34.86 | 0.319 | 254,326 |
| 1957 | 1,465 | 35.69 | 0.399 | 290,339 |
| New Brunswick.....1955 | 177 | 39.46 | 0.063 | 8,183 |
| 1956 | 947 | 39.13 | 0.330 | 218,644 |
| 1957 | 1,262 | 39.43 | 0.440 | 281,859 |
| Quebec.....1955 ³ | --- | --- | --- | --- |
| 1956 | 12,128 | 38.81 | 0.491 | 2,561,941 |
| 1957 | 15,856 | 38.97 | 0.642 | 3,593,395 |
| Ontario.....1955 | 6,623 | 39.36 | 0.218 | 389,061 |
| 1956 | 7,501 | 39.24 | 0.244 | 1,712,426 |
| 1957 | 8,065 | 39.27 | 0.262 | 1,853,110 |
| Manitoba.....1955 | 45 | 39.66 | 0.009 | 8,188 |
| 1956 | 738 | 39.00 | 0.153 | 172,350 |
| 1957 | 819 | 39.23 | 0.169 | 192,867 |
| Saskatchewan.....1955 | 36 | 37.52 | 0.007 | 1,806 |
| 1956 | 788 | 38.20 | 0.160 | 162,884 |
| 1957 | 988 | 38.68 | 0.200 | 221,966 |

For footnotes, see end of table.

**9.—Statistics of Allowances for Disabled Persons by Province, Years Ended
Mar. 31, 1955-57—concluded**

| Province or Territory and Year | Recipients in Month of March | Average Amount of Monthly Allowance | P.C. of Recipients to Population Age 20-69 | Federal Government Contribution during Year |
|--|------------------------------------|---|--|---|
| | No. | \$ | | \$ |
| Alberta.....1955 ¹ | — | — | — | — |
| 1956 | 1,150 | 38.01 | 0.193 | 290,947 |
| 1957 | 1,245 | 38.17 | 0.209 | 276,593 |
| British Columbia.....1955 ² | — | — | — | — |
| 1956 | 705 | 9.00 | 0.091 | 115,521 |
| 1957 | 1,067 | 39.01 | 0.138 | 227,926 |
| Northwest Territories.....1955 | — | — | — | — |
| 1956 | — | — | — | — |
| 1957 | 3 | 40.00 | 0.035 | 440 |
| Canada⁴.....1955 | 7,166 | 39.12 | 0.083 | 419,379 |
| 1956 | 26,027 | 38.66 | 0.296 | 5,665,068 |
| 1957 | 31,835 | 38.84 | 0.361 | 7,167,352 |

¹ Program in effect for the last three months of 1954-55 fiscal year.

² Program became effective Apr. 1, 1955.

³ By Mar. 31, 1955, no payments had yet been made by the Federal Government to these provinces in which the programs became effective Jan. 1, 1955. Payments for April 1955 include certain amounts retroactive to Jan. 1, 1955.

⁴ Excluding the Yukon Territory.

Subsection 4.—Unemployment Assistance

Under the Unemployment Assistance Act of 1956 the Federal Government may share with a province and its municipalities the cost of financial assistance to unemployed persons. No distinction is made in legislation between the employable and the unemployable. Federal aid is thus available to assist a province with a heavy relief load because of unemployment, or with a high proportion of unemployable persons in receipt of aid, or a combination of the two. A 1957 amendment deleted a provision under which federal reimbursement was made only in respect to recipients in excess of 0.45 p.c. of the provincial population.

Reimbursement is made to the province for payments within the existing provincial framework of general assistance. The scale and conditions of relief payments to recipients continue to be determined by the provinces and municipalities, except that the province agrees not to make length of residence a condition for the receipt of assistance when an applicant comes from another province which has signed a similar agreement.

The formula excludes federal reimbursement for payments for persons receiving mothers' allowances or persons who would normally be considered eligible for mothers' allowances. While it also generally excludes inmates of public and charitable institutions, it provides for federal sharing of provincial and municipal payments for those in certain types of homes for special care. Those receiving various types of social security payments under other programs are also excluded but the Federal Government shares with the provinces any additional relief payments other than cost-of-living bonus or across-the-board pension supplements made to such persons who are unemployed and in need. Health care and administration costs are also excluded from Federal Government reimbursement.

Agreements for the payment of federal assistance, effective from July 1, 1955, have been made with five provinces—Newfoundland, Prince Edward Island, Manitoba, Saskatchewan and British Columbia—and from Jan. 1, 1956, with a sixth province—New Brunswick. These agreements extend for five years except that with Saskatchewan, which runs for three years.

10.—Unemployment Assistance by Province, Years Ended Mar. 31, 1956 and 1957

| Province and Year | Federal Share of Unemployment Assistance Costs | | Recipients in March |
|---------------------------|--|------------------|---------------------|
| | | | |
| | | \$ | No. |
| Newfoundland..... | 1956 ¹ | 1,174,735 | 33,641 |
| | 1957 | 1,562,058 | 39,489 |
| Prince Edward Island..... | 1956 ¹ | 55,033 | 1,596 |
| | 1957 | 54,036 | 1,532 |
| New Brunswick..... | 1956 ² | 18,854 | 3,843 |
| | 1957 | 32,887 | 3,797 |
| Manitoba..... | 1956 ¹ | 484,131 | 10,649 |
| | 1957 ^P | 650,000 | 11,000 |
| Saskatchewan..... | 1956 ¹ | 369,519 | 10,464 |
| | 1957 | 512,678 | 10,123 |
| British Columbia..... | 1956 ¹ | 1,721,339 | 20,785 |
| | 1957 | 2,299,894 | 21,289 |
| Totals..... | 1956 | 3,823,611 | 85,978 |
| | 1957^P | 5,111,553 | 87,230 |

¹ Agreement effective from July 1, 1955.² Agreement effective from Jan. 1, 1956.

Section 3.—Provincial Programs

Subsection 1.—Mothers' Allowances

All provinces have statutory provision for allowances to enable certain needy mothers to remain at home to care for their dependent children. The total cost of this assistance is paid from provincial funds except in Alberta where a portion of each allowance is charged to the municipality of residence. In Newfoundland the Mothers' Allowances program was incorporated in the Social Assistance Act 1954 which became effective Apr. 1, 1955, and the transference of all cases under the Mothers' Allowances Act was completed in March 1957.

Subject to the conditions of eligibility which vary from province to province, the allowances are payable to applicants who are widowed or whose husbands are mentally incapacitated and, except in Alberta, to those whose husbands are physically disabled and unable to support their families. They are also payable, except in Nova Scotia, to deserted wives who meet specified conditions; in several provinces to mothers who have been granted a divorce or legal separation; in some to unmarried mothers; and in Ontario to Indian mothers. Foster mothers are eligible under certain circumstances.

The age limit for children varies from 15 years in one province to 18 in another, with the limit being 17 in two provinces and 16 years in the remainder. Provision is made in most provinces to extend payment for a specified period if the child is attending school or if he is physically or mentally handicapped.

In all provinces applicants must satisfy conditions of need and residence but the amount of outside income and resources allowed and the length of residence required prior to application vary considerably, the latter, for example, from one year in Saskatchewan, Ontario, New Brunswick and Newfoundland to five years in Quebec. All provinces require that the applicant be resident at the time of application and generally that the child or children live with the recipient, and most provinces require that they continue to live in the province while in receipt of an allowance. In the six provinces in which British or Canadian nationality is a condition of eligibility, the applicant may qualify for mothers' allowances if the mother or father or child meet the specified provisions.

In each province the relevant Act is administered by public welfare authorities. Most provinces have a mothers' allowances board or commission which makes the final decision regarding eligibility and the amount of allowance granted, or acts in an advisory capacity. Rates of benefit as of June 1957 are given in Table 11 and the number of families and children assisted and amounts of benefits paid as at Mar. 31, 1955 and 1956, are given in Table 12.

| Province | Mother and One Child | Each Additional Child | Disabled Father at Home | Family Maximum | Supplementary |
|---------------------------|--|---|-------------------------|--|--|
| Nfld. ¹ | \$25 | \$5 | \$10 | No limit to the number who may benefit | Rent to \$20 in rural and \$30 in urban areas; fuel to half a ton of coal monthly or equivalent in oil or wood during winter; clothing to \$24 yearly for child 1-5 yrs., to \$36 for child 6-16 yrs., to \$60 for person 17 or older. Also, an allowance of not more than \$30 a month may be granted if considered necessary for the proper support of the family. |
| P.E.I. ¹ | \$25 | \$5 | None granted | \$50 | None granted |
| N.S. ¹ | No set maximum, rates are based on average family income for community in which family lives | | No special provision | \$80 | None granted |
| N.B. ¹ | \$35 | \$10 | None granted | \$80 | An additional \$10 for rent if circumstances require it but only if allowance paid is below maximum. |
| Que. ¹ | \$60 | \$3 | \$10 | None set (minimum granted \$5) | A supplementary allowance of \$5 may be paid to a beneficiary incapable of working. Where need exists a special monthly allowance may be paid under the Quebec Public Charities Act through the municipality or a social agency. The cost is met in large part by the Province, with some contribution by the municipality concerned. |
| Ont. ² | \$50 for mother or father and one child \$24 for foster mother and one child | \$10 for foster mother and 2 children, with \$10 for each additional foster child | \$10 | None set | \$20 where need is apparent. A fuel allowance of up to \$24 a month may be granted from Sept. 1 to Mar. 31. |

For footnotes, see end of table, p. 284.

11.—Maximum Monthly Rates under Provincial Mothers' Allowances Legislation, June 1937—concluded

| Province | Mother and One Child | Each Additional Child | Disabled Father at Home | Family Maximum | Supplementary |
|------------|--|--|---|--|--|
| Man. | \$51 | \$10 for child 1-6 yrs. \$13 for child 7-11 yrs. \$15.50 for child 12-14 yrs. (subject to deductions for fourth and each additional child) | \$17.25 | \$150 \$167.25 if disabled father at home | Up to \$50 where necessary, \$25 of which may be used for rent above the schedule maximum. Fuel allowance granted for seven months. |
| Sask. | \$40 for mother and one child \$30 for guardian and one child | \$10 for 2nd \$5 for each subsequent child (with parent or guardian) | \$10 (also if confined to a nursing home or san- atorium) | \$90 \$100 if disabled father at home, in nursing home or sanatorium | Municipality may grant supplementary aid. Costs are shared between the Province and municipality on a 75-25 basis. In unorganized territories the Province assumes full cost. |
| Alta. | \$60 \$70 may be granted when income or assistance does not exceed \$120 per year | \$20 for 2nd and 3rd child \$10 for 4th to 6th \$15 for 7th \$10 for 8th and 9th | None | \$165 | Municipality may grant additional aid, 60 p.c. of the cost of which is reim- bursed by the Province. In unorganized territories the Province assumes full cost. |
| B.C. | \$42.50 plus \$34 from Social Allow- ance funds | \$7.50 plus \$8.50 from Social Allowance funds | \$7.50 plus \$8.50 from Social Allowance funds if not in receipt of old age security, old age assistance or disabled persons allowance | A maximum is set but there is no limit to the number who may benefit | Extra expenditures for additional needs such as repairs and emergencies; also for dietary extras, housekeeper services, prenatal allowances and certain assis- tance to I.B. patients and congenitally met through Social Allowance funds. Costs shared by Province and muni- cipalities on 80-20 basis but Province meets total cost of provincial cases and of prenatal allowances. |

¹ In Newfoundland the mothers' allowances program was incorporated in the Social Assistance Act, effective Apr. 1, 1955.
² Revised rates became effective Sept. 1, 1937, under the Mothers and Dependent Children's Allowances Act, 1937. Under this Act allowances are calculated on the basis of family needs and income.

12.—Mothers' Allowances by Province, as at Mar. 31, 1955 and 1956¹

| Province and Year ¹ | Families Assisted | Children Assisted | Benefits Paid ² | Province and Year | Families Assisted | Children Assisted | Benefits Paid |
|--------------------------------|-------------------|-------------------|----------------------------|-------------------|-------------------|-------------------|----------------------|
| | No. | No. | \$ | | No. | No. | \$ |
| Newfoundland— | | | | Ontario— | | | |
| 1955..... | 3,152 | 8,605 | 1,324,438 | 1955..... | 7,294 | 16,496 | 6,545,452 |
| 1956 ² | 386 | 1,001 | 718,259 | 1956..... | 7,266 | 16,664 | 6,768,617 |
| P. E. Island— | | | | Manitoba— | | | |
| 1955..... | 237 | 611 | 73,250 | 1955..... | 1,202 | 3,131 | 1,131,897 |
| 1956..... | 285 | 734 | 78,613 | 1956..... | 1,188 | 2,868 | 1,148,874 |
| Nova Scotia— | | | | Saskatchewan— | | | |
| 1955..... | 2,077 | 5,522 | 1,504,575 | 1955..... | 2,397 | 6,359 | 1,252,019 |
| 1956..... | 2,065 | 5,575 | 1,525,388 | 1956..... | 2,521 | 6,662 | 1,507,975 |
| New Brunswick— | | | | Alberta— | | | |
| 1955..... | 2,087 | 6,051 | 1,301,900 | 1955..... | 1,719 | 3,904 | 1,198,414 |
| 1956..... | 2,022 | 5,825 | 1,250,075 | 1956..... | 1,809 | 4,105 | 1,314,733 |
| Quebec— | | | | British Columbia— | | | |
| 1955..... | 20,024 | 58,070 | 7,956,309 | 1955..... | 393 | 900 | 225,446 ³ |
| 1956..... | 19,944 | 57,838 | 7,824,626 | 1956..... | 323 | 742 | 184,688 ³ |

¹ Year ended Mar. 31.² Families receiving aid under the Mothers' Allowances Act, who were not yet transferred to Social Assistance (*see* p. 282).³ Not including \$175,997 and \$148,003 paid as supplementation from social allowance funds in 1955 and 1956 respectively.

Subsection 2.—Provincial Welfare Services

The care and protection of neglected and dependent children, care of the aged, social assistance or relief, and other special welfare services are governed by provincial legislation although in many areas responsibility for services rests with municipal or voluntary organizations. Though the programs and the methods of financing vary considerably, most provinces share the costs of some or all of the municipal services in organized areas and assume the total cost in unorganized territories. The medical services available to social assistance recipients are described at pp. 236-251, mothers' allowances are dealt with in the immediately preceding subsection, old age assistance at pp. 276-277, allowances for the blind at pp. 278-279 and allowances for totally and permanently disabled persons at pp. 279-281.

Newfoundland.—Provincial welfare services are administered by the Department of Public Welfare through a number of regional welfare centres.

Child Care and Protection.—Child welfare has developed largely as a public service and is administered by the Child Welfare Division. Neglected children, made wards of the Director, are placed in foster or adoptive homes or in institutions. The Department pays for the maintenance of wards, grants subsidies for children admitted to orphanages administered by religious organizations, and contributes towards the cost of educating blind and deaf-mute children in institutions outside the Province. The Division operates an Infants' Home providing short-term care.

The Division of Corrections, established in 1953, deals with juvenile delinquents and adult offenders and administers correctional institutions for boys and girls. A Youth Guidance Authority has been established.

Care of the Aged.—The Province maintains a Home for the Aged and Infirm at St. John's and also pays in whole or in part the cost of maintaining needy old people in the Salvation Army Home, in the Cowan Mission Association Home, in licensed boarding homes or in private homes. In 1955 a grant of 20 p.c. of costs, to be paid over a 10-year period, was made to the Roman Catholic Episcopal Corporation for the construction of a home and provision is made for grants to similar projects under other auspices.

Social Assistance.—Under the Social Assistance Act of 1954 which came into effect in April 1955, assistance is provided to needy persons previously aided under the Dependents' Allowances Act and the Mothers' Allowances Act. Aid for certain needy able-bodied persons is also provided. Federal payments to the Province made by agreement under the federal Unemployment Assistance Act 1956 (*see* p. 282) were made retroactive to July 1, 1955.

Prince Edward Island.—The Department of Welfare and Labour is responsible for the administration of provincial welfare services.

Child Care and Protection.—Under the Children's Protection Act, neglected or delinquent children are placed under the guardianship of the Director of Child Welfare. They are cared for in foster or adoptive homes, boarding homes or children's institutions. Provincial grants are made to child welfare agencies and to the two private orphanages, one Protestant and one Roman Catholic. Juvenile Courts are under the Attorney General's Department and juvenile delinquents are cared for at the expense of the Department of Welfare and Labour in correctional institutions of neighbouring provinces.

Care of the Aged.—The aged and infirm are cared for in Falconwood Mental Hospital and in two provincial infirmaries.

Social Assistance.—The Department provides direct social assistance in rural areas and assumes 50 p.c. of the cost of assistance granted by the City of Charlottetown and the incorporated towns and villages. The Department also operates a province-wide program of financial aid to families where the breadwinner is suffering from tuberculosis and is unable to support the family. Federal payments to the Province made by agreement under the federal Unemployment Assistance Act 1956 (*see* p. 282) were made retroactive to July 1, 1955.

Nova Scotia.—Provincial welfare services are administered by the Department of Public Welfare through a number of regional offices.

Child Care and Protection.—The child welfare program, including the inspection of institutions and the licensing of foster and maternity homes, is under the Director of Child Welfare. The Director supervises the 12 Children's Aid Societies to whom child care and protection is delegated and directly administers the program in the four areas in which societies are not organized. By court decision a neglected child may be made a ward of the Director or of a Children's Aid Society. Each Society receives annually a provincial grant of up to \$2,000, based on its performance and quality of service; a sum equal to 50 p.c. of funds received through private campaigns and from municipalities for general operating expenses; and an additional grant of not less than \$1,000, the maximum determined on a per capita basis. The cost of maintaining wards is shared by the Province and municipality of residence.

The Department operates the Nova Scotia Training School for mentally defective children and the Nova Scotia School for Boys for juvenile delinquents. It is also responsible for the operation of the nine Juvenile Courts and the supervision of their probation staffs. The municipality of residence is responsible for the maintenance of children in reformatories although the Province may contribute also if the reformatory complies with specified standards.

Care of the Aged.—The aged are cared for in municipal or county homes, in homes operated by religious or private organizations and in private boarding homes where the municipality of residence may contribute to the cost of maintenance. Homes for the aged are subject to provincial inspection but they do not receive direct financial assistance from the Province.

Social Assistance.—Relief to needy persons is a local responsibility under the Poor Relief Act except in the cities of Halifax and Sydney which provide welfare relief under their charters. The Province reimburses municipalities or welfare agencies which provide relief to transients lacking legal residence in the Province.

New Brunswick.—The Department of Health and Social Services administers provincial welfare legislation.

Child Care and Protection.—Under the Children's Protection Act, administered by the Minister of Health and Social Services, responsibility for protection and placement services is largely delegated to Children's Aid Societies. Guardianship of a neglected child may be vested in a Society, in the Director of Child Welfare or in the Court. Orphanages are operated by religious, private or municipal organizations. Boarding homes, with some exceptions, are licensed and are subject to the provincial inspection required for all child care institutions. The Province and the municipality of residence each contribute towards the maintenance of wards committed to an institution, and the Province reimburses municipalities for one-half of the cost of maintaining wards placed in foster homes, up to a prescribed maximum. The Province also makes grants to the Children's Aid Societies to assist in their general child welfare program. The Department may place blind or deaf-mute children in special schools outside the Province. Juvenile Courts are under the Attorney General's Department and delinquent boys may be placed in the Provincial Industrial School for Boys which reports to the Minister of Health and Social Services.

Care of the Aged.—Homes for the aged are operated under municipal, religious, fraternal or private auspices and are subject to provincial inspection but they receive no direct financial support from the Province.

Social Assistance.—Relief to needy persons is a local responsibility and is generally discharged through the provision of institutional or indoor relief to those in need. Outdoor relief is provided in a number of centres. Federal payments to the Province provided by agreement with the Department of Municipal Affairs under the federal Unemployment Assistance Act, 1956 (*see p. 282*) were made retroactive to Jan. 1, 1956.

Quebec.—Provincial welfare measures are administered by the Department of Social Welfare and Youth. Legislation passed in 1956 provided for the transfer to that Department from the Department of Health of responsibilities under the Public Charities Act for orphanages, nurseries, adoption and welfare institutions and the placement of abandoned children. The Public Charities Act embodies the Government's policy of granting subsidies to religious and private institutions rather than creating public services. Grants representing a major share of the costs of the services are made by the Province, with the municipalities and the institutions also contributing.

Child Care and Protection.—Needy or abandoned children are generally cared for in institutions such as orphanages and nurseries although there is an increasing use of foster homes by child welfare agencies. Children who are found by a Social Welfare Court or other court to be particularly exposed to moral or physical dangers may be admitted to recognized youth protection schools administered by the Department of Social Welfare and Youth. Municipalities of residence, depending on their size, contribute from 15 to 25 p.c. of the operating and maintenance costs of these schools and the Province the remainder and the entire cost of new construction. The Social Welfare Courts which are under the jurisdiction of the Department of the Attorney General, have statutory responsibility in connection with child and youth protection and certain other provincial programs and also serve as Family Courts. Children who have been exposed to tuberculosis but who have not been infected are placed with rural families under the supervision of the Department of Health in co-operation with child welfare agencies.

Care of the Aged.—Institutional care for indigent old people is provided under the Quebec Public Charities Act through private institutions. Under the same Act, family welfare agencies administer home allowances to needy old people who do not require institutional care. Standards in homes are governed by regulations under the provincial Public Health Act.

Social Assistance.—Assistance is given under the Public Charities Act, usually in the form of institutional care. The Department of Colonization operates a program whereby families in need are settled on the land in newly opened districts and granted financial aid until they become self-supporting. In these areas a disability pension scheme is linked to a program of free medical services.

Ontario.—Provincial welfare services are administered by the Department of Public Welfare. The Province is divided into 17 welfare districts each in charge of a supervisor.

Child Care and Protection.—Responsibility for the local administration of the Child Welfare Act is delegated by the Province to Children's Aid Societies under the supervision of the Director of Child Welfare. Maintenance costs of children made wards of a society or taken into care as non-wards on agreement with a municipality are paid by the municipality of residence with a 40 p.c. reimbursement by the Province. The Province also makes annual grants to the societies for their work other than the care and maintenance of children. Children's institutions are governed by provisions of the Charitable Institutions Act and day nurseries by the Day Nurseries Act. In 1957 the Children's Boarding Homes Act was passed requiring the registration of all premises not covered by other legislation in which five or more children not related to one another are lodged, boarded or cared for. The Act provides for inspection and for the establishment of standards in the operation of the homes. The Province makes per diem grants for children in charitable institutions and pays one-half of the operating and maintenance costs of municipal day nurseries. Juvenile Courts are under the Attorney General's Department while training schools for juvenile offenders are operated by the Department of Reform Institutions.

Care of the Aged.—Under the Homes for the Aged Act municipalities must provide institutional or boarding home care for the aged. The Province contributes 50 p.c. of the cost of constructing approved homes or of approved additions and extensions and 50 p.c. of their net operating and maintenance costs. It also pays up to 50 p.c. of the cost of maintenance in approved boarding homes. Private homes for the aged are licensed, inspected and assisted under the Charitable Institutions Act which provides grants-in-aid of construction equalling 50 p.c. of the costs up to \$2,500 per bed and a monthly maintenance payment of \$8 per resident. The Elderly Persons Housing Aid Act provides for grants to limited-dividend housing corporations building low-rental housing for elderly persons.

Social Assistance.—Under the Unemployment Relief Act the Province reimburses municipalities, up to a prescribed maximum, for 60 p.c. of their expenditures on relief to needy unemployables and on incapacitation allowances and rehabilitative measures for single, needy, handicapped residents. In unorganized areas the program is administered and financed by the Department. The Soldiers' Aid Commission extends emergency assistance and advice to ex-servicemen and their families.

Manitoba.—The Public Welfare Division of the Department of Health and Public Welfare is responsible for provincial welfare services.

Child Care and Protection.—The Director of Public Welfare administers provincial child welfare legislation, including the supervision of Children's Aid Societies and of child care institutions. The Public Welfare Division administers child welfare services in a large area of the Province, through decentralized district offices. In the remainder of the Province the Director supervises the four non-denominational Children's Aid Societies

in their respective areas. Neglected children may be made wards of the Director of Public Welfare or of a Children's Aid Society. Municipalities are responsible for the maintenance of wards with provincial reimbursement on the basis outlined below under Social Assistance. Payment of annual provincial grants to Children's Aid Societies is conditional on the provision of a basic level of service and the collection of substantial voluntary contributions.

The Division provides foster home care and supervision for mental defectives placed in the custody of the Director of Public Welfare and, with the Division of Psychiatry, operates a home for mentally defective girls. The Attorney General's Department is responsible for Juvenile Courts and operates a boys' home and a girls' home for delinquents.

Care of the Aged.—Institutions and nursing homes for the aged and infirm are supervised and licensed by the Department under public health legislation. Under the Elderly Persons Housing Act, the Province makes construction grants to municipalities, charitable organizations or limited dividend companies equalling 20 p.c. of costs for housing accommodation and one-third of the costs of building and renovating homes for the aged.

Social Assistance.—Municipalities are responsible for social assistance, which is defined as relief to indigents, together with maintenance costs of children under the Child Welfare Act. The Province reimburses a municipality to the extent of at least 40 p.c. of its social assistance costs; where it is to the municipality's advantage, provincial reimbursement is on the basis of 80 p.c. of the excess of the municipality's social assistance costs over the revenue the municipality receives from a tax levy of one mill on its equalized assessment. The Province is responsible for aid to persons without municipal residence as well as for general assistance in unorganized territory. Federal payments to the Province, made by agreement under the federal Unemployment Assistance Act 1956 (see p. 282), were made retroactive to July 1, 1955.

Saskatchewan.—Provincial welfare services are administered by the Department of Social Welfare and Rehabilitation.

Child Care and Protection.—The Department provides welfare services for children throughout the Province with the exception of Saskatoon where certain responsibilities are delegated to the Children's Aid Society. Children found to be neglected are, by court order, made wards of the Minister and are placed in foster homes, adoptive homes or institutions. A portion of the maintenance costs of wards, except of children born out of wedlock, for whom the Province assumes the entire cost, is paid by the municipality of residence. The Branch operates two institutions for the temporary care of wards and also a program of non-ward care.

The Corrections Branch of the Department is responsible for both adult and juvenile correctional services, supervises probation and parole services for juvenile delinquents and administers the Saskatchewan Boys' School and the provincial gaols. The Juvenile Court is presided over by a judge who devotes his time exclusively to cases of juvenile delinquency. Juveniles are discharged from correctional institutions only by parole. A Youth Guidance Authority supervises the discharging of juveniles from probation, from institutions and from parole.

Care of the Aged.—Aged and infirm persons are cared for in four provincial nursing homes and in private homes for the aged. The latter are inspected and licensed under the Housing Act which also empowers the Province and municipalities to subscribe to the stock of limited-dividend housing companies building low-rental accommodation for older persons. The Province may also make loans to the municipalities to assist them in subscribing. Capital grants amounting to 20 p.c. of construction costs and also maintenance grants equalling \$40 per bed per year, may be made to municipalities, church or charitable organizations sponsoring approved homes or housing projects.

Social Assistance and Special Services.—The costs of assistance to needy persons with municipal residence are divided on a 75-25 basis between the Province and the municipalities and the Province pays the entire cost for transients and for persons in unorganized areas. Federal payments to the Province made by agreement under the federal Unemployment Assistance Act 1956 (see p. 282) were made retroactive to July 1, 1955.

The Rehabilitation Branch provides training and placement services for the handicapped; one-half the cost of this training is borne by the Province and one-half by the municipality of residence. It is also responsible for the rehabilitation of minority groups and operates a farm where the métis—persons of mixed Indian and white stock who do not qualify under the Indian Act—are instructed in modern methods of farming while being paid for their work. Three schools are conducted for métis children.

The Department administers the Provincial Housing Act which empowers the Province to enter into public housing projects under the National Housing Act, and to stimulate construction of low-rental housing projects by limited-dividend housing corporations.

Alberta.—The Department of Public Welfare is responsible for the administration of provincial welfare measures. It has branches at the four larger centres and inspectors are located in suitable areas throughout the Province.

Child Care and Protection.—The Provincial child welfare program is directed by a Child Welfare Commission. Neglected children, made wards of the Government by court order or by agreement, may be placed in foster homes, adoptive homes or institutions. The cost of maintenance of wards is paid by the Province which recovers 40 p.c. of such cost from the municipality of residence. The Home Investigating Committee is responsible for the inspection and the licensing, where required, of all homes and institutions in which children are given care. The Attorney General's Department administers legislation regarding juvenile delinquency.

Care of the Aged.—Provincial grants equalling one-third of the cost or \$750 a bed, whichever is less, may be made to municipalities erecting or purchasing homes with ten or more beds for aged or infirm persons. The Province also meets up to 60 p.c. of the cost incurred by municipalities for the maintenance of indigent aged and infirm persons in homes licensed by the municipality in accordance with specified standards.

Social Assistance.—Municipalities are responsible for assistance to indigent residents but the Province reimburses the municipalities for up to 60 p.c. of the value of the assistance and pays the total cost of assistance to transients. The Province administers relief to residents of unorganized districts subject to a refund of 40 p.c. of the assistance from the districts. Families may be assisted through settlement on suitable farm lands. The Single Men's Branch maintains two hostels and one welfare centre to care for unemployable single homeless men without municipal domicile. The Province has also established a number of métis colonies where settlers have extensive fishing, hunting and trapping rights and are encouraged to engage in lumbering, agriculture and stock-raising. Educational services are provided and government operated stores sell goods at cost price.

Widows Pensions.—Under the Widows Pension Act, widows aged 60 to 64 years inclusive may receive pensions of up to \$46 per month. Also included in this category are wives of husbands committed to mental hospitals or deserted wives who meet the conditions of need and residence and are within the designated age group.

British Columbia.—Administration of provincial services by the Social Welfare Branch of the Department of Health and Welfare is decentralized through district and municipal offices in six regions covering the whole Province. Generalized field service is provided by provincial social workers. The staff of the Social Welfare Branch is also responsible for welfare services required in connection with a number of programs operated by the Health Branch.

Cities and municipalities of over 10,000 population must have their own social welfare departments to administer the social assistance program and to provide case-work services. The Province pays 50 p.c. of the salaries of municipal social workers or, where more than

one is needed, matches the municipal appointees, worker for worker. Smaller municipalities may have their own or amalgamated social welfare departments or they may pay for the services of the Social Welfare Branch.

Child Care and Protection.—The Child Welfare Division administers legislation governing the protection of children, including adoptions, and provides direct services except at Vancouver and Victoria where it supervises the Children's Aid Societies. Municipalities are responsible for the costs of maintaining wards but the Province reimburses them to the extent of 80 p.c. of such expenditure and pays the entire cost for children in unorganized areas. The Province pays the total maintenance cost of wards who are children of unmarried mothers. Child care institutions, boarding homes and day nurseries are licensed and supervised. The Social Welfare Branch administers an industrial school for delinquent boys and one for delinquent girls. Family case-work and rehabilitative supervision of children released from the schools are carried on in co-operation with the Psychiatric Division and the probation service of the Juvenile Courts. These courts are under the jurisdiction of the Attorney General's Department.

Care of the Aged.—The Province operates the Provincial Home for elderly, homeless men, the Provincial Infirmary for the chronically ill and the Provincial Homes for the Aged for senile and psychotic patients. It also licenses and supervises homes for the aged, nursing homes, and boarding homes, and where necessary shares with the municipalities on an 80-20 basis the costs of maintaining needy residents. The Province meets the total cost for provincial charges. Under the Elderly Citizens Housing Aid Act the Province makes grants amounting to one-third of construction costs to municipalities and non-profit corporations, including religious and service organizations, building homes or low-rental housing units for elderly citizens.

Social Assistance.—The social assistance program is administered by the Director of Welfare and supervised by the Family Division. It includes allowances to indigent individuals or families, counselling services, occupational training and the maintenance costs of nursing home or boarding home care. The Province reimburses the municipalities for 80 p.c. of the cost of basic and certain supplementary social assistance payments to indigent municipal residents and assumes the total cost of assistance granted for those without municipal residence. Federal payments to the Province made by agreement under the federal Unemployment Assistance Act 1956 (p. 282) were made retroactive to July 1, 1955.

Subsection 3.—Workmen's Compensation

In all ten provinces, legislation is in force providing for compensation for injury to a workman by accident arising out of and in the course of employment or by a specified industrial disease. A summary of provincial workmen's compensation legislation is given in Chapter XVIII.

Subsection 4.—Charitable and Benevolent Institutions

Statistics of charitable and benevolent institutions were secured by the Census of 1951 and covered the 1950 activities of 533 institutions, 490 being residential institutions and 43 being day nurseries. Summary statistics are given in the 1954 Year Book, p. 263.

PART III.—NATIONAL VOLUNTARY HEALTH AND WELFARE ACTIVITIES

A number of national voluntary agencies carry on important work in the provision of health and welfare services, planning and education. These agencies, some of which are described below, supplement the services of the federal and provincial authorities in many fields and play a leading role in stimulating public awareness of health and welfare needs and in promoting action to meet them.

The Canadian Welfare Council.—The Council, established in 1920, is a national voluntary association of organizations and individual citizens whose aim is to further the development of social services in Canada. Member organizations include community funds and councils, other private social agencies, various federal, provincial and municipal departments, and citizen groups and individuals active in the fields of health, welfare and recreation. It furnishes authoritative information, technical consultation and field service in the main areas of social welfare and provides a means of co-operative planning and action by public and private agencies.

The policies and programs of the Council are determined by its members under the leadership of a nationally representative board of governors. Aided by professional staff, the members work together through Divisions of Family and Child Welfare, Recreation, Public Welfare, Corrections, and Community Chests and Councils, and through special committees on such subjects as welfare of immigrants and the aging. Departments of the Council include the Information Branch and French Speaking Services.

Matters which have been under study by the Council include public assistance, health insurance, adoption, probation services, problems of the Hungarian refugees, homemaker services, recreation facilities, and united appeals. The Council undertakes surveys, on request, for agencies, communities and provinces. Council publications include the periodicals *Canadian Welfare* and *Bien-Être Social Canadien*, a directory of Canadian welfare services, pamphlets, and division bulletins.

The Canadian Red Cross Society.—Established in 1896 in Canada, the Society is affiliated with the International Red Cross and has branches in all ten provinces with a national headquarters in Toronto. Its objectives, defined in its Charter, are "... in time of peace or war to carry on and assist in work for the improvement of health, the prevention of disease and the mitigation of suffering throughout the world". Its activities cover a very broad area, ranging from national and international disaster relief services, to the support of local projects such as the establishment and operation of local clinics, the provision of medical services to indigent children and the promotion of water safety campaigns. One of its major activities in Canada has been the operation of blood banks in seven provinces and in parts of two others; it also maintains outpost hospitals, nursing stations and emergency units in eight provinces, and the Alberta Red Cross Crippled Children's Hospital in Calgary. The Junior Red Cross promotes health education through its schoolroom branches across Canada, supports a special fund to supply treatment to indigent handicapped children in Canada and a fund to promote international understanding.

The Health League of Canada.—The Health League of Canada, first established in 1918 as a National Committee for Combating Venereal Disease, has broadened its scope until its membership covers sixty national associations supporting a wide variety of health activities. The primary objectives of the League are the promotion of personal and community health and the prevention of disease through health education. Its major activities are administered from a national office in Toronto, usually working through the affiliated organizations. Educational efforts include the provision of speakers for meetings and the preparation of radio scripts, health education films and literature; a magazine is published bi-monthly and weekly news bulletins are released to the press. The League also sponsors a National Health Week and a National Immunization Week.

Victorian Order of Nurses.—Since its inception in 1897, the Victorian Order of Nurses has provided a professional home nursing service, details of which are given on pp. 269-270.

St. John Ambulance Association.—The Priory of Canada of the Most Venerable Order of the Hospital of St. John of Jerusalem, popularly known as the St. John Ambulance Association, began from a local unit in Montreal in 1884. The Association is composed

of two parts, the St. John Ambulance Association and the St. John Ambulance Brigade, the latter being a group of volunteer field workers. Headquarters of the Association is in Ottawa, with provincial divisions in all provinces controlling their own programs and financing the operation of their local branches; the St. John Ambulance Brigade is under the supervision of the national headquarters. The chief work of the Brigade is first aid and emergency nursing.

The Canadian National Institute for the Blind.—Since its inception in 1918 the Canadian National Institute for the Blind has been dedicated to the provision of rehabilitation and social welfare services to the blind and to those with partial sight. The national office, located in Toronto, serves all provinces through its six regional divisions and 46 branches. The Institute provides both social services and financial assistance; it arranges for examinations and eye treatment services, purchases glasses for needy individuals and operates an eye bank. Under an extensive rehabilitation program, with training facilities centred in Toronto, it trains blind persons in various occupations, offers job counselling and placement services and, for those who cannot compete in industry, it provides sheltered workshops; its more than 8,000 newspaper, tobacco and confectionery concession stands are operated by blind persons. Sightless field workers bring a home training program to blind persons to help them learn Braille, typing and handicrafts, and a special program for pre-school blind children prepares them for attendance at a school for the blind. The Institute builds and maintains residential quarters and recreational facilities in all larger centres and supplies Braille books and recordings to the blind from its national library in Toronto.

The Canadian Hearing Society.—Organized in Toronto in 1940 as the National Society of the Deaf and the Hard of Hearing, the Society operates chiefly in Toronto and the surrounding area. It is concerned with the preservation of hearing, the treatment of deafness and the provision of rehabilitation services for those with impaired hearing. It provides otological examinations, counselling, vocational guidance and job placement services for the deaf or hard of hearing, and hearing aids to indigent persons.

The Canadian Mental Health Association.—The Association, organized in 1918 as the National Committee for Mental Hygiene, now has divisions in all provinces except Prince Edward Island and Newfoundland; its national office is located in Toronto. Since its inception the organization has participated directly or indirectly in almost every development in the mental health field in Canada. The Association conducts an active public education program, serves as consultant to government departments, welfare agencies and voluntary organizations, operates a teacher training program and encourages research. It is supported by voluntary donations and federal and provincial grants.

The National Cancer Institute of Canada.—The National Cancer Institute, composed of persons representing various societies and agencies concerned with cancer research and therapy, was founded in 1947 to develop a nationally co-ordinated research and professional education program. The Institute promotes fundamental research through selected projects in universities, hospitals and research centres, maintains a Canadian Tumour Registry, provides training fellowships and, in co-operation with the Canadian Medical Association and medical schools, promotes professional education on cancer topics. The Institute receives support from federal and provincial grants and an annual contribution from the Canadian Cancer Society; a special project on lung cancer has been supported by the Canadian Tobacco Industry.

The Canadian Cancer Society.—Organized in 1938 to co-ordinate voluntary activities and disseminate knowledge in the cancer field, the Canadian Cancer Society operates in all provinces and has its national office in Toronto. Its services include a

public education program, welfare services such as transportation, home nursing and cancer dressings to needy persons, and fellowships to medical graduates for advanced study in cancer. The Society also makes an annual grant to the National Cancer Institute of Canada and supports clinical research.

The Canadian Arthritis and Rheumatism Society.—Established in 1948 to promote research, professional education and treatment services in the field of rheumatism and arthritis and to disseminate factual information, the Society has branches operating in all provinces except Prince Edward Island and Newfoundland; its national office is in Toronto. Medical advisory boards in each of the eight provinces and one at the national level give advice and guidance to the provincial and national directors. The Society sponsors an educational program both for the general public and for physicians; it encourages the establishment of stationary clinics in general hospitals for the treatment of low-income patients; it pioneered in the operation of mobile clinics and now operates some seventy units to bring treatment to home-bound patients; in two provinces it supports a mobile consultative service as well as research projects in various universities and institutions; and provides clinical fellowships to physicians in all parts of Canada.

The Canadian Council for Crippled Children and Adults.—The Council was established in 1937 to co-ordinate and support activities for the care and rehabilitation of physically impaired children. The first provincial organization was formed in Ontario in 1922 and similar organizations, which have remained autonomous, now exist in all provinces except Prince Edward Island. In 1954 the services of the organization were extended to include adults. Programs in the provinces vary, ranging from the establishment of cerebral palsy clinics and the operation of summer camps for the handicapped, to payment for treatment services, prosthetics, and hospital and nursing care for needy handicapped persons. In most provinces, service clubs raise funds to support the work of the organization, particularly through the sale of Easter Seals.

The Canadian Paraplegic Association.—The Canadian Paraplegic Association, which was established in 1945 to complement the specialized treatment and rehabilitation services developed for veterans by the Department of Veterans Affairs, now includes services for civilian paraplegic cases and persons seriously handicapped by poliomyelitis and other disabling conditions. The national office of the Association and the major treatment centre, Lyndhurst Lodge, are housed in the same building in Toronto. Services include in-patient and out-patient therapy, the provision of prosthetic appliances, loans to patients, and rehabilitation services such as job counselling. Four regional divisions also have been established—the Maritime, Quebec, Central Western and Western Divisions. The Western Division is affiliated with the G. F. Strong Rehabilitation Centre.

National Heart Foundation of Canada.—The Canadian Heart Foundation, formed in 1947 by physicians to co-ordinate research and disseminate information, was replaced by the National Heart Foundation of Canada in 1956. Its membership consists of lay and medical organizations interested in promoting or assisting research on cardiovascular diseases. Its national office is in Toronto.

Multiple Sclerosis Society of Canada.—Organized in 1948 to encourage, support and co-ordinate research regarding multiple sclerosis, the Society also compiles statistics and carries on public education. The national office in Ottawa is maintained by twelve provincial and local chapters whose chief function is fund raising.

The Muscular Dystrophy Association of Canada.—This Association was organized in 1954 to stimulate and unify efforts in research into the cause, nature and cure of muscular dystrophy and to promote the establishment of facilities for diagnostic, consultative and treatment services. It has a national office in Toronto supported by nine regional chapters and its chief activity is the support of research projects in medical centres across the country.

PART IV.—VETERANS SERVICES*

The Department of Veterans Affairs administers the legislation making up the Veterans Charter, except for the Pension Act which is the responsibility of the Canadian Pension Commission. The work of the Department now consists, in the main, of: the provision of medical treatment to veterans eligible to receive it; the rehabilitation of veterans including allowances, other financial assistance, education of veterans and educational assistance for children of war dead, and general welfare services; land settlement and home construction assistance; and veterans insurance. These functions are dealt with in Sections 1 to 5 of this Chapter. Pensions payable under the Pension Act are covered in Section 6, the payment of allowances under the War Veterans Allowance Act will be found in Section 7 and Veterans Commissions and Boards are in Section 8.

The work of the Department, except as regards the Veterans' Land Act, is carried out through 17 district and five sub-district offices located across Canada and one district office in London, England. The Veterans' Land Act is administered through eight district and 32 regional offices.

Section 1.—Medical, Dental and Prosthetic Services

Medical Services.—The Department of Veterans Affairs provides medical services to entitled veterans across Canada. A chain of 11 active-treatment hospitals is maintained together with two convalescent centres and two homes for provision of domiciliary care. These institutions had a total operating capacity of 9,285 beds at Mar. 31, 1957. Special centres exist in active-treatment hospitals for the investigation and treatment of arthritis, paraplegia, tuberculosis, mental and other conditions. An additional 588 beds are available in veterans' pavilions at Ottawa, Regina and Edmonton. These pavilions are owned by the Department but are operated by the parent hospitals and partially administered by the Department. Where Departmental facilities are not available, entitled veterans may be treated at Departmental expense by their own doctor in the hospital of their choice.

Professional staffs in Departmental institutions are employed on a part-time basis and the majority are members of medical faculties, nominated for staff positions by the dean of medicine. Close co-operation is maintained with medical schools, and the hospitals in the proximity of universities are actively engaged in medical teaching. The active-treatment hospitals have received approval of the Royal College of Physicians and Surgeons of Canada for postgraduate training in internal medicine and surgery, and the majority have been approved for advanced postgraduate teaching in the various specialties.

A program of Medical Research and Education was established in 1950 and has been gradually expanded. During the fiscal year 1956-57 some 95 projects were in progress, employing 105 persons. The program is varied and deals mostly with conditions affecting the older veteran, which the Department is in a unique position to investigate. Among the problems under study may be mentioned arthritis, hypertension and allied cardiac conditions, chronic respiratory diseases and mental conditions. Five of the larger hospitals operate clinical investigation units for provision of basic facilities such as detailed metabolic studies. Radioisotope laboratories are maintained at Toronto and Montreal.

During 1956-57, 30 persons received financial assistance from a research and educational grant for attendance at various courses. Schools for the training of nursing assistants were operated at Halifax, Montreal and Toronto with a potential of 180 graduates per year. These schools provide a reservoir of trained personnel for employment in Departmental hospitals. At Mar. 31, 1957, 135 nursing assistants were in the employ of the Department.

* Prepared by the Department of Veterans Affairs, Ottawa.

An Intern-Resident Program is maintained in the active-treatment hospitals and at the end of March 1957 some 253 interns and residents were in Departmental employ. In addition, training was provided for over 130 interns in occupational therapy, physiotherapy, psychology, laboratory and medical social services. These training programs are undertaken with the close co-operation of universities.

Members of the Armed Forces, Royal Canadian Mounted Police and sick mariners receive treatment in Departmental hospitals at the request and expense of the Departments concerned. In three of the active-treatment hospitals, special Armed Forces units staffed by National Defence personnel have been established as self-contained units within the hospitals. Any veteran may receive treatment in a Departmental hospital for a non-pensioned condition upon guarantee of full cost of hospitalization. During 1956-57 over 2,600 veterans were hospitalized under this plan. Certain veterans of limited income may receive treatment for non-pensioned conditions by payment of the costs on a sliding scale according to the adjusted income. The weekly average of those making some contribution was 280. In addition, a weekly average of 180 persons received free treatment.

Minor changes in veterans' legislation have been effected during the two years ended Mar. 31, 1957. Deductions from disability pensions for veterans under treatment as in-patients were eliminated. Authority was obtained to provide treatment for those who served with the United Nations Forces, other than those of Canada, in military operations undertaken by the United Nations to restore peace in Korea. Treatment is at the request and expense of the government concerned. The amount payable for overnight lodging for patients incurring this expense, when required by the Department or the Canadian Pension Commission to report for medical examination, was increased from \$3 to \$4.

Treatment for a non-pensioned neuropsychiatric disability was authorized on a sliding scale of payment according to income, so that treatment of these conditions is no longer available under more favourable circumstances than for other non-pensioned disabilities. Authority was obtained to provide treatment for non-pensioned disabilities and domiciliary care to members of the North West Field Force with recovery on a sliding scale basis. Minor changes were effected in funeral and burial grants. Certain amounts paid to veterans were exempted as income for all purposes of the Veterans Treatment Regulations including additions to pensions for attendance under Sect. 30 of the Pension Act; allowances for wear and tear of clothing and, under War Claims Regulations, compensation for maltreatment.

Dental Services.—Dental treatment is provided for those pensioned veterans whose disability would be alleviated by such treatment, for War Veterans Allowance recipients, and for other persons whose health care is the responsibility of the Department such as Royal Canadian Mounted Police personnel and members of the Canadian Forces. Treatment is also provided at the request of other governments.

The Department employs 37 full-time dentists, one half-time dentist and two dental consultants, specialists in their fields, on a part-time basis. Twenty-six dental clinics are maintained in Departmental hospitals or centres on a full-time or part-time basis. Elsewhere, the services of private dentists on a 'fee-for-service' basis are utilized.

Since 1948, 38 training courses for dental surgeons in various specialties of dentistry have been conducted by the Department. Many Departmental dentists have given instructional clinics at various national and regional conventions, participated in the research programs of their respective hospitals, and assisted the dental colleges by part-time lecturing.

Treatments provided by the Department in 1956-57 showed a slight increase over the previous year and all clinics and dentists were working well up to capacity. There were 18,105 courses of treatment given during the fiscal year, an increase of 987 cases and an increase of 5,009 in the total number of operations.

Prosthetic Services.—The Department of Veterans Affairs provides a complete coverage of prosthetic and orthopaedic appliances and sensory aid devices to Canada's disabled veterans and other Departments of Government. The primary issue is made on medical prescription. Maintenance and renewal are carried out at District Centres. Service is given without expense to the eligible veteran. Twelve centres or shops are located in or adjacent to the Departmental hospitals in major cities from coast to coast, and six sub-centres in smaller localities. Every effort is made to maintain a high standardization of stock parts and quality of materials supplied. The largest centre, located at Sunnybrook Hospital, Toronto, manufactures stock parts and is the central stores supply. It is one of the most complete centres of its kind in existence.

A research section is maintained for the design and testing of new materials and appliances. Among new developments that might be mentioned are the plastic Syme's leg with a solid ankle and sponge rubber foot, the Canadian Hip Disarticulation leg, the development of a motorized unit designed by the National Research Council for wheel chairs for quadraplegic cases. Many items, such as cosmetic gloves, mechanical hands, various new designs of arms, drop-foot splints and foam-sponge feet for artificial legs are still in the project stage.

During the year ended Mar. 31, 1957, service was provided to approximately 70,000 patients who received 143,000 issues.

Section 2.—Rehabilitation of Veterans

The Welfare Services Branch of the Department of Veterans Affairs, in addition to administering the rehabilitation benefits still available, renders welfare assistance to veterans, their dependants, widows and orphans. Specialized services are given by the Casualty, Social Service, Older Veterans and General Services Sections. This aspect of the work requires close liaison with other government departments—federal, provincial and municipal—as well as national and local welfare and rehabilitation organizations for co-operation and prevention of duplication of services.

War Service Gratuity.—The payment of war service gratuities was discontinued after Dec. 31, 1954, for World War II veterans except for those with overseas service who satisfy the Minister that they could not apply before that date as a result of unusual circumstances. The amounts paid in gratuities up to the end of the 1954-55 fiscal year are shown in the 1956 Year Book, p. 306. Those paid in 1955-56 and 1956-57 and the cumulative totals were:—

| <u>Year</u> | <u>World War II Veterans</u> | <u>Special Force Veterans</u> |
|------------------------------|----------------------------------|-----------------------------------|
| | <u>\$</u> | <u>\$</u> |
| 1955-56..... | 30,536 | 16,932 |
| 1956-57..... | 9,457 | 7,351 |
| Totals to Mar. 31, 1957..... | 470,012,032 | 6,688,822 |

Re-establishment Credit.—On Mar. 31, 1957, the amount of \$21,680,134 in re-establishment credit, out of nearly \$325,000,000, had not yet been authorized on behalf of the veterans entitled to claim it. These veterans have until Dec. 31, 1959, or 15 years after discharge, whichever is the later, to apply for their unused credit. The amounts paid during 1955-56 and 1956-57, and the cumulative totals to Mar. 31, 1957, by required purposes, are shown in Table 1.

1.—Re-establishment Credits Paid by Required Purpose, Years Ended Mar. 31, 1956 and 1957 with Cumulative Totals to Mar. 31, 1957

| Purpose | 1956 | 1957 | Cumulative Total to Mar. 31, 1957 |
|--|------------------|------------------|-----------------------------------|
| | \$ | \$ | \$ |
| Homes | 2,471,283 | 1,432,454 | 237,948,469 |
| Purchased under National Housing Act..... | 24,646 | 20,991 | 3,325,522 |
| Purchased other than under National Housing Act..... | 154,665 | 107,324 | 32,334,376 |
| Repairs, etc..... | 200,694 | 130,800 | 16,552,607 |
| Furniture and equipment..... | 2,057,002 | 1,154,285 | 181,274,207 |
| Reduction of mortgage..... | 34,276 | 19,054 | 4,461,757 |
| Business | 678,014 | 280,916 | 55,054,559 |
| Purchase of a business..... | 8,119 | 3,470 | 3,674,952 |
| Working capital..... | 311,320 | 66,109 | 25,207,274 |
| Tools and equipment..... | 358,575 | 211,337 | 26,172,333 |
| Miscellaneous | 402,540 | 389,891 | 9,775,881 |
| Insurance, annuities, etc..... | 351,438 | 201,719 | 8,763,650 |
| Special equipment for training..... | 25,041 | 17,852 | 716,256 |
| Clothing..... | 26,061 | 21,889 | 147,544 |
| Reimbursements..... | — | 148,431 | 148,431 |
| Totals | 3,551,837 | 2,103,261 | 302,778,909 |

Casualty Rehabilitation.—The work of the Casualty Welfare Division continued to increase during the two years ended Mar. 31, 1957, by which date the number of disabled veterans registered had risen to 43,123, an increase of 2,454 from Mar. 31, 1955. During the 1956-57 fiscal year, 1,294 disabled veterans registered with the Division but 1,898 cases were closed, resulting in a reduction over the year of more than 600 in the number of active cases. The number of active cases at Mar. 31, 1957, was 4,257.

The function of the Casualty Welfare Division is outlined in the 1956 Year Book, p. 307. Statistics up to Mar. 31, 1957, showing the registrations by type of disability and the status at that date of those registered, are given in Table 2.

2.—Total Registrations for Casualty Rehabilitation by Type of Disability up to Mar. 31, 1957 and Status of Registrants as at Mar. 31, 1956 and 1957

| Type of Disability | Active Cases | Closed Cases | Status | Mar. 31, 1956 | Mar. 31, 1957 |
|--|--------------|---------------|--|---------------|---------------|
| | No. | No. | | No. | No. |
| Amputation..... | 156 | 2,241 | Employed..... | 33,764 | 34,893 |
| Neuro-muscular and skeletal system disabilities..... | 1,018 | 12,217 | Unemployed..... | 972 | 777 |
| Total and partial loss of hearing or sight..... | 195 | 2,960 | Receiving treatment, training or other services..... | 1,900 | 1,824 |
| Neurological cases..... | 236 | 1,459 | Rehabilitation not feasible..... | 2,911 | 3,082 |
| Heart and vascular system..... | 269 | 3,718 | Closed on WVA..... | 1,294 | 1,492 |
| Respiratory disabilities..... | 1,536 | 10,172 | Left Canada..... | 988 | 1,055 |
| Mental and emotional disabilities..... | 337 | 1,031 | | | |
| Unclassified..... | 510 | 5,068 | | | |
| Totals | 4,257 | 38,866 | Totals | 41,829 | 43,123 |

Social Services.—The Social Services Division provides a "case work" service to veterans and their dependants, and a social welfare consultant service to other Departmental officials dealing with welfare matters. It maintains liaison with welfare departments at all levels of government and with private social and philanthropic agencies.

The Division has specific responsibilities in connection with the operation of the Assistance Fund, which is available to War Veterans Allowance recipients who are in need (*see below*) and, at the request of the Department of National Defence, furnishes reports on home circumstances of Armed Forces personnel who request compassionate leave, posting or discharge. The latter service provides information on which decisions may be based and may help those concerned through counselling and referral to community social services.

During the year ended Mar. 31, 1957, there were received 13,689 requests for services from all sources, a slight increase over the previous year.

Rehabilitation of Older Veterans.—During the two years ended Mar. 31, 1957, liaison was continued and extended with the Department of Labour, National Employment Service, Canadian Corps of Commissionaires, Canadian Legion and other public and private organizations through which older veterans and their dependants are assisted to find employment matched to their physical and mental abilities. Assistance was also provided to the Canadian Welfare Council, universities and other bodies in their efforts to study and publicize the problems and needs of those who, on account of age, often coupled with physical, mental or economic handicaps, need help in obtaining or retaining suitable employment.

The Welfare Services Division continued to review all rejected applications for War Veterans Allowance to ensure that any alternative services, for which the applicant may be eligible, are brought to the attention of the veteran or widow.

At Mar. 31, 1957, there were 10,589 World War I and dual-service veterans registered for employment with the National Employment Service, a decrease of 653 over the previous year. At the same date there were 4,869 veterans employed in the Corps of Commissionaires, 2,410 by the Federal Government and 2,459 with provincial and municipal government and private organizations.

Assistance Fund.—Supplementary financial assistance is provided by the Assistance Fund to recipients under the War Veterans Allowance Act (*see p. 304*) who are in need. Assistance may be given as a continuing monthly grant in accordance with a formula which includes costs of shelter, fuel, food, clothing, personal care and certain health needs, or in single grants to meet needs not covered by the formula. During the two years ended Mar. 31, 1957, the maximum assistance available from the Fund was \$120 and \$144 per annum respectively to single and married recipients of WVA. However, these amounts were increased to \$240 and \$180 per year respectively as a result of the increases in rates and ceilings of the WVA Act which became effective on July 1, 1957.

Field work for the fund is done almost entirely by the Welfare Services Branch which, through counselling and referral, also assists applicants in other ways. Since a monthly Assistance Fund grant can be continued without interruption until there is a change in the recipient's financial circumstances the number of people assisted in any fiscal year is greater than the number applying during that period. A statistical summary of Fund activity during the years ended Mar. 31, 1956 and 1957 is as follows:—

| <i>Item</i> | <i>Mar. 31, 1956</i> | <i>Mar. 31, 1957</i> |
|---|----------------------|----------------------|
| Persons assisted.....No. | 6,256 | 8,331 |
| Persons applying during year....." | 3,847 | 4,765 |
| Applicants assisted....." | 3,074 | 4,273 |
| Proportion of applicants assisted.....p.c. | 80 | 90 |
| Fund expenditures during year.....\$ | 509,624 | 741,895 |
| Proportion of expenditures given in monthly grants.....p.c. | 78 | 78 |
| Persons in receipt of continuing monthly grants.....No. | 4,058 | 5,949 |

Education and Training.—By the end of March 1957, very few veterans were still eligible for training under the Veterans Rehabilitation Act and the Veterans Benefit Act, 1954. Still eligible were a few with service in the Korean theatre who had not been released from the Armed Forces, and those seriously disabled veterans whose rehabilitation could be assisted by training or retraining.

At Mar. 31, 1957, there were 119 World War II veterans and 42 of the Korean Operation taking university courses, and 65 and 44 respectively receiving vocational training.

Pensioned veterans of World War I and ex-members of the Regular and Reserve Forces who are also in receipt of pensions may be given training under the Pensioners Training Regulations if required to fit them for suitable employment. At the end of the 1956-57 fiscal year, eight such pensioners were taking university courses and 10 were receiving vocational training.

Children of deceased veterans are also eligible for training, under the terms of the Children of War Dead (Education Assistance) Act, if the Canadian Pension Commission has ruled that the deaths were attributable to war service and if, at some time, a pension has been paid on behalf of the children concerned. Assistance for an approved student consists of a training allowance of \$25 per month while in attendance at a training institution, and prescribed fees not exceeding \$500 for each academic year.

Awaiting Returns Allowance.—Only veterans who are settled under the Veterans' Land Act as full-time farmers or commercial fishermen are still eligible for awaiting returns allowances, which are \$50 per month for a single veteran and \$70 for a man and wife plus allowances for children. The allowance must be applied for within the year following settlement under VLA. Its purpose is to provide maintenance for the veteran and his family until an income has been developed from the farming or fishing venture and, in any event, it may not be continued for more than 12 months.

Up to Mar. 31, 1957, 62,732 veterans, including 55 ex-members of the Special Force, were approved for these allowances and 91 p.c. of them were discontinued as established. The total amount expended for this allowance from inception to the end of the 1956-57 fiscal year was \$27,129,445. At Mar. 31, 1957 there were 222 active cases.

Vetcraft Shops.—Vetcraft Shops manufacture poppies and wreaths to be distributed and sold by the Canadian Legion for Remembrance Day, thus providing sheltered employment to some 41 veterans as poppy workers and some 32 dependants as home workers on piece-work rates. Shops are operated at Toronto and Montreal with additional home assembly work being carried out at Winnipeg, Regina and Calgary. Some 6,300,000 poppies and 58,000 wreaths of a floralcraft type were manufactured for the 1956 campaign.

Section 3.—Life Insurance

Returned Soldiers' Insurance.—This insurance, issued under the authority of the Returned Soldiers' Insurance Act, was available to veterans of World War I. No applications were accepted after Aug. 31, 1933. A brief summary of Returned Soldiers' Insurance appears in the 1956 Year Book.

On Mar. 31, 1957, of the total of 48,319 policies issued there remained 11,322 policies in force for a face amount of \$23,864,638. Of these policies 3,259 were premium-paying, 7,135 were paid-up, 153 had been converted to Extended Term Insurance, and 775 were being covered under the disability provision of the policy contracts. Terminations from 1920 to 1957 totalled 36,997, of which 11,469 were by death, 16,642 by surrender for the cash value and 8,886 by lapse, expiry, or other mode of termination.

Veterans Insurance.—Veterans Insurance was available to veterans of World War II and of the Korean action. A brief summary of Veterans Insurance appears in the 1956 Year Book. As the period of eligibility to contract for this insurance for World War II veterans expired (except for veterans who still have unused Re-establishment Credit) ten years after their discharge, comparatively few of these veterans are now eligible. Korean veterans may contract for the insurance until Oct. 31, 1958.

The legislation has permitted acceptance of a markedly high proportion of the applications received, fewer than two per 1,000 having been declined. Of the 41,824 policies issued only 4.2 p.c. have lapsed during the first two policy years, an unusually low ratio. At the

end of March 1957, there were 29,655 policies in force with a face value of \$90,045,191. The death claim experience has followed a consistent pattern and is closely related to that observed for the general population.

3.—Death Claims Intimated, Years Ended Mar. 31, 1946-57 with Cumulative Totals 1921-45

| Year Ended Mar. 31— | Returned Soldiers Insurance | | Veterans Insurance | |
|---------------------|-----------------------------|------------|--------------------|---------|
| | No. | \$ | No. | \$ |
| 1921-45..... | 6,874 | 15,086,330 | — | — |
| 1946..... | 331 | 636,100 | 3 | 11,500 |
| 1947..... | 282 | 533,969 | 26 | 72,500 |
| 1948..... | 304 | 597,985 | 54 | 169,500 |
| 1949..... | 337 | 655,898 | 91 | 233,000 |
| 1950..... | 402 | 679,621 | 108 | 318,580 |
| 1951..... | 379 | 720,810 | 122 | 370,000 |
| 1952..... | 418 | 817,559 | 178 | 461,500 |
| 1953..... | 412 | 813,446 | 189 | 544,500 |
| 1954..... | 421 | 821,930 | 187 | 495,500 |
| 1955..... | 428 | 799,440 | 177 | 512,740 |
| 1956..... | 434 | 813,743 | 216 | 590,868 |
| 1957..... | 447 | 842,608 | 225 | 639,048 |

Section 4.—Land Settlement and Home Construction

Veterans' Land Act.—The Veterans' Land Act Branch is organized into eight Districts comprising 32 Regional Offices and 243 field areas across Canada. A resident Field Supervisor is responsible for each area and each Supervisor has an average of 250 active accounts involving a gross initial public investment of close to \$1,500,000. Each Field Supervisor is responsible for the sound appraisal of properties and the implementing of the Branch's supervised credit program through which veterans are assisted in the organization and management of their farms.

There are also 93 Construction Supervisors throughout the country whose main duties consist of giving practical advice to veteran-builders and supervising the actual construction, remodelling or extension of homes and other buildings. A continuous and progressive on-the-job program of staff training is conducted to ensure that the Supervisors keep abreast of the latest developments and newest techniques in land appraisal, farm organization, farm management and construction.

During the two years ended Mar. 31, 1957, \$23,963,805 became due under Veterans' Land Act contracts with veterans who paid, including pre-payments, \$24,142,354. As a further indication of the effectiveness of the supervised credit program of the Branch, less than 2 p.c. of the active accounts had arrears in excess of \$200, if on annual or semi-annual payments, or \$100 if paying monthly.

Nearly 22,000 settlers are using pre-arranged systems of making payments, 14,359 of whom are using post-dated cheque plans. A further 6,376 have given orders on pensions or have made salary assignments and, at the end of March 1957, there were 1,134 share-of-crop agreements in effect in the spring wheat areas of the Prairie Provinces. In addition, 2,610 veterans have completely repaid their contract debts.

The settlement of veterans of World War II and the Special Force under the Veterans' Land Act falls within four broad categories: farming or fishing as a full-time occupation; part-time farming in rural or semi-rural areas to supplement income from other employment; settlement, in general, or on pioneer land under agreements between the Federal Government and the provinces; and home building on city-sized lots by veterans who have been approved for a loan under the National Housing Act and who act as their own contractors.

The amounts of financial assistance and the repayment terms differ for the various types of settlement. A veteran being settled as a full-time farmer on other than provincial land may obtain financial assistance under Part I of the Act to a maximum of \$6,000 including \$1,200 for livestock and farm equipment, and \$3,000 under Part III of the Act.

Of the amount approved under Part I, exclusive of that for livestock and farm equipment, 10 p.c. is repayable as a down payment and 66 $\frac{2}{3}$ p.c. is repayable with interest at 3 $\frac{1}{2}$ p.c. over a maximum period of 25 years. Assistance under Part III is available on the basis of the veteran making a contribution of \$1 in cash or equivalent value for each \$2 loaned with the amount loaned fully repayable with interest at the rate of 5 p.c.

Part-time farmers and commercial fishermen may obtain financial assistance up to \$6,000 under Part I and \$1,400 under Part III. The amounts repayable and the interest rates are similar to those for full-time farmers.

Veterans being settled on federal or provincial lands and Indian veterans being settled on Indian reserves may obtain a grant of \$2,320 which is non-repayable provided they meet settlement terms and conditions for a period of 10 years.

Under Part II of the Act any qualified veteran, who has been approved for a loan under the National Housing Act may receive financial and other assistance to build his own home on any lot suitable for a single family dwelling. The maximum financial assistance available is \$8,000 which is repayable under a mortgage contract at the rate of interest chargeable under the National Housing Act.

At the end of March 1957, a total of \$382,792,157 had been expended on behalf of 75,356 veterans. There were 60,981 of the accounts still active at Mar. 31, 1957, including 1,500 Indian veterans settled on Indian reserves whose accounts are administered by the Department of Citizenship and Immigration. During the fiscal year 1956-57 approvals for assistance were made on behalf of 2,815 veterans of World War II and the Special Force including 526 for full-time farming; 1,867 for part-time farming; 25 for commercial fishing; 37 for settlement on Indian reserves; and 396 for home building on city-size lots. There were also 698 additional loans made to established full-time farmers under the provisions of Part III of the Act. These approvals involved the expenditure of approximately \$21,000,000 of public funds.

To Mar. 31, 1957, a total of 21,538 houses had been completed and another 1,838 were under construction. The 1,697 houses completed in 1956-57 was the highest total for any year since 1951-52. There were 1,397 new houses started during the year and another 946 veterans received approval to effect additions or improvements to their homes and other buildings.

A total of 10,367 veterans had earned their conditional grants as of Mar. 31, 1957, of which number 8,722 were earned in the fiscal year 1956-57. Titles to properties or chattels, or both, have been received by 3,473 of these veterans.

4.—Summary of Settlement Status, Loans and Grants under the Veterans' Land Act as at Mar. 31, 1957¹

| Item | Full-Time Farming | Small Holdings | Com-mercial Fishing | Mortgage Loans | Provincial Lands | Federal Lands | City-Size Lots | Total |
|---|-------------------|----------------|---------------------|----------------|------------------|---------------|----------------|-------------|
| Qualified but not yet settled..... No. | 3,521 | 12,732 | 118 | 2 | 251 | 65 | 1,903 | 18,590 |
| Approved for financial assistance..... No. | 27,045 | 38,645 | 1,055 | 957 | 4,773 | 429 | 915 | 73,819 |
| Amount approved for land and permanent improvements..... \$ | 110,613,560 | 197,477,073 | 3,339,678 | 1,242,497 | 4,517,447 | 897,061 | 7,263,854 | 325,351,170 |
| Amounts approved for stock and equipment \$ | 32,423,341 | 8,043,462 | 1,083,046 | 772,966 | 6,082,700 | 12,037 | ... | 48,417,552 |
| Average amount ap- proved per veteran.. \$ | 5,289 | 5,318 | 4,192 | 2,106 | 2,220 | 2,119 | 7,939 | 5,063 |
| Average conditional grant per veteran... \$ | 2,014 | 1,318 | 1,661 | ... | 2,220 | 2,119 | ... | 1,649 |

¹ Excludes Indian veterans on reserves.

² Included with full-time farming and small holdings.

5.—Summary of House Construction under the Veterans' Land Act as at Mar. 31, 1957

| Item | Full-Time Farming | Small Holdings | Commercial Fishing | Provincial Lands | Federal Lands | City-Size Lots | Total |
|---|-------------------|----------------|--------------------|------------------|---------------|----------------|---------------|
| | No. | No. | No. | No. | No. | No. | No. |
| Houses completed (from 1942)..... | 1,457 | 18,036 | 269 | 1,257 | 112 | 407 | 21,538 |
| Houses under construction..... | 160 | 1,020 | 7 | 178 | 10 | 463 | 1,838 |
| Houses projected..... | 240 | 574 | 9 | 128 | 2 | 2 | 955 |
| Net Applications for New Housing | 1,857 | 19,630 | 285 | 1,563 | 124 | 872 | 24,331 |

Section 5.—Pensions Advocates

Veterans Bureau.—The Veterans Bureau, which has completed its twenty-sixth year of operation, is a branch of the Department of Veterans Affairs and has an office under the direction of a District Pensions Advocate in all districts in Canada in which offices of the Department are situated.

During the year ended Mar. 31, 1957, 5,861 claims were submitted to the Pension Commission, with 8,103 in preparation at the end of the year. These figures showed little change from the 5,833 claims submitted during the previous fiscal year and 8,276 in preparation at the end of that year.

The duties of Pensions Advocates, most of whom are lawyers, are to assist former members of the Armed Forces and their dependants and former members of the various auxiliary organizations, such as merchant seamen, firefighters and others, in preparing and submitting claims to the Canadian Pension Commission. They also appear as counsel for applicants before the Appeal Boards of the Commission. No charge is made for the services of the Bureau.

Section 6.—Veterans Pensions

Previous issues of the Year Book contain information on the development of Canadian pension legislation, together with yearly statistics of numbers and liabilities. In the 1956 edition, pension data is given on pp. 304-305.

On Mar. 14, 1957, the Minister of Finance, in his Budget Speech, announced an upward revision in the basic scale of pensions under the Pension Act and an increase in the maximum helplessness allowance payable under the Act, to become effective July 1, 1957. This revision was given Parliamentary sanction in April 1957. It represents the third increase in basic pensions in the past ten years, the current rates being exactly double those which were in effect from 1920 to 1947. Over 159,000 disability pensioners benefited from the increases at an estimated increase in annual liability of \$15,150,248. Additionally, the estimated increase in annual liability for dependants, widows and parents, will be \$4,647,259.

The following gives a comparison of the new rates with those formerly in effect:—

| Item | Former Monthly Rate | Monthly Rate Effective July 1, 1957 |
|---|---------------------|-------------------------------------|
| | \$ | \$ |
| Single pensioner, 100 p.c. disability..... | 125 | 150 |
| Married pensioner, 100 p.c. disability..... | 170 | 200 |
| Pensioned widow..... | 100 | 115 |
| Dependent parent, maximum award..... | 75 | 90 |
| Two dependent parents, maximum award..... | 100 | 115 |

The new rates result in the basic scale being the same for all ranks up to and including Lieutenant-Colonel and equivalent ranks. Slightly higher rates are provided for Colonel and higher ranks and, although these were not increased, a married disability pensioner who held one of these ranks will benefit by the increase in additional pension for a wife, which is the same for all ranks.

The rates for children were not increased and for 100 p.c. disability pensioners (all ranks) they are \$20 a month for the first child, \$15 a month for the second child and \$12 a month for the third and any subsequent children.

Helplessness allowance, which is payable to a pensioner who is totally disabled and in need of attendance and which varies depending on the amount of attendance required, is paid in addition to pension. The maximum has been increased from \$1,400 to \$1,800 per annum.

The widow of a Lieutenant-Colonel or lower rank is now entitled to \$115 a month for herself and monthly payments of \$40 for the first child, \$30 for the second child and \$24 for the third and any subsequent children.

While the rates of pension for disability and pensioned widows are statutory and adjustments were made by Treasury Branch without reference to the Canadian Pension Commission, amounts payable to parents and in respect of helplessness are not fixed and a review of many thousands of cases was necessitated.

The Civilian War Pensions and Allowances Act.—This Act provides for the payment of pensions to, or on behalf of, persons who served in certain civilian groups that were closely associated with the World War II war effort, and who suffered injury or death as a result of such service. Among these groups are merchant seamen, salt-water fishermen, auxiliary services personnel, ferry pilots of the RAF Transport Command, firefighters who served in the United Kingdom, etc.

6.—Pensions in Force under the Pension Act as at Mar. 31, 1957

| Service | Disability | | Dependant | | Disability and Dependant | |
|--------------------|-------------------|-------------------|-------------------|-------------------|--------------------------|--------------------|
| | Pensions in Force | Liability | Pensions in Force | Liability | Pensions in Force | Liability |
| | No. | \$ | No. | \$ | No. | \$ |
| World War I..... | 54,409 | 35,979,827 | 15,040 | 16,980,655 | 69,449 | 52,960,482 |
| World War II..... | 102,514 | 56,619,776 | 18,199 | 17,219,087 | 120,713 | 73,838,863 |
| Peacetime..... | 821 | 395,886 | 389 | 592,030 | 1,210 | 987,916 |
| Special Force..... | 1,411 | 630,832 | 152 | 174,732 | 1,563 | 805,564 |
| Totals..... | 159,155 | 93,626,321 | 33,780 | 34,966,504 | 192,935 | 128,592,825 |

Section 7.—War Veterans Allowances

War Veterans Allowances are payable, in Canada only, to Canadian veterans of the Northwest Field Force, the South African War, World Wars I and II and the Korean Operation; and to veterans of Commonwealth and Allied forces who were domiciled in Canada at time of enlistment or, alternatively, have resided in Canada for 20 years. Allowances may also be paid to widows or orphans of eligible veterans. To be eligible for an allowance, a veteran must have served in both World Wars I and II and have been honourably discharged. Allowances are awarded subject to certain financial limitations to those whose age or physical and mental conditions meet the requirements of the Act.

The development of these allowances is reported in previous issues of the Year Book and the main provisions of the present Act are outlined in the 1956 edition at pp. 313-314.

While no changes* have since been made in the Act, provision was included in the Budget of Mar. 14, 1957, for increased rates and ceilings to be effective on July 1, 1957. On that date the maximum rates and annual income ceilings became:—

| <i>Recipient</i> | <i>Monthly Maximum Allowance</i> | <i>Annual Income Ceiling</i> |
|--|--|--------------------------------------|
| | \$ | \$ |
| Veterans and widow(er)s, single status..... | 60 | 960 |
| Veterans and widow(er)s, married status..... | 120 | 1,620 |
| Veterans with blind spouse..... | 120 | 1,740 |
| One orphan..... | 40 | 720 |
| Two orphans of one veteran..... | 70 | 1,200 |
| Three or more orphans of one veteran..... | 85 | 1,440 |

At the time these changes were announced, it was estimated that the increase would add nearly \$6,000,000 to the annual liability for the allowances.

The number of veterans and others in receipt of allowances at the close of each of the fiscal years 1952-57, and the amounts of allowances paid, are as follows:—

| <i>As at Mar. 31—</i> | <i>Veterans in Receipt of Allowances</i> | <i>Others in Receipt of Allowances</i> | <i>Total in Receipt of Allowances</i> | <i>Expenditures</i> |
|-----------------------|--|--|---|---------------------|
| | No. | No. | No. | \$ |
| 1952..... | 29,137 | 9,602 | 38,739 | 23,544,760 |
| 1953..... | 30,005 | 10,607 | 40,612 | 27,114,849 |
| 1954..... | 30,650 | 11,737 | 42,387 | 26,486,988 |
| 1955..... | 32,471 | 12,883 | 45,354 | 27,702,077 |
| 1956..... | 37,907 | 14,347 | 52,254 | 39,074,156 |
| 1957..... | 39,664 | 15,578 | 55,242 | 41,259,185 |

During the year ended Mar. 31, 1957, 56,165 cases were reviewed by the 18 District Authorities across Canada, and 16,160 by the War Veterans Allowance Board at Ottawa (see below), so that changes in the financial, physical or domestic circumstances of the recipients concerned might be reflected in the allowances being paid. Of the 412 decisions appealed during the year, 32 were allowed and 380 were disallowed.

Section 8.—Veterans Commissions and Boards

Canadian Pension Commission.—The Canadian Pension Commission is a statutory body charged with the administration of the Pension Act and the Civilian War Pensions and Allowances Act. The members of the Commission are appointed by the Governor in Council who may also impose upon the Commission duties in respect of any grants in the nature of pensions, etc., made under any statute other than the Pension Act. It reports to Parliament through the Minister of Veterans Affairs.

It is the responsibility of the Commission to adjudicate on claims for injury or disease resulting in disability or death, incurred during service with the Canadian Navy, Army or Air Force during war or peacetime. The Commission may also supplement certain awards of pension made by the British or Allied Governments (see 1956 Year Book, p. 304).

The Commission's representatives across Canada are called Pension Medical Examiners and they are located in most of the district offices of the Department of Veterans Affairs.

War Veterans Allowance Board.—The War Veterans Allowance Board is a statutory body set up to administer the War Veterans Allowance Act. The members are appointed by the Governor in Council and the Board reports to Parliament through the Minister of Veterans Affairs. Administration of the Act is decentralized across Canada through 18 District Authorities located in the district offices of the Department of Veterans Affairs.

* Effective Nov. 1, 1957, the Act was further amended by increasing the single rate to \$70 per month and by raising the annual income ceilings to \$1,080 for single recipients and \$1,740 for those who are married. Some changes were made also in the eligibility requirements with the result that additional groups of veterans and dependants may now be awarded allowances.

Much of the information on which decisions on applications for allowances are based is provided through investigations carried out by officers of the Veterans Welfare Services Branch.

In addition to defining policy, the Board adjudicates on appeals from decisions of the District Authorities and periodically reviews, on its own initiative, decisions of these Authorities.

Imperial War Graves Commission.—All Commonwealth Governments are members of the Commission, incorporated by Royal Charter in 1917, and are represented by their High Commissioners in London. The Commission is entrusted with the marking and maintenance, in perpetuity, of the graves of those of the British Commonwealth Armed Forces who lost their lives between Aug. 4, 1914 and Aug. 31, 1921, and between Sept. 3, 1939 and Dec. 31, 1947. The Commission erects memorials to commemorate those in unknown graves.

The Minister of Veterans Affairs is the Agent of the Commission in Canada and the office of the Secretary-General of the Canadian Agency is in the Veterans Affairs Building, Ottawa.

The area of responsibility of the Canadian Agency is the Continent of North America but it has also certain duties of inspection in Argentina, Bahamas, Barbados, Bermuda, Brazil, British Guiana, British Honduras, Chile, Costa Rica, Cuba, Falkland Islands, French West Indies, Guatemala, Hawaiian Islands, Jamaica, Leeward Islands, Netherlands Antilles, Panama Canal Zone, Peru, Puerto Rico, Trinidad, Uruguay, and Windward Islands.

In North America the Agency is responsible for about 13,000 War Graves in over 2,000 cemeteries. Approximately 3,400 servicemen of both wars, missing in operations while based in North America, are commemorated on the memorials erected at Victoria, B.C., and at Halifax, N.S.

It is expected that construction will be started early in 1958 on a memorial in Ottawa commemorating by name approximately 850 Commonwealth Air Forces servicemen who lost their lives in the Second World War while on operations from bases in Canada and the United States, and who have no known grave.

CHAPTER VII.—CRIME AND DELINQUENCY*

CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

Section 1.—Canadian Criminal Law and Procedure†

The system under which justice is administered in a State is never rigid. To have it so would be neither expedient nor indeed possible. A judicial system must grow and adapt itself to the requirements of the people and the exact limits of the powers of different legislative bodies require continued definition.

The criminal law of Canada has as its foundation the criminal common law of England built up through the ages and consisting first of customs and usages, and later expanded by principles enunciated by generations of judges. There is no statutory declaration of the introduction of English criminal law into those parts of Canada that are now the Provinces of New Brunswick, Nova Scotia and Prince Edward Island. Its introduction there depends upon a principle of the common law itself by which English law was declared to be in force in uninhabited territory discovered and planted by British subjects, except in so far as local conditions made it inapplicable. The same may be said of Newfoundland although the colony dealt with the subject in a statute of 1837. In Quebec its reception depends upon a Royal Proclamation of 1763 and the Quebec Act of 1774. In each of the other provinces and in the Yukon and Northwest Territories the matter has been dealt with by statute.

The judicial systems of the provinces as they exist today are based upon the British North America Act of 1867. Sect. 91 of the Act provides that "The exclusive legislative authority of the Parliament of Canada extends to . . . the criminal law, except the constitution of courts of criminal jurisdiction but including the procedure in criminal matters". By Sect. 92 (14), the legislature of the province exclusively may make laws in relation to "the administration of justice in the province, including the constitution, maintenance and

* Except as otherwise credited, this Chapter has been revised in the Judicial Section, Health and Welfare Division, Dominion Bureau of Statistics.

† Prepared by the Criminal Law Section, Department of Justice, Ottawa.

organization of provincial courts, both of civil and criminal jurisdiction and including procedure in civil matters in its courts". The Parliament of Canada may, however, (Sect. 101) establish any additional courts for the better administration of the laws of Canada. It should be noted that the Statute of Westminster, 1931, effected important changes particularly by abrogating the Colonial Laws Validity Act, 1865 (U.K.), and confirming the right of a dominion to make laws having extraterritorial operation. Particulars of the federal judiciaries are given in Chapter II, pp. 42-43 and provincial judiciaries are dealt with briefly at pp. 43-44; more detailed information on provincial judiciaries is given in the 1954 Year Book, pp. 48-55.

At the time of Confederation each of the colonies affected had its own body of statutes relating to the criminal law. In 1869 in an endeavour to assimilate them into a uniform system applicable throughout Canada, Parliament passed a series of Acts some of which dealt with offences of special kinds and others with procedure. Most notable of the latter was the Criminal Procedure Act, but other Acts provided for the speedy trial or summary trial of indictable offences, the powers and jurisdiction of justices of the peace in summary conviction matters and otherwise, and the procedure in respect of juvenile offenders.

Codification of the criminal law through a Criminal Code Bill founded on the English draft code of 1878, Stephen's *Digest of Criminal Law*, Burbidge's *Digest of the Canadian Criminal Law*, and the relevant Canadian statutes was brought about by the Minister of Justice, Sir John Thompson, in 1892. This Bill became the Criminal Code of Canada and came into force on July 1, 1893. It must be remembered, however, that the Criminal Code was not exhaustive of the criminal law. It was still necessary to refer to English law in certain matters of procedure and it was still possible to prosecute for offences at common law. Moreover, Parliament has declared offences against certain other Acts, e.g., the Opium and Narcotic Drug Act, to be criminal offences and the same was done in the Defence of Canada Regulations and the Wartime Prices and Trade Board Regulations (neither now in force) promulgated under the authority of the War Measures Act.

It is often difficult to distinguish between 'law' and 'procedure'. Procedure may be interpreted to relate simply to the organic working of the courts but, in a wider sense, it may also affect the rights or alter the legal relations arising out of any given state of facts. For present purposes it will be useful to note that writers on jurisprudence describe law as being substantive or adjective. "Substantive law is concerned with the ends which the administration of justice seeks; procedural (adjective) law deals with the means and instruments by which these ends are to be obtained."* With reference to the criminal law the former may be taken to include the provisions concerning criminal responsibility, the definition of 'offences' and the punishment for those offences, and the latter to include provisions for enforcement, e.g., powers to search and to arrest, for the modes of trial and for the proof of facts. Broadly speaking, the Criminal Code observes the distinction although it might appear that the provisions for preventive detention of habitual criminals and criminal sexual psychopaths partake of the nature of both classes.

An examination and study of the Criminal Code was authorized by Order in Council dated Feb. 3, 1949, and the Commission assigned the task of revising the Code presented its report with a draft Bill in February 1952. After coming before successive sessions of Parliament it was finally passed on June 15, 1954, and the new Criminal Code (2-3 Eliz. II, c. 51) came into effect on Apr. 1, 1955. A short outline of the system that existed under the repealed Code together with the major revisions effected by the new Code is given in the 1955 Year Book, pp. 295-298.

Since the Code came into force amendments have been few and of minor importance. An amendment relating to race meetings was passed in 1955 and in 1956 it was provided that motions for leave to appeal to the Supreme Court of Canada in criminal cases should be heard by a quorum (at least five) of the judges of that Court instead of by a single judge.

* Salmond on *Jurisprudence*, 7th Edition, p. 496.

Section 2.—Adult Offenders and Convictions

The main interest in criminal statistics is concerned with those persons guilty of the more serious crimes. Such offenders are fewer than those who commit summary conviction offences but, from the standpoint of the protection of society, they are more important.

In 1949 the basis of the statistics of indictable crimes was changed from *convictions* to *persons* so that the figures for 1949 and subsequent years are not comparable with those for previous years. Where any person is prosecuted at the same hearing for several offences, one offence must be selected for tabulation. The rule followed is to select that for which the proceedings were carried to the furthest stage—to conviction and sentence if the prisoner were tried on several charges; if there were several convictions, the offence selected is that for which the heaviest punishment was awarded; if the final result of proceedings on two or more charges were the same, the most serious offence (as measured by the maximum penalty allowed by the law) appears in the tables. Where a person was prosecuted for one offence and convicted of another (e.g., charged with murder and convicted of manslaughter), the case appears only under the offence for which he was convicted.

In the case of summary conviction offences the figures continue to be based on convictions and are thus comparable with those for earlier years.

Statistics include only cases finally determined within the year. Cases not entirely disposed of within the year (e.g., tried but sentence postponed) are held over for the next year's report.

Subsection 1.—Adults Convicted of Indictable Offences

During 1955 the courts of Canada dealt with 32,367 adults charged with 54,252 indictable crimes, of whom 28,273 were found guilty of 46,239 offences. These figures show little change from those of 1954 when 35,278 adults were charged with 56,847 indictable crimes and 30,848 were found guilty of 47,981 offences.

1.—Adults Convicted of Indictable Offences and Ratio per 10,000 Population 16 Years of Age or Over, by Province 1954 and 1955

| Province or Territory | 1954 | | 1955 | |
|--------------------------------------|----------------------|--|----------------------|--|
| | Persons Convicted | Ratio per 10,000 Population ¹ | Persons Convicted | Ratio per 10,000 Population ¹ |
| | No. | No. | No. | No. |
| Newfoundland..... | 645 | 28 | 611 | 26 |
| Prince Edward Island..... | 171 | 25 | 129 | 19 |
| Nova Scotia..... | 1,526 | 35 | 1,570 | 35 |
| New Brunswick..... | 735 | 22 | 751 | 22 |
| Quebec..... | 6,525 | 23 | 6,391 | 22 |
| Ontario..... | 12,412 | 35 | 10,836 | 30 |
| Manitoba..... | 1,739 | 31 | 1,558 | 27 |
| Saskatchewan..... | 1,184 | 20 | 1,072 | 18 |
| Alberta..... | 2,383 | 35 | 2,251 | 32 |
| British Columbia..... | 3,471 | 39 | 3,102 | 34 |
| Yukon and Northwest Territories..... | 57 | — | 2 | — |
| Canada..... | 30,848 | 30 | 28,273 | 27 |

¹ Per 10,000 population 16 years of age or over excluding the Yukon and Northwest Territories.

Indictable offences are grouped into six classes as shown in Table 2. In 1955 persons convicted of assaults of various kinds and obstructing police represented 79.4 p.c. of Class I, which covers crimes against the person. In that year 16 persons were convicted of murder, 7 of attempted murder and 43 of manslaughter as compared with 15, 4 and 81 respectively in 1954.

Classes II to V cover offences against property. Thieves predominate among the offenders in these classes, and burglars and robbers whose serious crimes involve acts of violence are the next most numerous. In Class VI which includes miscellaneous offences the most numerous convictions are for offences connected with the improper operation of motor vehicles. In 1955 there were 349 offenders under the Opium and Narcotic Drug Act, of whom 242 were convicted of possessing heroin, 249 were males and 308 were born in Canada. British Columbia courts convicted 59.3 p.c. of the drug offenders and Ontario courts 23.2 p.c.

2.—Adults Charged and Convicted of Indictable Offences by Class of Offence 1954 and 1955

| Class and Offence | 1954 | | | 1955 | | | Increase or Decrease in Persons Convicted |
|---|----------------|------------------|--------------|----------------|------------------|--------------|---|
| | Adults Charged | Adults Convicted | | Adults Charged | Adults Convicted | | |
| | | M. | F. | | M. | F. | |
| | No. | No. | No. | No. | No. | No. | p.c. |
| Class I.—Offences against the Person | 7,066 | 5,274 | 277 | 6,323 | 4,676 | 221 | -11.8 |
| Abduction | 26 | 17 | 1 | 24 | 8 | 4 | -33.3 |
| Assault, common, aggravated and on police | 4,802 | 3,539 | 226 | 4,486 | 3,330 | 153 | -7.5 |
| Offences against females ¹ | 1,083 | 834 | 10 | 855 | 641 | 19 | -21.8 |
| Manslaughter and murder | 169 | 90 | 6 | 112 | 55 | 4 | -38.5 |
| Attempted murder; shooting and wounding | 290 | 202 | 15 | 175 | 119 | 11 | -40.1 |
| Non-support, desertion | 162 | 134 | 4 | 92 | 70 | 4 | -46.4 |
| Other offences against the person | 534 | 458 | 15 | 579 | 453 | 26 | +1.3 |
| Class II.—Offences against Property with Violence | 5,181 | 4,678 | 65 | 5,020 | 4,542 | 64 | -2.9 |
| Burglary and robbery | 5,181 | 4,678 | 65 | 5,020 | 4,542 | 64 | -2.9 |
| Class III.—Offences against Property without Violence | 12,836 | 10,574 | 886 | 12,101 | 9,914 | 874 | -5.9 |
| Fraud, embezzlement and false pretences | 2,017 | 1,645 | 136 | 1,935 | 1,542 | 139 | -5.6 |
| Receiving stolen goods | 1,109 | 899 | 34 | 1,071 | 823 | 55 | -5.9 |
| Theft | 9,710 | 8,030 | 716 | 9,095 | 7,549 | 680 | -5.9 |
| Class IV.—Malicious Offences against Property | 381 | 312 | 15 | 603 | 464 | 30 | +51.1 |
| Arson | 74 | 55 | 5 | 107 | 63 | 14 | +28.3 |
| Malicious damage to property | 307 | 257 | 10 | 496 | 401 | 16 | +56.2 |
| Class V.—Forgery and Other Offences against the Currency | 742 | 636 | 75 | 764 | 661 | 65 | +2.1 |
| Offences against currency | 5 | 4 | — | 14 | 10 | — | +150.0 |
| Forgery and uttering forged documents | 737 | 632 | 75 | 750 | 651 | 65 | +1.3 |
| Class VI.—Offences not included in the Foregoing Classes | 9,072 | 7,561 | 495 | 7,556 | 6,311 | 451 | -16.1 |
| Dangerous or reckless driving | 847 | 656 | 6 | 307 | 245 | 3 | -62.5 |
| Driving car while ability impaired | 3,690 | 3,505 | 41 | 3,161 | 2,985 | 40 | -14.7 |
| Driving car while drunk | 1,100 | 897 | 6 | 751 | 641 | 10 | -27.9 |
| Opium and Narcotic Drug Act, offences against | 351 | 239 | 67 | 396 | 249 | 100 | +14.1 |
| Gambling and lotteries | 442 | 341 | 40 | 684 | 566 | 36 | +58.0 |
| Keeping bawdy houses and inmates | 287 | 51 | 196 | 265 | 65 | 137 | -18.2 |
| Various | 2,355 | 1,872 | 139 | 1,992 | 1,560 | 125 | -16.2 |
| Grand Totals | 35,278 | 29,035 | 1,813 | 32,367 | 26,568 | 1,705 | -8.3 |

¹ Includes abortion, assault against females or wife, indecent assault, carnal knowledge, incest, procuration, rape, attempted rape and seduction.

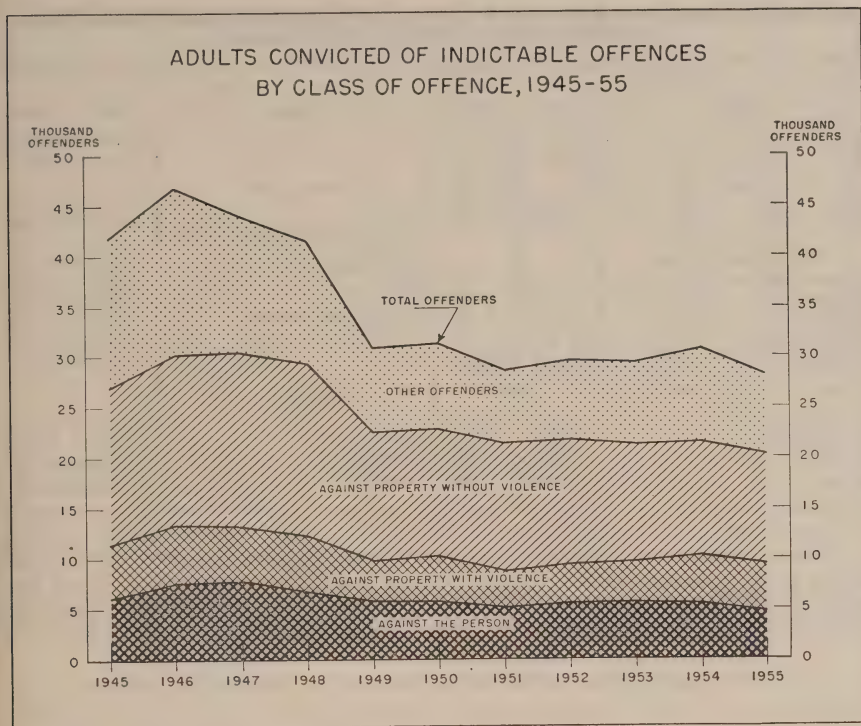


Table 3 shows that, in 1955, 56.9 p.c. of the persons convicted of indictable offences had not gone beyond elementary school grades in education, 40.4 p.c. were 24 years of age or younger, 11.2 p.c. were 45 years of age or over, and 74.5 p.c. lived in urban centres. Of these offenders 94.0 p.c. were males, 89.7 p.c. were born in Canada, 54.7 p.c. were unmarried, 23.5 p.c. were recorded as labourers and 7.5 p.c. had no remunerative employment. These percentages have changed very little in recent years.

3.—Persons Convicted of Indictable Offences classified by Occupation, Marital Status, Sex, Birthplace, etc., 1954 and 1955

| Item | 1954 | 1955 | Item | 1954 | 1955 |
|------------------------------------|---------------|---------------|----------------------------------|--------|--------|
| No. | No. | No. | No. | No. | No. |
| Total Convictions..... | 30,848 | 28,273 | TYPE OF OCCUPATION—concl. | | |
| TYPE OF OCCUPATION | | | Service—concluded | | |
| Agriculture..... | 1,956 | 1,717 | Public and protective..... | 99 | 91 |
| Armed Services..... | 753 | 695 | Student..... | 549 | 680 |
| Clerical..... | 821 | 858 | Other..... | 58 | 107 |
| Commercial and managerial..... | 2,388 | 2,198 | Transportation and communica- | 3,000 | 2,804 |
| Construction..... | 2,484 | 2,531 | Unemployed and retired (incl. | | |
| Finance and insurance..... | 86 | 76 | housewives)..... | 2,155 | 2,109 |
| Fishing, trapping and logging..... | 1,446 | 1,275 | Not given..... | 1,443 | 1,202 |
| Labourer..... | 7,959 | 6,647 | MARITAL STATUS | | |
| Manufacturing and mechanical..... | 3,062 | 2,953 | Single..... | 16,717 | 15,459 |
| Mining..... | 700 | 590 | Married..... | 11,524 | 10,417 |
| Service— | | | Widowed..... | 368 | 333 |
| Domestic..... | 707 | 618 | Divorced..... | 182 | 202 |
| Personal..... | 841 | 796 | Separated..... | 733 | 818 |
| Professional..... | 341 | 326 | Not given..... | 1,324 | 1,044 |

3.—Persons Convicted of Indictable Offences classified by Occupation, Marital Status, Sex, Birthplace, etc., 1954 and 1955—concluded

| Item | 1954 | 1955 | Item | 1954 | 1955 |
|------------------------------|--------|--------|--|--------|--------|
| | No. | No. | | No. | No. |
| SEX | | | BIRTHPLACE | | |
| Male..... | 29,035 | 26,568 | Canada..... | 26,961 | 25,351 |
| Female..... | 1,813 | 1,705 | British Isles and other Common-wealth..... | 809 | 617 |
| EDUCATIONAL STATUS | | | United States..... | 338 | 302 |
| Unable to read or write..... | 744 | 497 | Europe..... | 1,104 | 1,013 |
| Elementary..... | 16,949 | 16,092 | Asia..... | 82 | 73 |
| High School..... | 8,717 | 8,390 | Other foreign countries..... | 8 | 5 |
| Superior..... | 578 | 532 | Not given..... | 1,546 | 912 |
| Grade not stated..... | 1,262 | 551 | | | |
| Not given..... | 2,598 | 2,211 | RESIDENCE | | |
| AGE | | | Urban centres..... | 22,657 | 21,073 |
| 16 to 19 years..... | 5,547 | 5,557 | Rural districts..... | 7,353 | 6,584 |
| 20 to 24 years..... | 6,660 | 5,879 | Indeterminate..... | 82 | 138 |
| 25 to 44 years..... | 14,125 | 12,880 | Not given..... | 756 | 478 |
| 45 years or over..... | 3,503 | 3,171 | | | |
| Not given..... | 1,013 | 786 | | | |

Female Offenders.—There were 1,705 female offenders convicted of indictable offences in 1955, 39.1 p.c. of whom were in Ontario and 21.1 p.c. in Quebec. Of the total convicted in that year 43.1 p.c. were found guilty of theft and receiving stolen goods and 9.1 p.c. were committed for assault. Three women were convicted of manslaughter.

4.—Females Convicted of Indictable Offences by Province 1954 and 1955

| Province or Territory | Females Convicted | | Females Convicted to Total Convictions | |
|--------------------------------------|-------------------|--------------|--|------------|
| | 1954 | 1955 | 1954 | 1955 |
| | No. | No. | p.c. | p.c. |
| Newfoundland..... | 35 | 42 | 5.4 | 6.9 |
| Prince Edward Island..... | 5 | 6 | 2.9 | 4.7 |
| Nova Scotia..... | 51 | 65 | 3.3 | 4.1 |
| New Brunswick..... | 26 | 25 | 3.5 | 3.3 |
| Quebec..... | 416 | 360 | 6.4 | 5.6 |
| Ontario..... | 695 | 666 | 5.6 | 6.1 |
| Manitoba..... | 172 | 167 | 9.9 | 10.7 |
| Saskatchewan..... | 46 | 46 | 3.9 | 4.3 |
| Alberta..... | 142 | 116 | 6.0 | 5.2 |
| British Columbia..... | 222 | 212 | 6.4 | 6.8 |
| Yukon and Northwest Territories..... | 3 | — | 5.3 | — |
| Canada..... | 1,813 | 1,705 | 5.9 | 6.0 |

Multiple Convictions.—Table 5 shows the number of persons having more than one conviction at a court appearance for the years 1951-55. Multiple convictions occur most often in cases of forgery and uttering, false pretences, theft, receiving stolen goods and burglary.

5.—Persons Convicted of More than One Offence at the Time of Trial compared with Persons Convicted of One Offence 1951-55

| Item | 1951 | 1952 | 1953 | 1954 | 1955 |
|---|---------------|---------------|---------------|---------------|---------------|
| | No. | No. | No. | No. | No. |
| Persons Convicted of— | | | | | |
| 2 offences..... | 1,669 | 2,409 | 3,248 | 3,265 | 3,280 |
| 3 "..... | 562 | 759 | 971 | 1,713 | 1,089 |
| 4 "..... | 248 | 360 | 437 | 256 | 528 |
| 5 "..... | 162 | 186 | 259 | 154 | 306 |
| 6 "..... | 117 | 144 | 222 | 89 | 189 |
| 7 "..... | 75 | 106 | 122 | 58 | 126 |
| 8 "..... | 50 | 79 | 92 | 44 | 113 |
| 9 "..... | 26 | 51 | 67 | 27 | 91 |
| 10 "..... | 32 | 47 | 52 | 54 | 56 |
| 11 to 20 offences..... | 84 | 139 | 179 | 194 | 200 |
| 21 offences or over..... | 28 | 60 | 57 | 65 | 92 |
| Totals, Convicted of More than One Offence..... | 3,053 | 4,330 | 5,706 | 5,919 | 6,070 |
| Totals, Convicted of One Offence..... | 25,927 | 25,431 | 23,861 | 24,929 | 22,203 |
| Grand Totals..... | 28,980 | 29,761 | 29,567 | 30,848 | 28,273 |

Disposition of Cases and Recidivism.—Of all suspects before the courts for indictable crimes in 1955, 87.4 p.c. were adjudged guilty; the convictions against males (87.8 p.c.) constituted a higher percentage than those against females (81.0 p.c.) and varied considerably between provinces. Prince Edward Island showed the highest percentage (99.2 p.c.) of convictions and Nova Scotia the lowest (79.8 p.c.).

6.—Persons Charged and Convictions for Indictable Offences by Province 1954 and 1955

| Province or Territory | 1954 | | | 1955 | | |
|--------------------------------------|---------------|---------------|-------------|---------------|---------------|-------------|
| | Charges | Convictions | | Charges | Convictions | |
| | No. | No. | p.c. | No. | No. | p.c. |
| Newfoundland..... | 712 | 645 | 90.6 | 667 | 611 | 91.6 |
| Prince Edward Island..... | 171 | 171 | 100.0 | 130 | 129 | 99.2 |
| Nova Scotia..... | 1,915 | 1,526 | 79.7 | 1,967 | 1,570 | 79.8 |
| New Brunswick..... | 784 | 735 | 93.8 | 783 | 751 | 95.9 |
| Quebec..... | 7,302 | 6,525 | 89.4 | 7,248 | 6,391 | 88.2 |
| Ontario..... | 14,898 | 12,412 | 83.3 | 12,959 | 10,836 | 85.2 |
| Manitoba..... | 1,838 | 1,739 | 94.6 | 1,636 | 1,558 | 95.2 |
| Saskatchewan..... | 1,248 | 1,184 | 94.9 | 1,134 | 1,072 | 94.5 |
| Alberta..... | 2,487 | 2,383 | 95.8 | 2,385 | 2,251 | 94.4 |
| British Columbia..... | 3,866 | 3,471 | 89.8 | 3,456 | 3,102 | 89.8 |
| Yukon and Northwest Territories..... | 57 | 57 | 100.0 | 2 | 2 | 100.0 |
| Canada..... | 35,278 | 30,848 | 87.4 | 32,367 | 28,273 | 87.4 |

In 1955, 45.6 p.c. of the convicted persons had no previous conviction, 8.8 p.c. had previously been found guilty of one offence and 19.0 p.c. had two or more earlier convictions. Court records for the other 26.6 p.c. were not obtained.

7.—Persons Charged with Indictable Offences and Disposition of Cases and Recidivism, 1954 and 1955

| Item | 1954 | 1955 | Item | 1954 | 1955 |
|---|--------|--------|-----------------------------|--------|--------|
| | No. | No. | | No. | No. |
| Charges..... | 35,278 | 32,367 | Convictions of males..... | 29,035 | 26,568 |
| Acquittals..... | 4,216 | 3,936 | Convictions of females..... | 1,813 | 1,705 |
| Disagreement of jury..... | 4 | 9 | First convictions..... | 13,082 | 12,894 |
| Stay of proceedings..... | 141 | 97 | Second convictions..... | 2,477 | 2,482 |
| No bill and <i>nolle prosequi</i> | 17 | 9 | Reiterated convictions..... | 5,639 | 5,369 |
| Detention because of insanity..... | 52 | 43 | Not given..... | 9,650 | 7,528 |

Sentences.—In 1955, 32.9 p.c. of the persons convicted of indictable crimes were fined, 33.4 p.c. were sent to gaol without option of fine, 6.0 p.c. were committed to reformatories and 7.4 p.c. to penitentiaries, and 20.3 p.c. were given suspended sentences or put on probation. Eight habitual criminals were given preventive detention, four persons received life sentences and 16 were given the death penalty. The proportions in 1955 were much the same as in recent preceding years.

8.—Sentences given for Indictable Offences by Province 1954 and 1955

| Sentence | Nfld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Yukon and N.W.T. | Canada |
|---|------------|------------|--------------|------------|--------------|---------------|--------------|--------------|--------------|--------------|------------------------|---------------|
| | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| 1954 | | | | | | | | | | | | |
| Option of fine..... | 306 | 106 | 646 | 239 | 2,228 | 4,047 | 490 | 391 | 839 | 1,266 | 13 | 10,571 |
| Gaol— | | | | | | | | | | | | |
| Under one year..... | 193 | 32 | 350 | 250 | 2,221 | 3,245 | 490 | 483 | 770 | 1,032 | 29 | 9,095 |
| One year or over..... | 4 | 2 | 21 | 19 | 318 | 574 | 140 | 155 | 254 | 228 | 4 | 1,719 |
| Reformatory..... | 1 | — | 2 | 6 | 92 | 1,217 | 41 | — | 21 | 104 | — | 1,484 |
| Penitentiary— | | | | | | | | | | | | |
| Two years and under five.. | 30 | 9 | 144 | 71 | 698 | 496 | 84 | 52 | 192 | 240 | 2 | 2,018 |
| Five years or over..... | 2 | — | 11 | 2 | 141 | 89 | 13 | 7 | 12 | 47 | — | 324 |
| Life..... | — | — | — | — | 11 | 1 | 1 | — | — | — | — | 13 |
| Death..... | — | — | — | 1 | 3 | 6 | — | — | 2 | 2 | 1 | 15 |
| Suspended sentence or other disposition..... | 109 | 22 | 352 | 147 | 813 | 2,737 | 480 | 96 | 293 | 552 | 8 | 5,609 |
| Totals, 1954..... | 645 | 171 | 1,526 | 735 | 6,525 | 12,412 | 1,739 | 1,184 | 2,383 | 3,471 | 57 | 30,848 |
| 1955 | | | | | | | | | | | | |
| Option of fine..... | 248 | 67 | 638 | 325 | 2,276 | 3,297 | 433 | 389 | 770 | 868 | 1 | 9,312 |
| Gaol— | | | | | | | | | | | | |
| Under one year..... | 211 | 36 | 379 | 206 | 2,220 | 2,500 | 405 | 394 | 746 | 940 | 1 | 8,038 |
| One year or over..... | 10 | 3 | 22 | 13 | 248 | 446 | 113 | 91 | 206 | 244 | — | 1,396 |
| Reformatory..... | 3 | 1 | 9 | 1 | 78 | 1,366 | 34 | — | 18 | 179 | — | 1,689 |
| Penitentiary— | | | | | | | | | | | | |
| Two years and under five.. | 25 | 6 | 128 | 58 | 542 | 492 | 92 | 47 | 169 | 216 | — | 1,775 |
| Five years or over..... | 5 | 2 | 12 | 6 | 82 | 84 | 18 | — | 23 | 73 | — | 305 |
| Life..... | — | — | — | — | 2 | — | — | — | 1 | 1 | — | 4 |
| Death..... | — | — | — | 1 | 1 | 3 | 5 | — | 1 | 5 | — | 16 |
| Suspended sentence or other disposition..... | 109 | 14 | 382 | 141 | 942 | 2,648 | 458 | 151 | 317 | 576 | — | 5,738 |
| Totals, 1955..... | 611 | 129 | 1,570 | 751 | 6,391 | 10,836 | 1,558 | 1,072 | 2,251 | 3,102 | 2 | 28,273 |

Court Proceedings.—In 1955, 66.4 p.c. of the persons tried by jury were convicted; speedy trials (by court after waiver of jury trial) brought convictions in 77.1 p.c. of the cases so tried and summary trials by magistrates ended in convictions in 88.4 p.c. of the cases. Of persons charged on indictment 93.5 p.c. were tried by magistrate or family and juvenile court judge, 3.5 p.c. in county and district courts and 3.0 p.c. in higher courts.

9.—Method of Trial of Persons Charged with Indictable Crimes, showing Disposition of Cases by Sex and by Province 1954 and 1955

| Method of Trial | Nfld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Yukon and N.W.T. | Canada |
|--|------------|------------|--------------|------------|--------------|---------------|--------------|--------------|--------------|--------------|------------------|---------------|
| | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| 1954 | | | | | | | | | | | | |
| By Jury— | | | | | | | | | | | | |
| Convicted..... | M. 5 | 2 | 23 | 1 | 117 | 169 | 26 | 27 | 49 | 65 | — | 484 |
| | F. — | — | 1 | — | 12 | 7 | 1 | 1 | 2 | 3 | — | 27 |
| Acquitted..... | M. 5 | — | 14 | 1 | 40 | 73 | 10 | 5 | 8 | 44 | — | 200 |
| | F. — | — | 1 | — | 2 | 8 | 1 | — | — | 6 | — | 18 |
| Detained because of insanity..... | M. — | — | — | — | — | 2 | — | 2 | 1 | 1 | — | 6 |
| Disagreement of Jury. Stay of Proceedings... No Bill and Nolle Prosequi..... | M. — | — | 1 | — | 2 | 13 | 1 | 1 | 1 | 8 | — | 27 |
| | F. — | — | — | — | — | 1 | — | — | — | — | — | 1 |
| By Speedy Trial— | | | | | | | | | | | | |
| Convicted..... | M. — | 7 | 47 | 17 | 432 | 320 | 42 | 36 | 103 | 172 | 1 | 1,177 |
| | F. — | — | — | — | 12 | 16 | 2 | 2 | 3 | 7 | — | 42 |
| Acquitted..... | M. — | — | 2 | 7 | 139 | 130 | 16 | 11 | 19 | 27 | — | 351 |
| | F. — | — | — | — | 11 | 9 | 2 | — | 3 | 4 | — | 29 |
| Detained because of insanity..... | M. — | — | — | — | — | — | — | — | 1 | — | — | 1 |
| Stay of Proceedings... No Bill and Nolle Prosequi..... | M. — | — | — | 2 | 1 | — | 1 | — | 6 | 3 | — | 13 |
| | F. — | — | — | — | — | — | — | — | — | — | — | — |
| By Summary Trial— | | | | | | | | | | | | |
| Convicted..... | M. 605 | 157 | 1,405 | 691 | 5,560 | 11,228 | 1,499 | 1,075 | 2,089 | 3,012 | 53 | 27,374 |
| | F. 35 | 5 | 50 | 26 | 392 | 672 | 169 | 43 | 137 | 212 | 3 | 1,744 |
| Acquitted..... | M. 55 | — | 325 | 34 | 495 | 2,035 | 35 | 44 | 57 | 213 | — | 3,293 |
| | F. 7 | — | 35 | 3 | 54 | 193 | 3 | 1 | 5 | 24 | — | 325 |
| Detained because of insanity..... | M. — | — | 11 | 2 | 10 | 17 | — | — | 1 | — | — | 41 |
| | F. — | — | — | — | — | 4 | — | — | — | — | — | 4 |
| Stay of Proceedings... No Bill and Nolle Prosequi..... | M. — | — | — | — | 18 | 1 | 29 | — | 2 | 54 | — | 104 |
| | F. — | — | — | — | 5 | — | 1 | — | — | 11 | — | 17 |
| Totals, Persons Charged. | 712 | 171 | 1,915 | 784 | 7,302 | 14,898 | 1,838 | 1,248 | 2,487 | 3,866 | 57 | 35,278 |
| Totals, Persons Convicted, 1954..... | 645 | 171 | 1,526 | 735 | 6,525 | 12,412 | 1,739 | 1,184 | 2,383 | 3,471 | 57 | 30,848 |
| 1955 | | | | | | | | | | | | |
| By Jury— | | | | | | | | | | | | |
| Convicted..... | M. 7 | 1 | 33 | 16 | 119 | 174 | 39 | 22 | 16 | 113 | — | 540 |
| | F. — | — | — | 2 | 9 | 8 | — | 3 | — | — | — | 22 |
| Acquitted..... | M. 5 | 1 | 14 | 7 | 51 | 100 | 4 | 9 | 6 | 32 | — | 229 |
| | F. — | — | 3 | 1 | 3 | 6 | 3 | — | — | — | — | 16 |
| Detained because of insanity..... | M. — | — | 1 | — | 1 | 3 | 1 | 2 | — | — | — | 8 |
| Disagreement of Jury. Stay of Proceedings... No Bill and Nolle Prosequi..... | M. — | — | 3 | 3 | 2 | 11 | 3 | — | 1 | 6 | — | 29 |
| | F. 1 | — | — | — | — | 1 | — | — | — | — | — | 2 |
| By Speedy Trial— | | | | | | | | | | | | |
| Convicted..... | M. — | 7 | 63 | 7 | 226 | 358 | 30 | 24 | 126 | 91 | — | 932 |
| | F. — | — | — | 1 | 13 | 11 | 1 | 1 | 7 | 7 | — | 41 |
| Acquitted..... | M. — | — | 3 | 2 | 26 | 143 | 19 | 7 | 34 | 30 | — | 264 |
| | F. — | — | — | — | 3 | 9 | — | — | 2 | 2 | — | 16 |
| Detained because of insanity..... | M. — | — | — | — | 1 | — | — | — | — | — | — | 1 |
| Stay of Proceedings... No Bill and Nolle Prosequi..... | M. — | — | — | — | 4 | — | — | — | 2 | 2 | — | 8 |

9.—Method of Trial of Persons Charged with Indictable Crimes, showing Disposition of Cases by Sex and by Province 1954 and 1955—concluded

| Method of Trial | Nfld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Yukon and N.W.T. | Canada |
|--|------------|------------|--------------|------------|--------------|---------------|--------------|--------------|--------------|--------------|------------------|---------------|
| | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| By Summary Trial— | | | | | | | | | | | | |
| Convicted..... | M. 562 | 115 | 1,409 | 703 | 5,686 | 9,638 | 1,322 | 980 | 1,993 | 2,686 | 2 | 25,096 |
| | F. 42 | 6 | 65 | 22 | 338 | 647 | 166 | 42 | 109 | 205 | — | 1,642 |
| Acquitted..... | M. 46 | — | 322 | 17 | 659 | 1,643 | 31 | 37 | 79 | 233 | — | 3,067 |
| | F. 4 | — | 45 | 1 | 57 | 195 | 9 | 6 | 8 | 19 | — | 344 |
| Detained because of insanity..... | M. — | — | 4 | 1 | 11 | 9 | — | — | 2 | — | — | 27 |
| | F. — | — | 2 | — | 2 | 3 | — | — | — | — | — | 7 |
| Stay of Proceedings... No Bill and <i>Nolle Prosequi</i> | M. — | — | — | — | 34 | — | 7 | 1 | — | 21 | — | 63 |
| | F. — | — | — | — | 3 | — | 1 | — | — | 9 | — | 13 |
| Totals, Persons Charged. | 667 | 130 | 1,967 | 783 | 7,248 | 12,959 | 1,636 | 1,134 | 2,385 | 3,456 | 2 | 32,367 |
| Totals, Persons Convicted, 1955..... | 611 | 129 | 1,570 | 751 | 6,391 | 10,836 | 1,558 | 1,072 | 2,251 | 3,102 | 2 | 28,273 |

10.—Persons Charged and Convicted of Indictable Crimes according to Trial Court by Province 1954 and 1955

| Province or Territory | 1954 | | | | | 1955 | | | | |
|----------------------------------|---------------------------------------|--------------------------|--------------|--------------|---------------|---------------------------------------|--------------------------|--------------|--------------|---------------|
| | Persons Charged and Convicted by— | | | | | Persons Charged and Convicted by— | | | | |
| | Police Magistrate or Recorder's Court | Juvenile or Family Court | County Court | Higher Court | Totals | Police Magistrate or Recorder's Court | Juvenile or Family Court | County Court | Higher Court | Totals |
| | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| Newfoundland— | | | | | | | | | | |
| Charged..... | 684 | 18 | — | 10 | 712 | 618 | 36 | — | 13 | 667 |
| Convicted..... | 623 | 17 | — | 5 | 645 | 568 | 36 | — | 7 | 611 |
| Prince Edward Island— | | | | | | | | | | |
| Charged..... | 162 | — | 7 | 2 | 171 | 121 | — | 7 | 2 | 130 |
| Convicted..... | 162 | — | 7 | 2 | 171 | 121 | — | 7 | 1 | 129 |
| Nova Scotia— | | | | | | | | | | |
| Charged..... | 1,823 | 3 | 48 | 41 | 1,915 | 1,847 | — | 66 | 54 | 1,967 |
| Convicted..... | 1,453 | 2 | 47 | 24 | 1,526 | 1,474 | — | 63 | 33 | 1,570 |
| New Brunswick— | | | | | | | | | | |
| Charged..... | 755 | 1 | 27 | 1 | 784 | 742 | 2 | 22 | 17 | 783 |
| Convicted..... | 716 | 1 | 18 | — | 735 | 723 | 2 | 15 | 11 | 751 |
| Quebec— | | | | | | | | | | |
| Charged..... | 6,061 | 473 | 595 | 173 | 7,302 | 6,236 | 554 | 273 | 185 | 7,248 |
| Convicted..... | 5,481 | 471 | 444 | 129 | 6,525 | 5,482 | 542 | 239 | 128 | 6,391 |
| Ontario— | | | | | | | | | | |
| Charged..... | 14,116 | 34 | 534 | 214 | 14,898 | 12,082 | 53 | 528 | 296 | 12,959 |
| Convicted..... | 11,868 | 32 | 367 | 145 | 12,412 | 10,234 | 51 | 376 | 175 | 10,836 |
| Manitoba— | | | | | | | | | | |
| Charged..... | 1,637 | 99 | 63 | 39 | 1,838 | 1,433 | 103 | 49 | 51 | 1,636 |
| Convicted..... | 1,570 | 98 | 44 | 27 | 1,739 | 1,385 | 103 | 30 | 40 | 1,558 |
| Saskatchewan— | | | | | | | | | | |
| Charged..... | 1,141 | 1 | 48 | 37 | 1,248 | 1,066 | — | 31 | 37 | 1,134 |
| Convicted..... | 1,097 | 1 | 37 | 29 | 1,184 | 1,022 | — | 25 | 25 | 1,072 |
| Alberta— | | | | | | | | | | |
| Charged..... | 2,283 | 8 | 42 | 154 | 2,487 | 2,191 | — | 35 | 159 | 2,385 |
| Convicted..... | 2,218 | 8 | 35 | 122 | 2,383 | 2,102 | — | 33 | 116 | 2,251 |
| British Columbia— | | | | | | | | | | |
| Charged..... | 3,289 | 237 | 215 | 125 | 3,866 | 2,878 | 295 | 133 | 150 | 3,456 |
| Convicted..... | 2,988 | 236 | 179 | 68 | 3,471 | 2,610 | 281 | 99 | 112 | 3,102 |
| Yukon and Northwest Territories— | | | | | | | | | | |
| Charged..... | 56 | — | — | 1 | 57 | 2 | — | — | — | 2 |
| Convicted..... | 56 | — | — | 1 | 57 | 2 | — | — | — | 2 |
| Canada— | | | | | | | | | | |
| Charged..... | 32,007 | 874 | 1,579 | 797 | 35,278 | 29,216 | 1,043 | 1,144 | 964 | 32,367 |
| Convicted..... | 28,232 | 866 | 1,178 | 552 | 30,848 | 25,723 | 1,015 | 887 | 648 | 28,273 |

¹ Includes 21 charged and 20 convicted by justices of the peace.

Subsection 2.—Young Adult Offenders (16-24 Years)

Young men and women from 16 to 24 years of age each year form about 43.0 p.c. of the criminal population who commit indictable offences but they comprise less than 19.5 p.c. of the total population 16 years of age or over. As this age group includes some of the most daring offenders who may be already experienced criminals as well as first offenders likely to be turned from crime by further education and training, it seems worth while to give consideration to offenders in this group as distinct from offenders in the older age groups.

Of the young offenders in 1955, 70.7 p.c. were tried in three provinces—Ontario 37.9 p.c., Quebec 22.4 p.c., and British Columbia 10.4 p.c.; 48.6 p.c. of them were still under 20 years of age.

11.—Young Adult Offenders by Age Group, Sex and Province 1954 and 1955

| Age Group and Sex | Nfld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Yukon and N.W.T. | Canada |
|--------------------------|------------|-----------|------------|------------|--------------|--------------|------------|------------|--------------|--------------|------------------------|---------------|
| | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| 1954 | | | | | | | | | | | | |
| 16 - 17 years.....M. | 60 | 10 | 120 | 53 | 659 | 905 | 101 | 111 | 207 | 381 | — | 2,607 |
| F. | — | — | 6 | 4 | 44 | 52 | 23 | 3 | 15 | 15 | — | 162 |
| 18 - 19 ".....M. | 44 | 11 | 150 | 69 | 506 | 1,075 | 148 | 152 | 232 | 251 | 6 | 2,644 |
| F. | 6 | — | 6 | 2 | 15 | 51 | 15 | 7 | 18 | 14 | — | 134 |
| 20 - 24 ".....M. | 137 | 36 | 352 | 144 | 1,301 | 2,431 | 344 | 289 | 547 | 685 | 13 | 6,279 |
| F. | 6 | 3 | 8 | 6 | 100 | 138 | 37 | 6 | 35 | 41 | 1 | 381 |
| Totals, 1954..... | 253 | 60 | 642 | 278 | 2,625 | 4,652 | 668 | 568 | 1,054 | 1,387 | 20 | 12,207 |
| 1955 | | | | | | | | | | | | |
| 16 - 17 years.....M. | 53 | 16 | 130 | 55 | 629 | 966 | 98 | 106 | 173 | 348 | — | 2,574 |
| F. | 4 | 1 | 8 | 4 | 36 | 56 | 32 | 7 | 9 | 12 | — | 169 |
| 18 - 19 ".....M. | 45 | 14 | 154 | 77 | 511 | 1,079 | 140 | 142 | 235 | 262 | — | 2,659 |
| F. | 3 | 1 | 8 | 1 | 20 | 73 | 14 | 5 | 14 | 16 | — | 155 |
| 20 - 24 ".....M. | 154 | 21 | 368 | 141 | 1,294 | 2,045 | 297 | 256 | 472 | 527 | 1 | 5,576 |
| F. | 9 | 1 | 6 | 3 | 77 | 119 | 31 | 8 | 22 | 27 | — | 303 |
| Totals, 1955..... | 268 | 54 | 674 | 281 | 2,567 | 4,338 | 612 | 524 | 925 | 1,192 | 1 | 11,436 |

In 1955, 12 of the 40 men found guilty of manslaughter and 24 of the 47 convicted of rape were under 25 years of age; 62.2 p.c. of the men found guilty of burglary and robbery were in that group as well as 46.6 p.c. of those convicted of offences against property without violence, which includes all thefts, 47.6 p.c. of those who maliciously damaged property, 40.5 p.c. of those found carrying offensive weapons and 57.5 p.c. of the prison escapees.

There were 1,705 women offenders in 1955, 627 of them under 25 years of age; nearly half (310) of the young offenders were guilty of theft and receiving stolen goods. Of the 100 women convicted under the Opium and Narcotic Drug Act, 30 were in the young adult group as were 33 of the 65 found guilty of forgery and uttering; 17 of the 22 female prison escapees were also young women.

12.—Young Adult Offenders Convicted of Indictable Offences, by Class of Offence and Sex 1954 and 1955

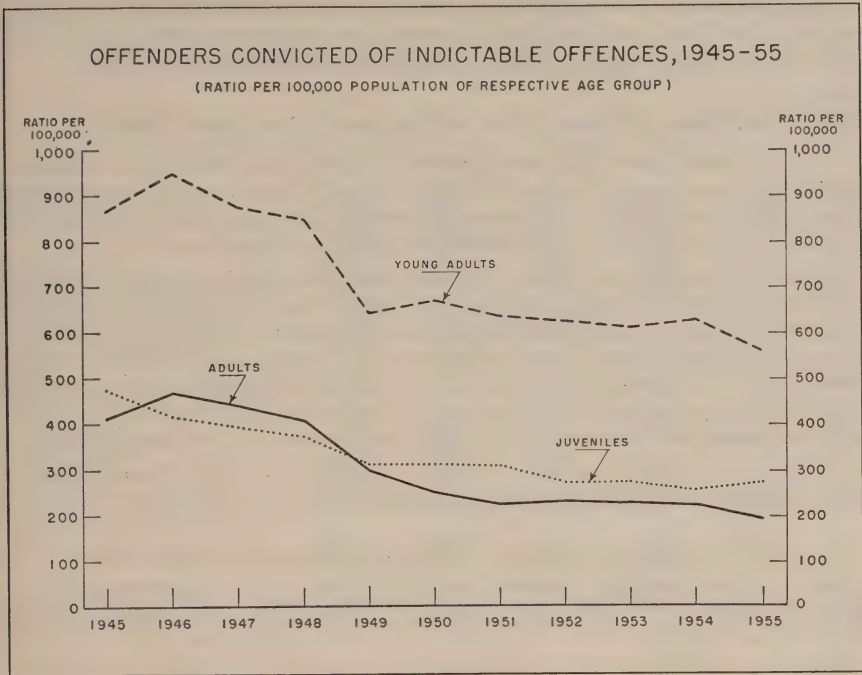
| Class and Offence | 1954 | | 1955 | |
|---|---------------|------------|---------------|------------|
| | Male | Female | Male | Female |
| | No. | No. | No. | No. |
| Class I.—Offences against the Person | 1,686 | 65 | 1,541 | 46 |
| Abduction..... | 10 | — | 4 | 1 |
| Assault, common and aggravated..... | 827 | 35 | 723 | 13 |
| Offences against females ¹ | 224 | 3 | 222 | 3 |
| Manslaughter and murder..... | 27 | 2 | 20 | — |
| Attempted murder; shooting and wounding..... | 68 | 1 | 38 | 3 |
| Non-support, desertion and cruelty to children..... | 17 | 4 | 5 | — |
| Other offences against the person..... | 513 | 20 | 529 | 26 |
| Class II.—Offences against Property with Violence | 2,895 | 47 | 2,824 | 34 |
| Burglary and robbery..... | 2,895 | 47 | 2,824 | 34 |
| Class III.—Offences against Property without Violence | 4,843 | 363 | 4,625 | 363 |
| Fraud, embezzlement and false pretences..... | 363 | 38 | 324 | 53 |
| Receiving stolen goods..... | 381 | 13 | 315 | 19 |
| Theft..... | 4,099 | 312 | 3,986 | 291 |
| Class IV.—Malicious Offences against Property | 180 | 5 | 221 | 11 |
| Arson..... | 27 | 3 | 22 | 3 |
| Malicious damage to property..... | 153 | 2 | 199 | 8 |
| Class V.—Forgery and Other Offences against the Currency | 225 | 31 | 246 | 33 |
| Offences against currency..... | 1 | — | — | — |
| Forgery and uttering forged documents..... | 224 | 31 | 246 | 33 |
| Class VI.—Other Offences | 1,701 | 166 | 1,352 | 140 |
| Carrying unlawful weapons..... | 118 | 1 | 83 | 1 |
| Dangerous or reckless driving..... | 263 | 3 | 85 | — |
| Driving car while ability impaired..... | 446 | 2 | 476 | 3 |
| Driving car while drunk..... | 144 | — | 99 | — |
| Offences against public morals..... | 20 | 31 | 37 | 33 |
| Opium and Narcotic Drug Act, offences against..... | 32 | 17 | 35 | 30 |
| Gambling and lotteries..... | 10 | 3 | 18 | — |
| Keeping bawdy houses and inmates..... | 5 | 66 | 10 | 40 |
| Riots and unlawful assembly..... | 177 | — | 37 | — |
| Various..... | 486 | 43 | 472 | 33 |
| Grand Totals | 11,530 | 677 | 10,809 | 627 |

¹ Includes abortion, assault against females, assault against wife, indecent assault, carnal knowledge, incest, procuration, rape, attempted rape, seduction and wife desertion.

Table 13 shows the proportions of young offenders per 100,000 population in three age groups.

13.—Numbers per 100,000 Population of Young Adults Convicted of Indictable Offences by Age Group 1954 and 1955

| Age Group | 1954 | | | 1955 | | |
|--------------------|-----------|--|----------------------------|-----------|--|----------------------------|
| | Offenders | Per 100,000 Population in Respective Group | Change from Preceding Year | Offenders | Per 100,000 Population in Respective Group | Change from Preceding Year |
| | No. | | p.c. | No. | | p.c. |
| 16 - 17 years..... | 2,769 | 622 | +3.1 | 2,743 | 602 | -0.9 |
| 18 - 19 "..... | 2,778 | 637 | +5.7 | 2,814 | 636 | +1.3 |
| 20 - 24 "..... | 6,660 | 598 | +2.2 | 5,879 | 524 | -11.7 |



The sentences meted out to these young people vary somewhat from those given to offenders over 24 years of age. Usually a higher proportion of them are given suspended sentences, put on probation or sent to reformatories and a lower proportion fined or given gaol sentences.

14.—Disposition of Sentences for Indictable Offences by Sex 1954 and 1955

| Disposition of Sentences | 1954 | | | | 1955 | | | |
|--------------------------|-------------|-----|------------------|-----|-------------|-----|------------------|-----|
| | 16-24 Years | | 25 Years or Over | | 16-24 Years | | 25 Years or Over | |
| | M. | F. | M. | F. | M. | F. | M. | F. |
| | No. | No. | No. | No. | No. | No. | No. | No. |
| Suspended sentence..... | 1,389 | 143 | 1,435 | 210 | 1,521 | 136 | 1,428 | 186 |
| Probation..... | 1,408 | 143 | 731 | 144 | 1,529 | 169 | 649 | 120 |
| Fine..... | 2,865 | 140 | 7,118 | 448 | 2,530 | 99 | 6,285 | 398 |
| Gaol..... | 4,065 | 176 | 6,297 | 276 | 3,406 | 157 | 5,563 | 308 |
| Reformatory..... | 890 | 66 | 495 | 33 | 1,032 | 58 | 568 | 31 |
| Penitentiary..... | 909 | 9 | 1,418 | 25 | 783 | 8 | 1,259 | 34 |
| Death..... | 4 | — | 11 | — | 8 | — | 7 | 1 |

Through the system of suspended sentence and probation supervising, many young offenders receive another chance to make good and reformatory training gives others an opportunity to better their employment possibilities. It is interesting to note that 29.8 p.c. of the young male offenders in 1955 were recorded as labourers, indicating that they had no particular skill by which to earn a living; the proportion of male offenders 25 years or

over recorded as labourers was 22.4 p.c. Those recorded as students made up 5.9 p.c. of the youths and 8.0 p.c. were reported as unemployed as compared with 3.0 p.c. of the older men. Approximately two of every three lived in urban centres.

Subsection 3.—Convictions for Summary Conviction Offences

Offences punishable on summary conviction—those not expressly made indictable—include all offences against provincial statutes and municipal by-laws. Summary conviction offences are triable by magistrate or justice of the peace under Part XXIV of the Criminal Code or under the provincial summary convictions Acts.

It is debatable how far summary conviction offences are of a criminal nature and whether their increase indicates an increase in crime. Many are breaches of municipal by-laws and contrary to public safety, health and comfort as, for example, parking violations or practising trades without licence, but they do not involve violence, cruelty or serious dishonesty. On the other hand, offences as serious as cruelty to animals and contributing to juvenile delinquency are included under this classification and such indictable offences as common assault and driving with ability impaired may be tried on summary conviction.

Summary convictions increased by 8.6 p.c. to 2,147,776 in 1955 from 1,977,567 in 1954. Increases were general in all provinces except Manitoba.

15.—Convictions for Summary Conviction Offences by Province 1946-55

NOTE.—Figures for years before 1951 are for the 12 months ended Sept. 30, 1951; those for 1952-55 are for the calendar year. Statistics for the intervening months, October-December 1950, are given in DBS report, *Statistics of Criminal and Other Offences*. Figures for 1900-45 are given in the corresponding table of previous Year Books beginning with the 1933 edition.

| Year | Nfld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Yukon | N.W.T. | Canada |
|-----------|-------|--------|--------|--------|---------|-----------|---------|--------|--------|---------|-------|--------|-----------|
| | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| 1946..... | ... | 2,715 | 12,915 | 13,925 | 176,996 | 354,154 | 36,014 | 13,985 | 16,289 | 32,203 | 234 | 242 | 659,672 |
| 1947..... | ... | 2,806 | 12,019 | 14,097 | 188,835 | 407,334 | 47,170 | 15,263 | 18,696 | 45,585 | 328 | 325 | 752,458 |
| 1948..... | ... | 2,696 | 13,699 | 12,189 | 228,502 | 445,911 | 52,783 | 15,488 | 19,748 | 85,006 | 385 | 238 | 876,645 |
| 1949..... | .. | 3,118 | 12,617 | 13,131 | 232,132 | 510,837 | 72,023 | 16,465 | 25,551 | 94,326 | 232 | 57 | 980,489 |
| 1950..... | .. | 2,095 | 13,137 | 21,732 | 280,868 | 617,565 | 79,079 | 22,717 | 28,344 | 117,729 | 553 | 172 | 1,183,991 |
| 1951..... | 5,022 | 2,195 | 14,850 | 25,660 | 267,648 | 671,893 | 118,217 | 22,467 | 39,956 | 139,304 | 950 | 304 | 1,308,466 |
| 1952..... | 6,191 | 2,578 | 14,977 | 31,905 | 312,892 | 819,253 | 135,034 | 31,618 | 50,443 | 158,967 | 1,342 | 507 | 1,565,707 |
| 1953..... | 6,315 | 2,529 | 17,292 | 33,308 | 352,009 | 960,764 | 135,757 | 34,764 | 57,463 | 161,382 | 1,432 | 607 | 1,763,622 |
| 1954..... | 7,027 | 2,958 | 18,096 | 35,003 | 441,875 | 1,066,039 | 141,290 | 46,343 | 56,408 | 160,707 | 1,339 | 482 | 1,977,567 |
| 1955..... | 8,585 | 3,534 | 19,459 | 38,560 | 444,143 | 1,224,654 | 110,632 | 46,817 | 58,757 | 192,589 | .. | 46 | 2,147,776 |

In considering statistics of summary convictions it should be remembered that such convictions are greatly influenced by the customs of the people and by the application and degree of enforcement of municipal regulations. These differ from place to place and from year to year and affect summary conviction offences more than they do indictable offences.

In 1955 increases appeared in convictions for breaches of municipal by-laws, the Lord's Day Act, the Indian Act and traffic regulations, and for frequenting bawdy houses, common assault, contributing to delinquency and non-support and neglect of children. Decreases were shown for offences against the Railway Act and the Liquor Control Act and for vagrancy, damage to property, disturbing the peace and gambling.

16.—Convictions for Summary Conviction Offences by Type 1951-55

NOTE.—See headnote to Table 15, p. 320.

| Type of Offence | 1951 | 1952 | 1953 | 1954 | 1955 | Increase or Decrease 1954-55 |
|---|------------------|------------------|------------------|------------------|------------------|------------------------------------|
| | No. | No. | No. | No. | No. | p.c. |
| Assault (common)..... | 4,046 | 4,546 | 4,645 | 4,414 | 5,048 | +14.4 |
| Disturbing the peace..... | 12,210 | 12,760 | 13,203 | 13,512 | 12,222 | - 9.6 |
| Drunkennes..... | 83,898 | 85,682 | 91,182 | 94,923 | 93,177 | - 1.8 |
| Vagrancy..... | 6,893 | 6,956 | 8,377 | 8,646 | 7,146 | -17.4 |
| Damage to property..... | 1,678 | 2,143 | 2,406 | 2,467 | 2,674 | -16.1 |
| Gambling..... | 3,613 | 2,656 | 2,759 | 2,552 | 2,398 | - 6.0 |
| Bawdy houses (frequenting)..... | 273 | 434 | 390 | 468 | 606 | +29.5 |
| Non-support and neglecting children..... | 4,609 | 5,178 | 5,764 | 5,934 | 6,116 | + 3.1 |
| Contributing to delinquency..... | 932 | 1,349 | 1,720 | 1,341 | 1,525 | +13.7 |
| Traffic regulations..... | 1,065,426 | 1,311,022 | 1,505,931 | 1,685,811 | 1,837,814 | + 9.0 |
| Provincial and Federal Acts— | | | | | | |
| Game and Fishing Acts..... | 5,996 | 5,839 | 6,397 | 6,554 | 6,535 | - 0.3 |
| Indian Act..... | 2,213 | 2,549 | 3,117 | 2,447 | 3,287 | +34.3 |
| Liquor Control and Temperance Acts..... | 28,405 | 33,335 | 34,972 | 36,741 | 36,391 | - 1.0 |
| Lord's Day Act..... | 749 | 666 | 625 | 567 | 641 | +13.1 |
| Radio without a licence..... | 12,418 | 11,273 | *** | *** | *** | *** |
| Railway Acts..... | 1,266 | 1,427 | 2,093 | 2,145 | 1,451 | -32.4 |
| Revenue Laws ¹ | 5,292 | 6,259 | 6,629 | 9,030 | 9,005 | - 0.3 |
| Other provincial and federal Acts..... | 18,980 | 17,989 | 24,082 | 24,756 | 25,673 | + 3.7 |
| Municipal by-laws, breaches of..... | 40,621 | 44,258 | 39,415 | 64,024 | 87,766 | +37.1 |
| Exercising various callings without licence..... | 2,349 | 2,433 | 2,249 | 2,341 | 2,169 | - 7.4 |
| Other offences..... | 6,599 | 6,953 | 7,666 | 8,894 | 6,132 | -31.1 |
| Totals, Convictions..... | 1,308,466 | 1,565,707 | 1,763,622 | 1,977,567 | 2,147,776 | + 8.6 |

¹ Includes Excise and Income Tax Acts.

17.—Convictions for Breaches of Traffic Regulations by Province 1946-55

NOTE.—See headnote to Table 15, p. 320.

| Year | Nfld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Yukon and N.W.T. | Canada |
|-----------|-------|--------|-------|--------|---------|-----------|---------|--------|--------|---------|------------------------|-----------|
| | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| 1946..... | ... | 327 | 1,707 | 2,014 | 123,915 | 271,379 | 26,266 | 5,253 | 5,574 | 17,193 | 2 | 453,630 |
| 1947..... | ... | 556 | 2,370 | 2,667 | 138,321 | 315,412 | 36,526 | 6,141 | 7,476 | 28,043 | 7 | 537,519 |
| 1948..... | ... | 393 | 4,607 | 2,469 | 174,021 | 352,253 | 41,074 | 6,300 | 7,984 | 60,493 | 6 | 649,599 |
| 1949..... | ... | 519 | 4,084 | 3,729 | 188,003 | 417,016 | 60,127 | 7,274 | 11,112 | 69,545 | 58 | 761,467 |
| 1950..... | ... | 366 | 4,265 | 11,909 | 227,857 | 508,010 | 67,832 | 12,362 | 13,772 | 92,038 | 138 | 938,549 |
| 1951..... | 1,773 | 580 | 5,802 | 15,641 | 215,222 | 570,895 | 106,262 | 13,325 | 22,923 | 112,738 | 265 | 1,065,426 |
| 1952..... | 2,565 | 765 | 5,109 | 20,358 | 266,835 | 714,810 | 122,647 | 19,749 | 25,693 | 132,123 | 368 | 1,311,022 |
| 1953..... | 2,719 | 760 | 6,014 | 21,296 | 309,064 | 857,117 | 122,370 | 21,957 | 30,846 | 133,295 | 493 | 1,505,931 |
| 1954..... | 3,048 | 1,214 | 7,040 | 21,804 | 390,701 | 954,749 | 125,346 | 32,666 | 28,690 | 120,281 | 272 | 1,685,811 |
| 1955..... | 3,977 | 1,637 | 7,982 | 28,080 | 390,502 | 1,102,183 | 92,514 | 32,667 | 29,463 | 148,809 | .. | 1,837,814 |

For the year 1955, Ontario, with 41.0 p.c. of the registrations of motor vehicles in Canada, had 60.0 p.c. of the total convictions for breaches of traffic regulations; Quebec in the same year had 18.8 p.c. of the registered vehicles and 21.2 p.c. of the convictions. In interpreting the figures in this way, however, it should be pointed out that traffic regulations are by no means uniform throughout Canada and no account is taken of the differences in the degrees of urbanization in the provinces. These two provinces have large urban centres but in provinces with lower degrees of urbanization, such as the Atlantic Provinces, Saskatchewan and Alberta, convictions are lower when considered in proportion to the number of motor vehicles registered.

Convictions for Drunkenness and Offences against the Liquor Acts.—In considering these convictions it should be noted that the same person may and often does appear before the courts on such charges more than once within a year and that the number of convictions may thus be well above the number of persons convicted.

18.—Convictions for Drunkenness by Province 1946-55

NOTE.—See headnote to Table 15, p. 320.

| Year | Nfld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Yukon | N.W.T. | Canada |
|-----------|-------|--------|-------|-------|--------|--------|-------|-------|-------|--------|-------|--------|--------|
| | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| 1946..... | ... | 1,478 | 4,754 | 7,754 | 7,167 | 29,698 | 2,685 | 1,847 | 2,596 | 5,974 | 85 | 38 | 64,076 |
| 1947..... | ... | 1,187 | 4,907 | 6,584 | 11,006 | 31,218 | 2,510 | 1,802 | 2,632 | 8,801 | 184 | 37 | 70,868 |
| 1948..... | ... | 969 | 4,151 | 4,900 | 11,015 | 33,446 | 2,829 | 1,392 | 2,580 | 9,135 | 101 | 24 | 70,542 |
| 1949..... | ... | 1,089 | 4,363 | 5,125 | 10,419 | 33,797 | 3,613 | 1,497 | 4,656 | 11,237 | 126 | 9 | 75,931 |
| 1950..... | .. | 907 | 3,931 | 4,980 | 10,942 | 35,356 | 2,984 | 1,503 | 3,849 | 11,180 | 240 | 63 | 75,935 |
| 1951..... | 844 | 759 | 4,432 | 6,036 | 10,222 | 38,577 | 3,098 | 1,915 | 4,691 | 13,007 | 213 | 104 | 83,898 |
| 1952..... | 786 | 1,049 | 5,457 | 6,550 | 10,702 | 36,344 | 3,272 | 2,264 | 5,141 | 13,479 | 462 | 176 | 85,682 |
| 1953..... | 1,045 | 1,007 | 6,378 | 6,712 | 9,103 | 38,108 | 3,729 | 2,728 | 7,753 | 13,987 | 403 | 229 | 91,182 |
| 1954..... | 866 | 966 | 5,941 | 6,957 | 10,663 | 38,461 | 3,892 | 2,670 | 7,039 | 16,637 | 637 | 194 | 94,923 |
| 1955..... | 1,015 | 1,033 | 6,527 | 6,067 | 9,786 | 39,465 | 3,616 | 3,147 | 6,275 | 16,214 | ... | 32 | 93,177 |

There is general interest in the relation of alcoholism to crime but, when examining statistics to support the assumption that some crimes are associated with the consumption of liquor, it should be observed that accurate interpretation would necessitate allowance for population variables such as age and sex distribution and other classifications according to social and economic status, etc.

19.—Convictions for Offences against the Liquor Acts by Province 1946-55

NOTE.—See headnote to Table 15, p. 320.

| Year | Nfld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Yukon | N.W.T. | Canada |
|-----------|-------|--------|-------|-------|-------|--------|-------|-------|-------|-------|-------|--------|--------|
| | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| 1946..... | ... | 374 | 3,436 | 1,411 | 2,274 | 15,779 | 2,059 | 2,697 | 2,514 | 2,615 | 57 | 146 | 33,362 |
| 1947..... | ... | 354 | 2,503 | 1,742 | 1,494 | 12,889 | 2,229 | 2,712 | 2,623 | 1,741 | 46 | 153 | 28,486 |
| 1948..... | ... | 329 | 2,274 | 1,274 | 1,519 | 13,891 | 1,921 | 2,311 | 2,670 | 1,443 | 39 | 73 | 27,744 |
| 1949..... | ... | 439 | 2,053 | 1,278 | 1,969 | 14,339 | 1,574 | 2,418 | 3,081 | 1,098 | — | 10 | 28,259 |
| 1950..... | .. | 268 | 2,192 | 1,172 | 3,121 | 15,761 | 1,980 | 2,478 | 3,504 | 1,164 | 64 | 34 | 31,738 |
| 1951..... | 371 | 266 | 2,273 | 818 | 1,467 | 14,104 | 1,961 | 2,005 | 3,757 | 1,251 | 88 | 44 | 28,405 |
| 1952..... | 475 | 284 | 2,236 | 1,172 | 777 | 15,050 | 2,314 | 2,527 | 6,782 | 1,381 | 243 | 94 | 33,335 |
| 1953..... | 441 | 280 | 2,124 | 1,221 | 1,304 | 17,137 | 2,013 | 3,146 | 5,445 | 1,508 | 285 | 68 | 34,972 |
| 1954..... | 411 | 368 | 2,285 | 979 | 1,203 | 18,351 | 2,501 | 3,484 | 5,313 | 1,557 | 251 | 38 | 36,741 |
| 1955..... | 571 | 464 | 2,056 | 1,014 | 1,322 | 18,256 | 2,102 | 3,480 | 5,579 | 1,545 | .. | 2 | 36,391 |

Convictions of Females.—The number of convictions against females for summary conviction offences was higher in 1955 than in 1954 by 12.2 p.c., an increase more than accounted for by a 22.0 p.c. advance in Ontario. New Brunswick, British Columbia, Nova Scotia, Quebec and Alberta recorded percentage decreases of 25.1, 19.6, 6.6, 4.8 and 1.5 respectively. Traffic offences were the cause of 82.1 p.c. of all summary convictions against women, in 1955 such convictions increased by 14.6 p.c. as compared with 1954.

20.—Convictions of Females for Summary Conviction Offences by Province 1951-55

NOTE.—See headnote to Table 15, p. 320.

| Province or Territory | Numbers of Convictions | | | | | Percentages of Convictions of Females to Total Convictions | | | | |
|--------------------------|------------------------|----------------|---------------|---------------|----------------|--|------------|------------|------------|------------|
| | 1951 | 1952 | 1953 | 1954 | 1955 | 1951 | 1952 | 1953 | 1954 | 1955 |
| Newfoundland..... | 206 | 309 | 328 | 241 | 550 | 4.1 | 5.0 | 5.2 | 3.4 | 6.4 |
| Prince Edward Island.... | 40 | 57 | 47 | 46 | 46 | 1.8 | 2.2 | 1.9 | 1.6 | 1.3 |
| Nova Scotia..... | 471 | 685 | 602 | 469 | 438 | 3.2 | 4.6 | 3.5 | 2.6 | 2.3 |
| New Brunswick..... | 501 | 611 | 455 | 586 | 439 | 2.0 | 1.9 | 1.4 | 1.7 | 1.2 |
| Quebec..... | 9,056 | 7,156 | 9,168 | 9,024 | 8,590 | 3.4 | 2.3 | 2.6 | 2.0 | 1.9 |
| Ontario..... | 57,135 | 69,057 | 53,987 | 63,384 | 77,321 | 8.5 | 8.4 | 5.6 | 5.9 | 6.3 |
| Manitoba..... | 1,745 | 6,244 | 3,838 | 4,309 | 4,853 | 1.5 | 4.6 | 2.8 | 3.0 | 4.4 |
| Saskatchewan..... | 592 | 570 | 617 | 641 | 847 | 2.6 | 1.8 | 1.8 | 1.4 | 1.8 |
| Alberta..... | 1,208 | 1,568 | 1,812 | 1,628 | 1,604 | 3.0 | 3.1 | 3.2 | 2.9 | 2.7 |
| British Columbia..... | 13,596 | 15,109 | 13,714 | 13,864 | 11,149 | 9.8 | 9.5 | 8.5 | 8.6 | 5.8 |
| Yukon and N.W.T..... | 51 | 136 | 148 | 186 | 9 | 4.1 | 7.4 | 7.3 | 10.2 | 19.6 |
| Canada..... | 84,601 | 101,502 | 84,716 | 94,378 | 105,846 | 6.5 | 6.5 | 4.8 | 4.8 | 4.9 |

Subsection 4.—Appeals

The disposition of appeals dealt with by the Supreme Court of Canada and the provincial supreme courts in criminal cases is shown by province for 1954 and 1955 in Table 21; the disposition of those dealt with by county and district courts against summary convictions is given in Table 22.

21.—Appeals in Indictable Cases by Province 1954 and 1955

| Year and Province or Court | Appeals Disposed of by Courts | Crown Appeal | | | | | Appeal of Accused | | | | | |
|------------------------------|-------------------------------|----------------|------------|-------------|---------------|------------|-------------------|------------|------------|-----------------------|---------------|------------|
| | | From Acquittal | | | From Sentence | | From Conviction | | | | From Sentence | |
| | | Dis-missed | New Trial | Con-viction | Dis-missed | Varied | Dis-missed | Ac-quitted | New Trial | Substi-tuted Ver-dict | Dis-missed | Varied |
| 1954 | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| Newfoundland..... | — | — | — | — | — | — | — | — | — | — | — | — |
| P. E. Island..... | 4 | — | — | — | 4 | — | — | — | — | — | — | — |
| Nova Scotia..... | 7 | — | — | — | — | — | 4 | 1 | 1 | 1 | — | — |
| New Brunswick..... | 6 | — | — | — | — | — | 3 | 1 | 1 | 1 | — | — |
| Quebec..... | 67 | 4 | — | — | — | 1 | 30 | 18 | 1 | — | 10 | 3 |
| Ontario..... | 339 | — | — | 1 | 5 | — | 158 | 29 | 14 | 6 | 91 | 35 |
| Manitoba..... | 70 | 6 | — | — | 1 | — | 35 | 7 | — | — | 17 | 4 |
| Saskatchewan..... | 27 | 1 | — | — | 1 | — | 5 | 1 | — | 1 | 3 | 15 |
| Alberta..... | 208 | 4 | — | 1 | 3 | — | 48 | 5 | 8 | — | 66 | 73 |
| British Columbia..... | 240 | 9 | — | 1 | 2 | 9 | 73 | 20 | 16 | 1 | 58 | 51 |
| Supreme Court of Canada..... | 8 | 2 | — | 1 | — | — | 3 | 1 | 1 | — | — | — |
| Totals, 1954..... | 976 | 26 | — | 4 | 16 | 10 | 359 | 83 | 42 | 10 | 245 | 181 |
| 1955 | | | | | | | | | | | | |
| Newfoundland..... | 3 | — | — | — | — | — | — | — | — | — | 1 | 2 |
| P. E. Island..... | — | — | — | — | — | — | — | — | — | — | — | — |
| Nova Scotia..... | 13 | — | — | — | — | — | 6 | 1 | 1 | 1 | 3 | 1 |
| New Brunswick..... | 19 | — | — | 1 | — | 6 | 1 | 1 | 1 | — | 3 | 6 |
| Quebec..... | 75 | 3 | 1 | — | — | — | 35 | 22 | 3 | — | 1 | 10 |
| Ontario..... | 344 | 2 | — | — | — | 1 | 129 | 57 | 15 | — | 111 | 29 |
| Manitoba..... | 193 | — | — | — | — | 2 | 19 | — | 2 | 4 | 148 | 18 |
| Saskatchewan..... | 58 | 1 | — | — | 2 | 1 | 8 | 4 | 2 | — | 31 | 9 |
| Alberta..... | 211 | 3 | 2 | 4 | 1 | 2 | 36 | 14 | 13 | 3 | 82 | 51 |
| British Columbia..... | 277 | 8 | — | 1 | 2 | 5 | 94 | 12 | 14 | — | 102 | 39 |
| Supreme Court of Canada..... | 14 | — | — | 5 | — | — | 4 | 3 | 2 | — | — | — |
| Totals, 1955..... | 1,207 | 17 | 3 | 11 | 5 | 17 | 332 | 114 | 53 | 8 | 482 | 165 |

22.—Appeals in Summary Conviction Cases by Province 1954 and 1955

| Year and Province or Court | Appeals Disposed of by Courts | Appeal of Informant | | | | Appeal of Accused | | | | |
|----------------------------|-------------------------------|---------------------|-------------|---------------|----------|-------------------|------------|----------------------|---------------|-----------|
| | | From Acquittal | | From Sentence | | From Conviction | | | From Sentence | |
| | | Dis-missed | Con-viction | Dis-missed | Varied | Dis-missed | Ac-quitted | Substi-tuted Verdict | Dis-missed | Varied |
| 1954 | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| Newfoundland..... | 2 | — | — | — | — | 2 | — | — | — | — |
| P. E. Island..... | 14 | — | — | — | — | 9 | 5 | — | — | — |
| Nova Scotia..... | 65 | 11 | 8 | 1 | 2 | 21 | 17 | 5 | — | — |
| New Brunswick..... | 27 | — | 3 | — | — | 16 | 3 | 3 | — | 2 |
| Quebec..... | 68 | 15 | 1 | — | 1 | 36 | 5 | 8 | 1 | 1 |
| Ontario..... | 333 | 9 | 24 | 1 | 1 | 141 | 92 | 27 | 24 | 14 |
| Manitoba..... | 9 | — | — | — | — | 7 | 2 | — | — | — |
| Saskatchewan..... | 32 | 1 | 1 | 1 | — | 15 | 5 | 8 | — | 1 |
| Alberta..... | 143 | 4 | 2 | — | 1 | 62 | 58 | 1 | 3 | 12 |
| British Columbia..... | 122 | 4 | 4 | 3 | 3 | 60 | 35 | 5 | 5 | 3 |
| Totals, 1954..... | 815 | 44 | 43 | 6 | 8 | 369 | 222 | 57 | 33 | 33 |
| 1955 | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| Newfoundland..... | 3 | — | — | — | — | — | — | — | 2 | 1 |
| P. E. Island..... | — | — | — | — | — | — | — | — | — | — |
| Nova Scotia..... | 119 | 3 | 64 | — | — | 26 | 17 | 6 | 2 | 1 |
| New Brunswick..... | 14 | 2 | — | — | — | 4 | 3 | 2 | 2 | 1 |
| Quebec..... | 57 | 2 | 1 | — | 1 | 32 | 17 | — | 3 | 1 |
| Ontario..... | 329 | 7 | 13 | 3 | 4 | 153 | 94 | 30 | 13 | 12 |
| Manitoba..... | 18 | — | 6 | — | — | 10 | 2 | — | — | — |
| Saskatchewan..... | 38 | 2 | 1 | 1 | 1 | 13 | 12 | 2 | 2 | 4 |
| Alberta..... | 234 | 6 | 6 | 4 | 1 | 85 | 50 | 2 | 60 | 20 |
| British Columbia..... | 156 | 9 | 7 | 1 | 1 | 76 | 53 | 6 | 1 | 2 |
| Totals, 1955..... | 968 | 31 | 98 | 9 | 8 | 399 | 248 | 48 | 85 | 42 |

Section 3.—Juvenile Delinquents

The Juvenile Delinquents Act defines a child as "any boy or girl apparently or actually under the age of 16 years". Provision is made, however, by which the Governor General in Council may proclaim that in a province the definition of a child be a "person under the age of 18 years". This has been done in British Columbia, Manitoba and Quebec. Newfoundland considers a juvenile to be a girl or a boy of under 17 years of age. For uniformity the figures relating to juveniles compiled by the Dominion Bureau of Statistics refer to the younger ages of under 16 years only and deal primarily with cases disposed of by the courts.

The fact that juvenile court statistics furnish the most comprehensive figures collected on a countrywide basis makes it important that their possibilities and limitations be understood. This Section gives an account of juvenile delinquency in Canada from the viewpoint of legal action taken, for in the eyes of the law a *child is a delinquent only when he or she is adjudged before the court to have committed a delinquency*. To many people the term 'juvenile delinquent' has a broader interpretation but that adopted in this Section does not include those boys and girls whose misdemeanours have not been reported to the courts nor those given the necessary advice and aid from their parents, their school, the police or a child care agency. Moreover it does not include those cases that are handled unofficially by the court, where the judge or probation officer makes an adjustment without filing a legal record of the offence. The tendency to follow this practice and thus keep children's names from court records is growing and may account to some extent for the decreasing number of recorded court cases.

These statistics represent cases of delinquency reported to the courts, from the most trivial infractions to the most serious, that of murder. The number of cases brought before the courts is influenced by such factors as personnel and facilities of the court, community

interest in and understanding of the function of a juvenile court, and by variations in the policies of the courts in the disposition of cases. As more courts are established the additional returns may exaggerate an apparent increase in delinquency or may underestimate a decrease. In some communities the juvenile court is the only available agency to provide services to children; in others there are well established agencies serving children of which the juvenile court is only one.

It should be noted, too, that the total figures do not represent the actual number of children charged and found guilty but rather tend to exaggerate them, for a child referred to the court two or more times during the year for different offences is counted as a different case each time. Neither do the figures represent the number of offences committed by offenders, as when a child is charged with more than one delinquency at a hearing only the most serious offence is counted.

Reports of juvenile delinquents were received in 1955 from 157 of the 169 judicial districts. Twelve of these had no cases to report. Separate reports were received in 1955 from 159 incorporated urban centres of 4,000 population or more.

Juveniles Before the Courts.—The number of cases of juveniles brought before the courts in 1955 was 8,187, an increase of 5.6 p.c. over 1954. Newfoundland and Alberta showed the greatest percentage increases among the provinces.

23.—Juveniles brought before the Courts by Province 1951-55

| Province or Territory | 1951 | 1952 | 1953 | 1954 | 1955 | Percentage Change, 1954-55 |
|----------------------------|--------------|--------------|--------------|--------------|--------------|----------------------------|
| | No. | No. | No. | No. | No. | |
| Newfoundland..... | 194 | 223 | 207 | 229 | 269 | +17.5 |
| Prince Edward Island..... | 55 | 29 | 37 | 43 | 31 | -27.9 |
| Nova Scotia..... | 554 | 425 | 594 | 650 | 576 | -11.4 |
| New Brunswick..... | 275 | 274 | 247 | 235 | 210 | -10.6 |
| Quebec..... | 1,348 | 965 | 1,306 | 1,229 | 1,323 | + 7.6 |
| Ontario..... | 3,441 | 3,370 | 3,531 | 3,381 | 3,605 | + 6.6 |
| Manitoba..... | 404 | 454 | 405 | 422 | 455 | + 7.8 |
| Saskatchewan..... | 71 | 84 | 54 | 62 | 58 | - 6.5 |
| Alberta..... | 285 | 368 | 421 | 463 | 602 | +30.0 |
| British Columbia..... | 893 | 1,021 | 1,023 | 1,037 | 1,058 | + 2.0 |
| Yukon Territory..... | 1 | — | 4 | — | — | — |
| Northwest Territories..... | — | — | — | — | — | — |
| Canada..... | 7,521 | 7,213 | 7,829 | 7,751 | 8,187 | + 5.6 |

24.—Percentage Change in the Number of Boys and Girls brought before the Courts 1946-55

| Year | Percentage Change from Preceding Year | | | Percentage Change from 1945 | | |
|-------------------------|---------------------------------------|--------------|-----------|-----------------------------|--------------|-----------|
| | Boys' Cases | Girls' Cases | All Cases | Boys' Cases | Girls' Cases | All Cases |
| 1946..... | -11.4 | - 5.8 | -10.8 | -11.4 | - 5.8 | -10.8 |
| 1947..... | - 3.3 | -17.3 | - 5.1 | -14.4 | -22.0 | -15.3 |
| 1948..... | - 5.1 | - 1.3 | - 4.7 | -18.7 | -23.1 | -19.3 |
| 1949..... | - 9.0 | -24.0 | -10.7 | -26.0 | -41.6 | -27.9 |
| 1950..... | + 2.9 | +11.8 | + 3.8 | -23.8 | -34.7 | -25.1 |
| 1951 ¹ | + 3.9 | - 5.3 | + 3.0 | -20.9 | -38.1 | -22.9 |
| 1952..... | - 5.0 | + 4.5 | - 4.1 | -24.8 | -35.4 | -26.1 |
| 1953..... | + 8.3 | +11.0 | + 8.5 | -18.6 | -28.3 | -19.8 |
| 1954..... | - 0.6 | - 4.2 | - 1.0 | -19.1 | -31.3 | -20.6 |
| 1955..... | + 3.3 | +25.9 | + 5.6 | -16.4 | -13.5 | -16.1 |

¹ Newfoundland included from 1951.

Children Adjudged Delinquent.—Over a period of ten years it has been found that between 80 and 90 p.c. of the children brought before the courts each year have been adjudged delinquent. The number of delinquents in 1955 was 7,025, an increase of 10.9 p.c. over 1954. The major increases in 1955 were shown in Quebec and Alberta.

25.—Juvenile Delinquents by Province 1946-55

| Year | Nfld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Yukon and N.W.T. | Canada |
|-----------|-------|--------|------|------|-------|-------|------|-------|-------|-------|------------------|--------|
| | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| 1946..... | ... | 55 | 384 | 382 | 2,155 | 3,104 | 298 | 195 | 405 | 878 | — | 7,856 |
| 1947..... | ... | 30 | 412 | 334 | 1,842 | 2,830 | 424 | 212 | 277 | 1,167 | 17 | 7,545 |
| 1948..... | ... | 28 | 421 | 263 | 1,864 | 2,799 | 364 | 169 | 237 | 999 | 11 | 7,155 |
| 1949..... | .. | 49 | 433 | 198 | 1,323 | 2,541 | 403 | 171 | 246 | 833 | 1 | 6,198 |
| 1950..... | .. | 10 | 351 | 258 | 1,369 | 3,056 | 400 | 76 | 204 | 689 | 6 | 6,418 |
| 1951..... | 175 | 52 | 483 | 261 | 1,180 | 3,024 | 347 | 64 | 242 | 815 | 1 | 6,644 |
| 1952..... | 215 | 29 | 356 | 267 | 628 | 2,889 | 409 | 81 | 317 | 877 | — | 6,068 |
| 1953..... | 196 | 33 | 443 | 235 | 773 | 2,975 | 360 | 49 | 357 | 952 | 4 | 6,377 |
| 1954..... | 218 | 43 | 440 | 224 | 678 | 2,945 | 341 | 59 | 428 | 956 | — | 6,332 |
| 1955..... | 254 | 30 | 390 | 202 | 1,040 | 3,138 | 401 | 57 | 535 | 978 | — | 7,025 |

Offences.—Thieving is the most prevalent delinquency among boys and, together with receiving stolen goods, was the reason for court appearance in 40.4 p.c. of all cases in 1955. Burglaries, robberies, house- and shop-breaking were committed by 24.5 p.c. of the delinquent boys and another 9.7 p.c. committed wilful acts against property. Only 2.7 p.c. of the boys were guilty of offences against the person and 36.7 p.c. of these were charged with common assault.

Incorrigibility (25.4 p.c.) and thefts (19.9 p.c.) were the complaints against 45.3 p.c. of the delinquent girls in 1955.

26.—Juvenile Delinquents by Group of Offence and Ratio per 100,000 Population 7-16 Years of Age 1946-55

| Year | Offences against the Person | | Offences against Property with Violence | | Offences against Property without Violence | | Wilful Offences against Property | | Forgery and Offences against Currency | | Other Offences | | Total Convictions | |
|-------------------------|-----------------------------|---------------------|---|---------------------|--|---------------------|----------------------------------|---------------------|---------------------------------------|---------------------|----------------|---------------------|-------------------|---------------------|
| | No. | Ratio to Population | No. | Ratio to Population | No. | Ratio to Population | No. | Ratio to Population | No. | Ratio to Population | No. | Ratio to Population | No. | Ratio to Population |
| 1946..... | 173 | 9 | 1,353 | 71 | 2,594 | 137 | 887 | 47 | 23 | 1 | 2,826 | 149 | 7,856 | 414 |
| 1947..... | 189 | 10 | 1,389 | 72 | 2,449 | 127 | 677 | 35 | 23 | 1 | 2,818 | 147 | 7,545 | 392 |
| 1948..... | 204 | 10 | 1,229 | 64 | 2,400 | 124 | 729 | 38 | 15 | 1 | 2,578 | 134 | 7,155 | 371 |
| 1949..... | 176 | 9 | 1,346 | 67 | 2,244 | 113 | 600 | 30 | 15 | 1 | 1,817 | 91 | 6,198 | 311 |
| 1950..... | 151 | 7 | 1,337 | 65 | 2,394 | 116 | 667 | 32 | 16 | 1 | 1,853 | 90 | 6,418 | 311 |
| 1951 ¹ | 188 | 9 | 1,542 | 72 | 2,563 | 119 | 765 | 36 | 20 | 1 | 1,566 | 73 | 6,644 | 310 |
| 1952..... | 172 | 8 | 1,456 | 65 | 2,496 | 112 | 633 | 28 | 25 | 1 | 1,286 | 5 | 6,068 | 272 |
| 1953..... | 169 | 7 | 1,416 | 61 | 2,415 | 103 | 770 | 33 | 19 | 1 | 1,588 | 68 | 6,377 | 273 |
| 1954..... | 184 | 7 | 1,444 | 59 | 2,489 | 102 | 673 | 28 | 32 | 1 | 1,510 | 62 | 6,332 | 259 |
| 1955..... | 181 | 7 | 1,548 | 61 | 2,767 | 108 | 629 | 25 | 29 | 1 | 1,871 | 73 | 7,025 | 275 |

¹ Newfoundland included from 1951.

27.—Juvenile Delinquents classified by Offence 1951-55

| Offence | 1951 | 1952 | 1953 | 1954 | 1955 |
|--|--------------|--------------|--------------------|--------------|--------------|
| | No. | No. | No. | No. | No. |
| Manslaughter and murder..... | — | — | — | — | 2 |
| Rape and attempt, carnal knowledge and incest..... | 3 | 3 | 5 | — | 3 |
| Indecent assault..... | 31 | 19 | 28 | 32 | 39 |
| Aggravated assault and wounding..... | 31 | 27 | 16 | 24 | 12 |
| Common assault..... | 89 | 65 | 89 | 76 | 71 |
| Endangering life on railway..... | 9 | 25 | 11 | 10 | 3 |
| Other offences against the person..... | 25 | 33 | 20 | 42 | 51 |
| Burglary, breaking and entering..... | 1,520 | 1,411 | 1,391 | 1,421 | 1,522 |
| Robbery..... | 22 | 45 | 25 | 23 | 26 |
| Theft and receiving stolen goods..... | 2,553 | 2,379 | 2,290 ^c | 2,346 | 2,643 |
| Embezzlement, false pretences and fraud..... | 10 | 16 | 15 | 26 | 26 |
| Arson..... | 28 | 36 | 34 | 26 | 15 |
| Wilful damage to property..... | 646 | 597 | 736 | 647 | 614 |
| Forgery and offences against currency..... | 20 | 25 | 19 | 32 | 29 |
| Incorrigibility and vagrancy..... | 484 | 403 | 529 | 441 | 533 |
| Immorality..... | 111 | 110 | 139 | 137 | 223 |
| Various other offences..... | 1,062 | 874 | 1,030 ^c | 1,055 | 1,213 |
| Totals..... | 6,644 | 6,068 | 6,377 | 6,332 | 7,025 |

Sex and Age.—Juvenile delinquents are predominantly boys. The proportion for all offences in 1955 was approximately one girl to eight boys, a ratio which has remained much the same over a long period. Juveniles of 13 to 15 years of age comprised the majority of delinquents in 1955, 73.8 p.c. in the case of boys and 87.7 p.c. in the case of girls. However, 242 boys and 12 girls (3.6 p.c. of the children) were under 10 years of age.

28.—Percentages of Delinquent Boys and Girls by Age Group 1954 and 1955

| Age Group | 1954 | | | 1955 | | |
|--------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | Boys | Girls | Both Sexes | Boys | Girls | Both Sexes |
| | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. |
| 7 - 12 years..... | 26.9 | 11.2 | 25.3 | 25.5 | 11.5 | 23.8 |
| 13 - 15 years..... | 72.4 | 88.3 | 74.0 | 73.8 | 87.7 | 75.4 |
| Not given..... | 0.7 | 0.5 | 0.7 | 0.7 | 0.8 | 0.8 |
| Totals..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Education and Employment.—Many causes contribute to backwardness in school work. The retarding influence may be illness, over-crowding in the home, disturbed family situations or dull mentality. Presuming that six years is the usual age for entering Grade I, 46.8 p.c. of the boys and girls in 1955 were reported to be two or more years below the normal grade for their age and 4.0 p.c. of the boys and girls were a year or more above it.

Well over half of the boys had attained Grade VII and 44.2 p.c. of the girls Grade VIII at the time of delinquency. The majority of boys who had left school had reached Grades VI to VIII and the girls, Grades VII to IX. Some high school education had been achieved by 20.5 p.c. of the boys and girls.

29.—Age, Sex and School Grade of Delinquent Boys and Girls 1954 and 1955

(B=Boys; G=Girls)

| Age | School Grades | | | | | | | | | | | | | | | | Total Delinquents | |
|-------------------|---------------|-----|-----|-----|-----|-----|-------|-----|-------|-----|-----------|-----|-----------|-----|-----------|-----|-------------------|-----|
| | Elementary | | | | | | | | | | Secondary | | Auxiliary | | Not Given | | | |
| | I-IV | | V | | VI | | VII | | VIII | | | | | | | | | |
| | B | G | B | G | B | G | B | G | B | G | B | G | B | G | B | G | B | G |
| | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| 1954 | | | | | | | | | | | | | | | | | | |
| 7 years..... | 10 | — | — | — | — | — | — | — | — | — | — | — | — | — | 1 | — | 11 | — |
| 8 "..... | 50 | 3 | 2 | — | — | — | — | — | — | — | — | — | — | — | — | — | 52 | 3 |
| 9 "..... | 119 | 5 | 15 | — | 1 | — | — | — | — | — | — | — | 2 | — | — | — | 137 | 5 |
| 10 "..... | 162 | 8 | 74 | 3 | 15 | — | 2 | — | 2 | — | — | — | 2 | — | 5 | 2 | 262 | 13 |
| 11 "..... | 143 | 10 | 142 | 9 | 111 | 2 | 21 | 1 | 4 | — | — | — | 9 | — | 3 | 1 | 433 | 23 |
| 12 "..... | 108 | 5 | 137 | 7 | 197 | 8 | 126 | 6 | 29 | 1 | 4 | — | 18 | 1 | 14 | 1 | 633 | 29 |
| 13 "..... | 54 | 3 | 122 | 12 | 218 | 19 | 286 | 27 | 167 | 28 | 50 | 6 | 27 | 2 | 16 | 1 | 940 | 98 |
| 14 "..... | 48 | 7 | 91 | 9 | 196 | 14 | 313 | 40 | 380 | 41 | 287 | 53 | 39 | 7 | 36 | 10 | 1,390 | 181 |
| 15 "..... | 33 | 13 | 94 | 16 | 119 | 16 | 259 | 43 | 455 | 68 | 745 | 119 | 29 | 10 | 51 | 9 | 1,785 | 294 |
| Not given..... | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 40 | 3 | 40 | 3 |
| Totals, 1954..... | 727 | 54 | 677 | 56 | 857 | 59 | 1,007 | 117 | 1,037 | 138 | 1,086 | 178 | 126 | 20 | 166 | 27 | 5,683 | 649 |
| 1955 | | | | | | | | | | | | | | | | | | |
| 7 years..... | 19 | 1 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 19 | 1 |
| 8 "..... | 63 | 5 | — | — | 1 | — | — | — | — | — | — | — | — | — | — | — | 64 | 5 |
| 9 "..... | 144 | 4 | 11 | 1 | 1 | — | 1 | — | — | — | 2 | — | 1 | — | — | — | 159 | 6 |
| 10 "..... | 202 | 3 | 60 | 3 | 16 | — | 2 | — | — | — | — | — | 4 | — | 2 | — | 286 | 6 |
| 11 "..... | 139 | 7 | 134 | 3 | 99 | 4 | 17 | 2 | 2 | 1 | — | — | 8 | — | 1 | — | 400 | 17 |
| 12 "..... | 128 | 7 | 167 | 13 | 172 | 18 | 137 | 13 | 27 | 3 | 4 | — | 13 | 6 | 2 | 1 | 650 | 61 |
| 13 "..... | 77 | 14 | 129 | 16 | 232 | 23 | 259 | 41 | 197 | 22 | 48 | 7 | 19 | 6 | 10 | — | 971 | 129 |
| 14 "..... | 61 | 11 | 106 | 26 | 198 | 21 | 371 | 69 | 413 | 68 | 302 | 63 | 33 | 15 | 14 | 3 | 1,498 | 276 |
| 15 "..... | 60 | 9 | 89 | 17 | 200 | 23 | 337 | 64 | 468 | 71 | 875 | 136 | 46 | 6 | 18 | 5 | 2,093 | 331 |
| Not given..... | — | — | — | — | — | — | 1 | — | — | — | — | — | — | — | 45 | 7 | 46 | 7 |
| Totals, 1955..... | 893 | 61 | 696 | 79 | 919 | 90 | 1,124 | 189 | 1,107 | 165 | 1,231 | 206 | 124 | 33 | 92 | 16 | 6,186 | 839 |

In 1955, 9.8 p.c. of the delinquent boys and 17.5 p.c. of the delinquent girls were not attending school. At the time of leaving school their ages ranged from 10 to 15 years, the majority being between 14 and 15 years. Nearly 32 p.c. of the delinquent boys, having left school, were unemployed. The largest group of wage earners (86) were in occupations concerned with transportation, such as messengers, helpers on milk delivery routes, truck drivers' assistants, etc. More than half of the girls were idle after leaving school. Factory work, domestic and personal service were the main occupations of those who were employed.

Birthplaces of Juvenile Delinquents and their Parents.—Canada was the country of birth of 95.3 p.c. of the juvenile delinquents in 1955 (the place of birth was not recorded in 1.0 p.c. of the cases); 3.9 p.c. were born in the British Isles, Europe, the United States, and Latin American countries. Ontario was the province of residence of 49.5 p.c. of those born outside Canada.

Both parents of 75.2 p.c. of the delinquent children in 1955 were born in Canada and another 12.0 p.c. had one parent born in this country. To evaluate these figures comparison should be made of population ratio of children from 7-15 years of age whose parents were Canadian-born with those whose parents were born elsewhere.

Home Circumstances.—The type of home in which he lives and the amount and quality of supervision he receives are important factors in a child's behaviour. The statistics of the marital status of the parents and the place and type of residence of the child reflect home conditions and are worth recording as possible reasons for social or emotional maladjustment. The parents of 78.3 p.c. of the delinquent children were reported to be living together in 1955 but homes broken by separated parents, divorce or death was the background of 19.9 p.c. of the delinquent boys and girls. The mothers of 11.0 p.c. of the juvenile delinquents were employed other than in the home and the mothers of another 2.6 p.c. were dead. The fathers of 6.7 p.c. of the cases were deceased.

Of every five juveniles who appeared in court, four were urban residents; 92.3 p.c. were living in their own homes at the time they got into difficulties; 4.7 p.c. of them were in foster homes, either with a relative or some other person; and institutions were the homes of 1.7 p.c. of them.

Sources of Complaint.—The police were the complainants in the majority of juvenile cases, 85.6 p.c. of the boys having been charged by them. Probation officers and parents were responsible for 3.0 p.c. and 2.8 p.c., respectively, of those charged. School authorities referred 2.1 p.c. of the boys to the courts and social agencies another 1.0 p.c.

The proportion (55.9 p.c.) of girls charged by the police was considerably less than the proportion of boys so charged. Parents made more use of the courts for girls than for boys (17.4 p.c.). School authorities laid complaints in 6.3 p.c., probation officers in 9.3 p.c. and social agencies in 5.1 p.c. of the girls' cases.

Repeaters.—In 1955 approximately one in every four children brought before the courts failed to heed the first warning and made at least a second appearance. In that year 77.2 p.c. of the delinquent children appeared before the courts for the first time, 15.1 p.c. were second offenders, 4.6 p.c. third, and 3.1 p.c. were dealt with by the courts four or more times.

30.—First Offenders and Repeaters of Major Offences 1946-55

| Year | Total Delinquents | First Offenders | Repeaters | | | | | Percentage of Total Delinquents |
|-------------------------|-------------------|-----------------|-----------|-------|--------|---------------|-------|---------------------------------|
| | | | Second | Third | Fourth | Fifth or More | Total | |
| | No. | No. | No. | No. | No. | No. | No. | |
| 1946..... | 4,949 | 3,430 | 799 | 344 | 155 | 221 | 1,519 | 30.7 |
| 1947..... | 4,683 | 3,376 | 673 | 329 | 138 | 167 | 1,307 | 27.9 |
| 1948..... | 4,591 | 3,340 | 674 | 266 | 147 | 164 | 1,251 | 27.3 |
| 1949 ¹ | 6,198 | 5,195 | 603 | 208 | 109 | 83 | 1,003 | 16.2 |
| 1950..... | 6,418 | 5,039 | 892 | 314 | 140 | 33 | 1,379 | 21.5 |
| 1951 ² | 6,644 | 5,141 | 909 | 324 | 132 | 138 | 1,503 | 22.6 |
| 1952..... | 6,068 | 4,412 | 963 | 367 | 155 | 171 | 1,656 | 27.3 |
| 1953..... | 6,377 | 5,170 | 752 | 230 | 124 | 101 | 1,207 | 18.9 |
| 1954..... | 6,332 | 4,993 | 895 | 252 | 99 | 93 | 1,339 | 21.1 |
| 1955..... | 7,025 | 5,423 | 1,060 | 326 | 119 | 97 | 1,602 | 22.8 |

¹ Minor offences included since 1949.

² Newfoundland included since 1951.

Disposition of Cases.—In 1955 not quite one-half of the children's cases (43.7 p.c.) were heard within four days of the charge and slightly over two-thirds (67.0 p.c.) within nine days. However 9.2 p.c. of them had to wait at least two weeks and 9.8 p.c. waited a month or more before the first hearing. These waiting periods may be explained in various ways.

Some county courts sit only twice or even once a month. Hearings may be deferred because of sickness in the family, school examinations, stormy weather or long distances. The chief cause for delay, however, is the time it takes to investigate the facts properly. The probation officer, and frequently there is only one to a court, has to find out what occurred at the time of the delinquency; he must get in contact with the parents and the school, learn something of the home situation, perhaps arrange medical or psychiatric examinations and explore community resources. The disadvantage of a long waiting period is outweighed by the assistance the court receives in deciding the form of treatment best suited to the child's needs and the type of care that will be the most economical for the community. For these intervening days or weeks most children are left in their own homes while a minority are placed in detention homes and, in the long run, whether the effect of the waiting period is good or bad is determined by the care given the youngster during that time.

Juvenile court judges heard 93.4 p.c. and magistrates 5.8 p.c. of the juvenile cases before the courts. The balance were heard by justices of the peace. The proportion of those declared delinquent (93.7 p.c.) in the magistrate's courts was greater than in the juvenile courts (85.3 p.c.). In the former court 4.4 p.c. of the cases were dismissed while in the juvenile courts only 2.4 p.c. were dismissed but 12.3 p.c. were adjourned *sine die*.

Some courts consider children whose hearings are adjourned *sine die* as delinquent while others do not but, for the sake of uniformity in this report, the latter point of view is maintained by the Dominion Bureau of Statistics. In assessing the total problem of juvenile delinquency, however, cases adjourned *sine die* have to be taken into account for, when the proportion of cases dealt with in this way increases, the proportion of those declared delinquent declines.

31.—Juveniles before the Courts, Dismissed and Delinquent 1951-55

| Item | 1951 | | 1952 | | 1953 | | 1954 | | 1955 | |
|---------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | No. | p.c. | No. | p.c. | No. | p.c. | No. | p.c. | No. | p.c. |
| Before the courts..... | 7,521 | 100.0 | 7,213 | 100.0 | 7,829 | 100.0 | 7,751 | 100.0 | 8,187 | 100.0 |
| Dismissed..... | 195 | 2.6 | 178 | 2.5 | 216 | 2.8 | 237 | 3.1 | 207 | 2.5 |
| Adjourned <i>sine die</i> | 682 | 9.1 | 967 | 13.4 | 1,236 | 15.8 | 1,182 | 15.2 | 955 | 11.7 |
| Delinquent..... | 6,644 | 88.3 | 6,068 | 84.1 | 6,377 | 81.4 | 6,332 | 81.7 | 7,025 | 85.8 |

Sentences for delinquent boys usually differ somewhat from those for girls. In 1955 the proportion of boys put on probation was 48.8 p.c. and of girls 49.3 p.c. Fines or restitution were meted out to 16.3 p.c. of the boys but to only 6.9 p.c. of the girls. This is because damage to property, for which restitution seems a reasonable adjustment, is committed relatively more often by boys than by girls. A much larger proportion of girls (33.7 p.c.) than boys (14.4 p.c.) were sent to training schools. Final disposition of case was postponed for 8.6 p.c. of the girls and 16.9 p.c. of the boys were given suspended sentences.

32.—Disposition of Delinquents by Type of Sentence 1946-55

| Year | Reprimanded | | Probation of Court | | Protection of Parents | | Fined or Made Restitution | | Detained Indefinitely | | Sent to Training School | | Final Disposition Suspended | | Corporal Punishment | |
|-------------------------|-------------|------|--------------------|------|-----------------------|------|---------------------------|------|-----------------------|------|-------------------------|------|-----------------------------|------|---------------------|------|
| | No. | p.c. | No. | p.c. | No. | p.c. | No. | p.c. | No. | p.c. | No. | p.c. | No. | p.c. | No. | p.c. |
| 1946..... | 233 | 3.0 | 2,291 | 29.2 | 67 | 0.8 | 1,854 | 23.6 | 53 | 0.7 | 1,180 | 15.0 | 2,150 | 27.4 | 28 | 0.3 |
| 1947..... | 182 | 2.4 | 2,273 | 30.1 | 69 | 0.9 | 2,116 | 28.1 | 40 | 0.5 | 1,108 | 14.7 | 1,733 | 23.0 | 24 | 0.3 |
| 1948..... | 248 | 3.4 | 2,201 | 30.8 | 55 | 0.8 | 1,850 | 25.8 | 47 | 0.7 | 1,120 | 15.6 | 1,622 | 22.7 | 12 | 0.2 |
| 1949..... | 196 | 3.2 | 2,141 | 34.5 | 98 | 1.6 | 1,655 | 26.7 | 39 | 0.6 | 1,036 | 16.7 | 1,029 | 16.6 | 4 | 0.1 |
| 1950..... | 354 | 5.5 | 2,392 | 37.3 | 94 | 1.4 | 1,148 | 17.9 | 26 | 0.4 | 1,144 | 17.8 | 1,257 | 19.6 | 3 | 0.1 |
| 1951 ¹ | 309 | 4.6 | 2,313 | 34.8 | 154 | 2.3 | 1,433 | 21.6 | 45 | 0.7 | 1,141 | 17.2 | 1,247 | 18.7 | 2 | 0.1 |
| 1952..... | 243 | 4.0 | 2,412 | 39.8 | 148 | 2.4 | 1,015 | 16.7 | 1 | -- | 1,152 | 19.0 | 1,095 | 18.1 | 2 | -- |
| 1953..... | 227 | 3.6 | 2,620 | 41.1 | 186 | 2.9 | 1,147 | 18.0 | 28 | 0.4 | 1,107 | 17.4 | 1,062 | 16.6 | -- | -- |
| 1954..... | 199 | 3.1 | 2,595 | 41.0 | 174 | 2.8 | 1,095 | 17.3 | 27 | 0.4 | 1,121 | 17.7 | 1,119 | 17.7 | 2 | -- |
| 1955..... | 181 | 2.6 | 3,067 | 43.7 | 365 | 5.2 | 1,064 | 15.1 | 50 | 0.7 | 1,180 | 16.8 | 1,118 | 15.9 | -- | -- |

¹ Newfoundland included from 1951.

Section 4.—Police Forces

The Police Forces operating in Canada are organized under three groups: (1) the Federal Force, which is the Royal Canadian Mounted Police whose operations cover a very wide field in addition to purely police work; (2) Provincial Police Forces—the Provinces of Ontario and Quebec have organized their own Provincial Forces, but the other provinces engage the services of the Royal Canadian Mounted Police to perform parallel functions within their boundaries; (3) Municipal Police—every urban centre of reasonable size has its own police organization which is paid for by the local taxpayers and which attends to police matters within the borders of the municipality concerned.

Subsection 1.—The Royal Canadian Mounted Police*

The Royal Canadian Mounted Police is a Civil Force maintained by the Federal Government. Organized in 1873 as the North West Mounted Police, its duties were confined to what was then known as the North West Territories. By 1904 the work of the Force received signal recognition when the prefix "Royal" was bestowed upon it by King Edward VII. In 1905 when Alberta and Saskatchewan were constituted Provinces an arrangement was made whereby the Force continued to discharge its duties as formerly, each Province making a contribution towards defraying the cost. This arrangement was continued until 1917.

In 1918 the Royal North West Mounted Police was assigned the duty of enforcing Dominion legislation for the whole of Canada west of Port Arthur and Fort William. Soon after the end of World War I an extension of governmental activities made it obvious that the enforcement of Dominion statutes throughout Canada must be the responsibility of a Dominion Force and therefore the jurisdiction of the Royal North West Mounted Police was extended to the whole of Canada early in 1920. In that year the name of the Force was changed to the Royal Canadian Mounted Police and the former Dominion Police with Headquarters at Ottawa, whose duties were largely connected with guarding public buildings in that city and Canadian Government dockyards at Halifax, N.S., and Esquimalt, B.C., was absorbed by the Royal Canadian Mounted Police.

The Force is controlled and administered by a Minister of the Crown (the Minister of Justice). Its Commissioner has the rank and status of a Deputy Minister. Officers are commissioned by the Crown and are selected from serving non-commissioned officers. The Force is divided into 17 Divisions, including the Marine Division, with Headquarters at Ottawa, Ont. There are 613 detachments distributed over the entire country. Its land transportation consists of 1,359 motor vehicles, most of which are fitted with two-way radio sets connecting with wireless stations operated by the Force. Such stations operate in both Western and Eastern Canada, including the Quebec-United States boundary area. The Air Division of the Force operates 13 aircraft of various types. The strength of the Force is 4,863 officers and men, with a reserve strength of 300. The reserve strength is located chiefly in the larger cities where men can be congregated easily and where instruction can be given in the evenings. The Marine Division has a strength of 219 officers and men and operates 28 ships of various kinds, the majority of which are located on the Atlantic and Pacific Coasts and on the Great Lakes. The Personnel Branch of the RCMP has officers in each Division across the country. Great care is taken in the selection of recruits.

The Royal Canadian Mounted Police is responsible for enforcing federal laws throughout Canada and is specially empowered to deal with infractions against smuggling by sea, land and air. It also enforces the provisions of the Excise Act and is responsible for the suppression of traffic in narcotic drugs. In all, the Force has responsibility in over 50 Federal Government Acts including the Indian Act. It also assists many departments of the Federal Government in administrative duties and is responsible for the protection of government buildings and property. It is the sole police force operating in the Yukon and Northwest Territories. Furthermore it undertakes secret and security services for the Federal Government. In addition to its federal duties agreements have been made with the Provinces of Alberta, Saskatchewan, Manitoba, Nova Scotia, New Brunswick, Prince Edward Island, Newfoundland and British Columbia whereby the services of the Royal Canadian Mounted Police can be secured to enforce provincial laws and the Criminal Code in rural districts upon payment for such services. The agreement with Saskatchewan has been in existence since 1928 and those with the Provinces of Alberta, Manitoba, New Brunswick, Nova Scotia and Prince Edward Island since 1932. The agreements were entered into with the Provinces of Newfoundland and British Columbia in August 1950 and the police forces of those Provinces were absorbed by the Royal Canadian Mounted Police. The Force has agreements also for policing more than 124 district municipalities, cities and towns.

* Revised by Commissioner L. H. Nicholson, M.B.E., Royal Canadian Mounted Police, Ottawa.

The services of Royal Canadian Mounted Police experts in fingerprints, crime-index information, examination of firearms and questioned documents are available to all other police forces in Canada. A *Police Gazette*, issued monthly and containing instructional articles on police work as well as the latest information on wanted or missing persons, is sent to all police forces across the country. The Force has two Police Colleges that are open to selected personnel from other police forces in Canada and to a more limited number of those outside its boundaries.

The Royal Canadian Mounted Police has gained and held an outstanding position in the police world by its adherence to certain basic conceptions, as outlined in the following special article.

THE PHILOSOPHY OF THE ROYAL CANADIAN MOUNTED POLICE

If the philosophy of the Royal Canadian Mounted Police could be expressed in one word, that word would be "service". Service to the individual and to the community has always been the creed of the Force. It began when the North West Mounted Police went to the prairies in 1873, at which time it was essentially a frontier and a rural police force. The opportunity to give greater service arose in 1920 when, as the Royal Canadian Mounted Police, the organization acquired new responsibilities by expanding its field of operation over the whole of Canada. Since that time still greater opportunities have arisen as the Force has accepted certain provincial as well as wider federal duties.

The service rendered has included dealing with pioneer problems in Western Canada and the North, combating Canada's illicit drug traffic, preventing smuggling on the coasts and the United States border, policing rural areas from coast to coast, patrolling the Arctic and providing Canada's security service. In performing these duties, a strong sense of service has developed in individual members, and therein lies the real strength of the Force.

In order to master its original problems and to survive the conditions under which it was to function, the Force was organized as a semi-military body. And because this kind of organization has proved of lasting value, the training of present-day recruits and the work of the Force are still carried out in a semi-military atmosphere. It is not correct, however, to say that Royal Canadian Mounted Police discipline is military in character. Rather it is a training that serves the unique needs of the Force, which recognizes that discipline must be intelligently enforced and accepted in order to maintain high standards in an organization of some 4,800 members spread over the whole of Canada.

The Royal Canadian Mounted Policeman is impressed with the idea that public esteem for the law and its administration depends in large part on the exemplary behaviour of the individual who enforces that law. The Force therefore insists that discipline, as it pertains to its members, must set moral standards, often at a level higher than those displayed by the average citizen. Thus, a member must at all times act in accordance with the letter of the law and the spirit of the law—civil as well as moral law. Unless he is prepared to adopt this attitude he cannot approach his duties in the manner required of him.

In addition to discipline, the Force stresses the need for a strong sense of public service, initiative, independence of mind, and adaptability to changing conditions. These qualities are essential to the success of every member of the Royal Canadian Mounted Police and an effort is made to show all members, as early as possible, why they are desirable, not only for the sake of the Force but also for the country. At the same time, the Force realizes that it is not possible to convey the full meaning of public service until a member has had practical experience and has developed a satisfaction from his work.

The word "service" means different things to different people. To a member of the Royal Canadian Mounted Police, as distinct from most other public servants, it must be related to what the public in a democracy such as Canada requires of its police forces. Every member of the Royal Canadian Mounted Police, from his earliest days in training, is impressed with the fact that despite his powers as a peace officer, which are given him to carry out his many duties, his rights are no more than those of any other citizen. He must also understand that, although it is his duty to investigate crime, it is the courts of

the country which assess the evidence collected and administer justice. Every member of the Force must realize that his work, though important, is only one link in the legal chain, and that he must be scrupulously careful always to act within the law.

The Royal Canadian Mounted Police has proved that, given a sound sense of service, it is not difficult to maintain high standards. However, the Force considers it is not sufficient to appeal to idealism. Conditions of service receive attention at all levels so that men may develop a pride in their leaders and in their organization. Also, effort is made to develop in each member a sense of accomplishment, both in himself as an individual and in the Force as a whole. This is achieved through his work, through the personal attention paid to his progress and development by his superiors and through the opportunity given him to gain recognition and promotion for initiative, industriousness and devotion to duty.

The sense of accomplishment on a Force-wide basis is developed through a knowledge of the history of the Force, its present responsibilities, and its place in the development of Canada. The Force keeps alive all the colourful and inspiring traditions of the past and, although the work is now somewhat less colourful, it is still inspiring and of vital importance to the country.

Ever since its inception as the North West Mounted Police, the first aim of the Force has been the prevention of crime. The detection of crime has been of secondary importance. Both prevention and detection today, however, demand vastly different methods of procedure from those of early days. Modern methods of living and modern methods of commerce and industry permit the committing of crimes by methods not formerly possible. Crimes arising out of business have become more prevalent as have crimes arising out of the use of automobiles. Modern transport enables criminals to leave scenes of crime quickly and to commit similar crimes at distant points. The police of today can combat crime only by using modern methods. The realization of the need for advanced criminology has had a great influence on the Royal Canadian Mounted Police. Scientific laboratories have been set up, staffed by laboratory detectives who are more than a match for the criminals with whom they contend. Policemen are trained to understand and recognize modern and scientific criminal methods. They are also trained to understand and to use or to avail themselves of scientific methods for combating crime. Policemen in the field, on whom the scientific laboratories depend to collect and protect the material upon which they have to work, are given extensive courses in scientific crime detection, both in their initial training and from time to time throughout their careers. This leads to a constant awareness of up-to-date methods during daily work at all levels of the organization.

A further aspect of Royal Canadian Mounted Police development lies in its growing links with other police forces. The value to the public of co-operation between the Royal Canadian Mounted Police and other police forces in Canada and in other parts of the world, through the International Criminal Police Organization and similar bodies, becomes more evident each day. Indeed, in its unique position as a police force with federal, provincial and municipal police responsibilities, the Royal Canadian Mounted Police is increasingly aware of the necessity for the closest co-operation among all agencies engaged in combating crime and with law-abiding citizens.

The attitude of the public toward any police force depends in large part on the policemen the public meets personally, whether on a prairie farm, on the highway or on the beat in a large city. A police force may be up-to-date in every respect but unless relations between the police and the public lead the citizen to identify himself with his police force, a desirable situation will not exist. It is this sense of citizen-police identification which develops public confidence, and without this confidence police work becomes difficult if not impossible. Members of the Royal Canadian Mounted Police, therefore, are taught to strengthen citizen-police co-operation and are encouraged to approach their work with a sincere desire to develop good public relations. The paramount aim is to provide well-trained, courteous policemen who will win the confidence of the public by serving with efficiency and zeal, and who will also merge with and be a respected part of the community in which they live.

Although through continuous good service the Force has secured for itself a place of confidence in the minds of the Canadian public, its present performance is being used as a measure for raising standards in the future. By developing in its members an ever-increasing sense of loyalty and pride, the Force is endeavouring to improve the quality of service which is now synonymous with the name "Royal Canadian Mounted Police".

Subsection 2.—Provincial Police Forces*

Quebec Provincial Police Force.—This Force is responsible for upholding law and order over the whole territory of the Province from the provincial boundary between Ontario and Quebec to the Magdalen Islands in the Gulf of St. Lawrence. The Force is composed of about 1,000 men in charge of a Director, who is responsible to the Attorney-General of the Province.

To facilitate operations the territory is divided into two almost equal parts designated as the District of Montreal and the District of Quebec. The Director has his office in Montreal and an Assistant Director is situated in the city of Quebec. Working under these Directors are two Deputies and an Inspector General. In each District the Police Force is divided into three sections: the detective corps, the constabulary and the traffic officers. Each section is in charge of a captain supported by a number of lieutenants and sergeants.

A province-wide frequency modulation radio-communication system has been established at Montreal. A main station operating on the top of Mount Royal directs radio equipped cars within a radius of between 60 and 80 miles around Montreal; similar stations operating from the cities of Quebec and Three Rivers direct the mobile units operating in their respective areas. Substations operate at each of the eight bridges giving access to or exit from the city of Montreal and a number of cars, all equipped with three-way radio units, patrol the surrounding country day and night.

Ontario Provincial Police.—The Ontario Provincial Police Force is maintained by the Ontario Government and administered by the Attorney-General's Department. It is responsible for law enforcement in the rural and unorganized parts of the Province and in certain municipalities by contract. The development of the Force from its beginning in the early years of Confederation to the passing of the Police Act in 1946, is outlined in the 1950 Year Book, pp. 332-333.

The Force, with a strength of approximately 1,550 in 1956, consists of a General Headquarters at Toronto and District Headquarters at Chatham, London, Dundas, Niagara Falls, Newmarket, Mount Forest, Barrie, Peterborough, Belleville, Perth, Cornwall, North Bay, Sudbury, Sault Ste. Marie, Timmins, Port Arthur and Kenora. Each District has Detachments adequate to meet local law enforcement requirements. A Criminal Investigations Branch, under the command of a Chief Inspector, is maintained at Toronto to handle crimes of a major nature.

The Force operates one of the largest frequency modulation radio networks in the world, which is a most efficient method of combating every type of lawlessness. The network includes sixty fixed stations—forty-four 60-watt stations and sixteen 250-watt stations, one of which is dual-controlled—and 515 radio-equipped mobile units including five boats operating on Lake Temagami, Lake Simcoe, Lake Nipissing, Lake of the Woods, and Georgian Bay.

As of May 1957, the Ontario Police Force was policing 69 municipalities which requested this service under the provisions of the Police Act.

Subsection 3.—Municipal Police Statistics

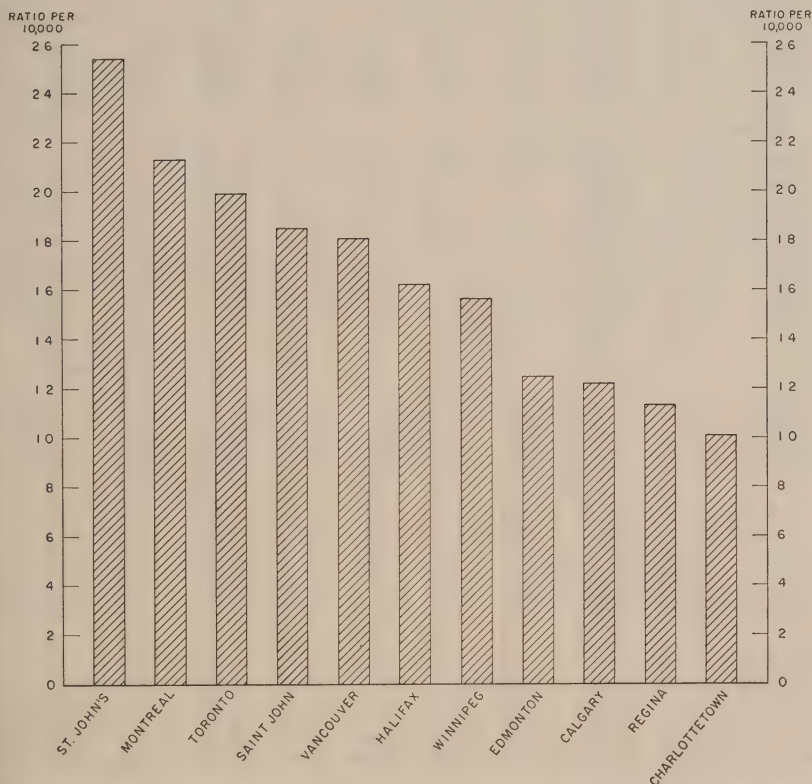
Police statistics were submitted to the DBS for 1955 by Chiefs of Police in 239 urban centres, 16 district communities, 15 townships and one unorganized district, all of 4,000 population or over. The ratio of police per 1,000 population in urban centres of 4,000 population or over for each province was as follows:—

* Revised by Geo. A. Shea, O.B.E., Secretary-Treasurer, Canadian Association of Chiefs of Police, Montreal, Que.

| <i>Province</i> | <i>Police per 1,000 Population</i> | <i>Province</i> | <i>Police per 1,000 Population</i> |
|---------------------------|--|-----------------------|--|
| Newfoundland..... | 2.2 | Manitoba..... | 1.5 |
| Prince Edward Island..... | 1.1 | Saskatchewan..... | 1.5 |
| Nova Scotia..... | 1.2 | Alberta..... | 1.7 |
| New Brunswick..... | 1.6 | British Columbia..... | 1.5 |
| Quebec..... | 1.7 | | |
| Ontario..... | 1.6 | ALL PROVINCES..... | 1.6 |

Police statistics for 1954 and 1955 are shown for urban centres of 10,000 population or over in each province in Table 33, and totals are given therein for centres of from 4,000 to 10,000 population. The figures in the column "Offences Known to the Police" include offences and attempted offences which became known to the police, having been reported by any person (including a police officer). Complaints about offences or attempts which, upon investigation, proved to be groundless are not included. Offences known to the police provide the basic data for estimating the prevailing volume and trends of criminality.

RATIO OF MUNICIPAL POLICE FORCES TO POPULATION
IN CERTAIN CITIES, 1955



33.—Police Statistics for Incorporated Centres of 10,000 Population or Over, and Totals for Incorporated Centres of 4,000-10,000 Population 1954 and 1955

| Province and Urban Centre | Population 1951 | Police on Force | | Offences Known to Police | | Prosecutions | | Arrests | |
|----------------------------------|------------------|-----------------|--------------|--------------------------|----------------|----------------|----------------|---------------|-------------------|
| | | 1954 | 1955 | 1954 | 1955 | 1954 | 1955 | 1954 | 1955 ¹ |
| | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| Newfoundland | | | | | | | | | |
| Totals, 10,000 or Over.. | 52,873 | 131 | 145 | 2,300 | 17,837 | 12,287 | 17,801 | 1,211 | 1,208 |
| St. John's..... | 52,873 | 131 | 145 | 2,300 | 17,837 | 12,287 | 17,801 | 1,211 | 1,208 |
| Totals, 4,000-10,000..... | 13,291 | 28 | 29 | 3,115 | 2,240 | 2,242 | 1,584 | 677 | 206 |
| Prince Edward Island | | | | | | | | | |
| Totals, 10,000 or Over.. | 15,887 | 17 | 17 | 1,104 | 5,168 | 1,080 | 5,128 | 944 | 873 |
| Charlottetown..... | 15,887 | 17 | 17 | 1,104 | 5,168 | 1,080 | 5,128 | 944 | 873 |
| Totals, 4,000-10,000..... | 6,547 | 7 | 7 | 425 | 698 | 597 | 664 | 331 | 268 |
| Nova Scotia | | | | | | | | | |
| Totals, 10,000 or Over.. | 178,708 | 238 | 257 | 13,389 | 9,349 | 26,306 | 18,375 | 7,593 | 1,097 |
| Dartmouth..... | 15,037 | 15 | 15 | 1,530 | 305 | 1,319 | 1,106 | 822 | .. |
| Glace Bay..... | 25,586 | 22 | 22 | 1,151 | 1,670 | 1,024 | 2,456 | 806 | 297 |
| Halifax..... | 85,589 | 137 | 152 | 6,321 | 3,194 | 18,500 | 6,466 | 3,657 | .. |
| New Waterford..... | 10,423 | 10 | 8 | 380 | 172 | 565 | 145 | 240 | .. |
| Sydney..... | 31,317 | 42 | 49 | 3,929 | 3,550 | 3,992 | 6,329 | 1,430 | .. |
| Truro..... | 10,756 | 12 | 11 | 78 | 458 | 906 | 1,873 | 638 | 800 |
| Totals, 4,000-10,000..... | 69,186 | 41 | 45 | 3,339 | 3,204 | 4,811 | 4,735 | 1,866 | 630 |
| New Brunswick | | | | | | | | | |
| Totals, 10,000 or Over.. | 104,884 | 177 | 186 | 6,146 | 15,906 | 20,651 | 20,571 | 4,998 | 1,192 |
| Edmundston..... | 10,753 | 13 | 13 | 448 | 568 | 611 | 791 | 309 | .. |
| Fredericton..... | 16,018 | 25 | 29 | 1,341 | 1,196 | 1,704 | 3,066 | 939 | .. |
| Moncton..... | 27,334 | 48 | 47 | 1,547 | 4,887 | 2,506 | 3,991 | 1,066 | 1,192 |
| Saint John..... | 50,779 | 91 | 97 | 2,810 | 9,255 | 15,830 | 12,723 | 2,684 | .. |
| Totals, 4,000-10,000..... | 30,613 | 29 | 29 | 2,395 | 3,214 | 2,897 | 5,212 | 1,389 | 570 |
| Quebec | | | | | | | | | |
| Totals, 10,000 or Over.. | 1,937,502 | 3,466 | 3,608 | 471,691 | 864,072 | 535,894 | 160,107 | 39,479 | 30,069 |
| Arvida..... | 11,078 | 19 | 18 | 198 | 632 | 180 | 583 | 98 | .. |
| Cap de la Madeleine.. | 18,667 | 24 | 26 | 954 | 638 | 484 | 555 | 484 | 193 |
| Chicoutimi..... | 23,111 | 25 | 24 | 838 | 327 | 1,064 | .. | 415 | .. |
| Drummondville..... | 14,341 | 17 | 28 | 739 | 1,063 | 1,688 | 750 | 457 | .. |
| Granby..... | 21,989 | 23 | 25 | 267 | 734 | 507 | 370 | 97 | .. |
| Grand Mère..... | 11,089 | .. | .. | .. | .. | .. | .. | .. | .. |
| Hull..... | 43,483 | 45 | 46 | 8,990 | 10,256 | 7,876 | 9,208 | 1,294 | .. |
| Jacques-Cartier..... | 22,450 | 24 | 27 | 376 | 2,872 | 943 | 1,289 | 135 | .. |
| Joliette..... | 16,064 | 24 | 17 | 399 | 571 | 324 | 403 | 52 | 93 |
| Jonquière..... | 21,618 | 20 | 25 | 1,631 | 115 | 574 | 176 | 422 | 602 |
| Lachine..... | 27,773 | 27 | 28 | 904 | 4,952 | 1,663 | 1,725 | 348 | 158 |
| LaSalle..... | 11,633 | 20 | 21 | 361 | 761 | 416 | 496 | 149 | 76 |
| Lévis..... | 13,162 | 18 | 17 | 167 | 762 | 843 | 719 | 142 | 176 |
| Longueuil..... | 11,103 | 14 | 14 | 888 | 1,034 | 624 | 672 | 68 | .. |
| Magog..... | 12,423 | 11 | 11 | 415 | 314 | 436 | 1 | 29 | 18 |
| Montreal..... | 1,021,520 | 2,260 | 2,364 | 370,173 | 745,733 | 370,421 | 64,378 | 24,717 | 21,349 |
| Montreal North..... | 14,081 | .. | .. | .. | .. | .. | .. | .. | .. |
| Mount Royal..... | 11,352 | 27 | 27 | 4,325 | 3,938 | 4,225 | 3,797 | 5 | 40 |
| Outremont..... | 30,057 | 48 | 48 | 11,383 | 10,987 | 9,090 | 11,643 | 339 | 119 |
| Quebec..... | 164,016 | 287 | 294 | 26,133 | 30,131 | 82,929 | 21,844 | 3,334 | 3,067 |
| Rimouski..... | 11,565 | 7 | 15 | 138 | 668 | 504 | .. | 81 | 50 |
| Rouyn..... | 14,633 | 13 | 15 | 683 | 222 | 8,582 | .. | 63 | 389 |
| St. Hyacinthe..... | 20,236 | 26 | 29 | 1,047 | 270 | 3,427 | 2,860 | 323 | 208 |
| St. Jean..... | 19,305 | 22 | 21 | 157 | 164 | 11 | 2 | 7 | .. |
| St. Jérôme..... | 17,685 | 17 | 18 | 368 | 2 | 332 | 166 | 345 | .. |
| St. Laurent..... | 20,426 | 33 | 39 | 756 | 4,876 | 4,560 | 3,496 | 206 | 78 |
| St. Michel..... | 10,539 | 23 | 22 | 139 | 1,009 | 2,150 | 882 | 47 | .. |
| Shawinigan Falls..... | 26,903 | 44 | 44 | 32 | 3,883 | 1,426 | 86 | 257 | 16 |
| Sherbrooke..... | 50,543 | 67 | 67 | 8,574 | 9,841 | 7,480 | 9,349 | 1,061 | 679 |
| Sillery..... | 10,376 | 8 | 10 | 841 | 137 | 46 | 2 | 4 | .. |
| Sorel..... | 14,961 | 19 | 19 | 719 | 865 | 418 | 1,397 | 340 | 431 |
| Thetford Mines..... | 15,095 | 20 | 20 | 1,390 | 1 | 375 | 2,313 | 246 | 160 |
| Three Rivers..... | 46,074 | 83 | 87 | 7,519 | 8,186 | 6,801 | 7,833 | 1,314 | 1,459 |
| Valleyfield..... | 22,414 | 31 | 32 | 188 | 690 | 743 | 23 | 29 | 8 |
| Verdun..... | 77,391 | 67 | 63 | 6,081 | 6,109 | 4,801 | 3,253 | 1,265 | 761 |
| Victoriaville..... | 13,124 | 12 | 13 | 52 | 29 | 1,160 | 970 | 162 | 63 |
| Westmont..... | 25,222 | 42 | 42 | 13,866 | 9,120 | 7,891 | 8,798 | 818 | 265 |
| Totals, 4,000-10,000..... | 319,334 | 332 | 320 | 16,768 | 36,772 | 22,920 | 18,154 | 3,767 | 2,315 |

¹ Arrests other than for traffic and parking offences.

33.—Police Statistics for Incorporated Centres of 10,000 Population or Over, and Totals for Incorporated Centres of 4,000-10,000 Population 1954 and 1955—continued

| Province and Urban Centre | Population 1951 | Police on Force | | Offences Known to Police | | Prosecutions | | Arrests | |
|---------------------------|-----------------|-----------------|-------|--------------------------|-----------|--------------|-----------|---------|-------------------|
| | | 1954 | 1955 | 1954 | 1955 | 1954 | 1955 | 1954 | 1955 ¹ |
| Ontario | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| Totals, 10,000 or Over.. | 2,106,708 | 3,390 | 3,478 | 1,076,121 | 1,092,359 | 1,114,683 | 1,149,527 | 72,577 | 55,569 |
| Barrie..... | 12,514 | 14 | 16 | 2,658 | 1,663 | 1,342 | 3,140 | 462 | 3 |
| Belleville..... | 19,519 | 24 | 24 | 2,273 | 3,576 | 2,389 | 3,829 | 589 | 649 |
| Brantford..... | 36,727 | 41 | 54 | 1,828 | 5,930 | 2,107 | 5,360 | 656 | 54 |
| Brockville..... | 12,301 | 16 | 15 | 1,493 | 7,880 | 3,423 | 5,156 | 498 | .. |
| Chatham..... | 21,218 | 34 | 33 | 3,112 | 12,921 | 2,349 | 2,820 | 449 | 44 |
| Cornwall..... | 16,899 | 20 | 22 | 1,772 | 2,457 | 1,556 | 3,235 | 429 | 469 |
| Eastview..... | 13,799 | 10 | 11 | 1,895 | 956 | 724 | 754 | 65 | 90 |
| Forest Hill..... | 15,305 | 31 | 34 | 432 | 5,712 | 4,068 | 13,405 | 83 | 71 |
| Fort William..... | 34,947 | 47 | 51 | 3,632 | 2,630 | 9,048 | 2,422 | 1,139 | 107 |
| Galt..... | 19,207 | 18 | 19 | 1,663 | 2,410 | 1,375 | 2,495 | 241 | 337 |
| Guelph..... | 27,386 | 34 | 40 | 12,143 | 515 | 12,177 | 4,650 | 653 | 570 |
| Hamilton..... | 208,321 | 357 | 364 | 145,146 | 6,121 | 145,918 | 143,459 | 5,985 | 3,925 |
| Kingston..... | 33,459 | 56 | 56 | 32,141 | 33,093 | 24,282 | 23,989 | 1,517 | 1,505 |
| Kitchener..... | 44,867 | 60 | 70 | 9,432 | 6,203 | 6,631 | 6,139 | 661 | 533 |
| Leaside..... | 16,233 | 18 | 20 | 6,592 | 348 | 6,356 | 617 | 41 | 97 |
| London..... | 95,343 | 143 | 160 | 77,627 | 71,864 | 75,191 | 13,852 | 1,830 | .. |
| Mimico..... | 11,342 | 10 | 10 | 1,942 | 2,097 | 1,657 | 2,897 | 112 | 85 |
| New Toronto..... | 11,194 | 15 | 16 | 1,762 | 6,031 | 1,762 | 2,019 | 331 | 179 |
| Niagara Falls..... | 22,874 | 40 | 39 | 5,215 | 3,769 | 4,968 | 3,722 | 699 | 605 |
| North Bay..... | 17,944 | 25 | 26 | 3,091 | 3,502 | 2,823 | 3,115 | 1,211 | 1,303 |
| Orillia..... | 12,110 | 9 | 11 | 992 | 4,117 | 994 | 1,748 | 278 | .. |
| Oshawa..... | 41,545 | 50 | 50 | 4,650 | 6,000 | 20,281 | 7,126 | 1,052 | 985 |
| Ottawa..... | 202,045 | 298 | 303 | 9,030 | 9,707 | 31,674 | 37,448 | 3,656 | 3,536 |
| Owen Sound..... | 16,423 | 18 | 20 | 1,462 | 1,656 | 3,410 | 1,625 | 528 | .. |
| Pembroke..... | 12,704 | 12 | 12 | 1,030 | 1,981 | 882 | 2,051 | 697 | 664 |
| Peterborough..... | 38,272 | 46 | 45 | 4,861 | 439 | 4,536 | 2,849 | 637 | .. |
| Port Arthur..... | 31,161 | 54 | 54 | 6,781 | 13,803 | 13,255 | 14,769 | 3,204 | 2,629 |
| St. Catharines..... | 37,984 | 50 | 51 | 3,473 | 4,891 | 13,587 | 18,676 | 1,007 | 969 |
| St. Thomas..... | 18,173 | 21 | 22 | 2,562 | 2,642 | 2,389 | 4,004 | 297 | 258 |
| Sarnia..... | 34,697 | 53 | 53 | 7,693 | 5,461 | 4,941 | 5,501 | 794 | 820 |
| Sault Ste. Marie..... | 32,452 | 42 | 44 | 2,473 | 2,303 | 6,745 | 9,996 | 963 | 1,046 |
| Stratford..... | 18,785 | 20 | 20 | 337 | 753 | 1,236 | 974 | 228 | .. |
| Sudbury..... | 42,410 | 58 | 58 | 17,599 | 14,690 | 16,697 | 13,684 | 2,547 | .. |
| Timmins..... | 27,743 | 26 | 26 | 7,033 | 1,667 | 7,009 | 2,953 | 754 | 725 |
| Toronto..... | 675,754 | 1,326 | 1,332 | 634,033 | 781,102 | 618,849 | 703,238 | 33,542 | 28,834 |
| Trenton..... | 10,085 | 14 | 16 | 446 | 641 | 2,761 | 6,091 | 341 | 355 |
| Waterloo..... | 11,991 | 14 | 13 | 3,032 | 197 | 3,000 | 3,784 | 169 | 123 |
| Welland..... | 15,382 | 22 | 22 | 5,615 | 4,658 | 4,442 | 4,859 | 304 | .. |
| Windsor..... | 120,049 | 223 | 225 | 45,385 | 50,785 | 43,663 | 55,354 | 3,479 | 2,694 |
| Woodstock..... | 15,544 | 21 | 21 | 2,285 | 5,188 | 4,186 | 5,722 | 449 | 409 |
| Totals, 4,000-10,000..... | 275,918 | 284 | 301 | 28,099 | 44,868 | 41,012 | 52,106 | 5,506 | 2,758 |
| Manitoba | | | | | | | | | |
| Totals, 10,000 or Over.. | 282,650 | 433 | 450 | 15,057 | 110,523 | 127,621 | 185,662 | 7,317 | 7,061 |
| Brandon..... | 20,598 | 22 | 21 | 1,455 | 5,356 | 4,162 | 751 | 249 | 284 |
| St. Boniface..... | 26,342 | 24 | 29 | 6,517 | 6,704 | 5,744 | 5,335 | 349 | 291 |
| Winnipeg..... | 235,710 | 387 | 400 | 7,085 | 98,463 | 117,715 | 179,576 | 6,719 | 6,456 |
| Totals, 4,000-10,000..... | 37,387 | 38 | 39 | 2,113 | 8,169 | 6,481 | 4,057 | 808 | 348 |
| Saskatchewan | | | | | | | | | |
| Totals, 10,000 or Over.. | 166,091 | 225 | 245 | 19,253 | 79,300 | 41,332 | 70,116 | 5,677 | 2,652 |
| Moose Jaw..... | 24,355 | 30 | 31 | 2,526 | 6,359 | 6,002 | 4,833 | 898 | 669 |
| Prince Albert..... | 17,149 | 19 | 20 | 1,739 | 1,500 | 3,371 | 3,272 | 712 | 490 |
| Regina..... | 71,319 | 94 | 102 | 8,323 | 30,307 | 26,685 | 23,429 | 2,284 | .. |
| Saskatoon..... | 53,268 | 82 | 92 | 6,665 | 41,134 | 5,274 | 38,582 | 1,783 | 1,493 |
| Totals, 4,000-10,000..... | 33,611 | 40 | 46 | 4,349 | 9,188 | 10,023 | 15,592 | 836 | 725 |
| Alberta | | | | | | | | | |
| Totals, 10,000 or Over.. | 323,002 | 496 | 557 | 53,207 | 360,219 | 40,537 | 62,640 | 14,087 | 12,176 |
| Calgary..... | 129,060 | 204 | 222 | 17,226 | 89,377 | 11,431 | 11,243 | 5,011 | 4,737 |
| Edmonton..... | 159,631 | 240 | 284 | 29,478 | 256,529 | 20,229 | 33,125 | 8,208 | 6,547 |
| Lethbridge..... | 22,947 | 29 | 28 | 4,958 | 8,747 | 7,139 | 17,429 | 527 | 576 |
| Medicine Hat..... | 16,364 | 23 | 23 | 1,545 | 5,566 | 1,738 | 843 | 341 | 316 |
| Totals, 4,000-10,000..... | 20,845 | 27 | 32 | 6,277 | 2,976 | 6,299 | 2,039 | 685 | 336 |

¹ Arrests other than for traffic and parking offences.

33.—Police Statistics for Incorporated Centres of 10,000 Population or Over, and Totals for Incorporated Centres of 4,000-10,000 Population 1954 and 1955—concluded

| Province and Urban Centre | Population 1951 | Police on Force | | Offences Known to Police | | Prosecutions | | Arrests | |
|---|------------------|-----------------|--------------|--------------------------|------------------|------------------|------------------|----------------|-------------------|
| | | 1954 | 1955 | 1954 | 1955 | 1954 | 1955 | 1954 | 1955 ¹ |
| | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| British Columbia | | | | | | | | | |
| Totals, 10,000 or Over... | 462,468 | 799 | 844 | 69,078 | 187,106 | 127,403 | 362,842 | 18,568 | 17,106 |
| New Westminster..... | 28,639 | 46 | 46 | 10,441 | 11,022 | 6,983 | 10,067 | 1,025 | — |
| North Vancouver..... | 15,687 | .. | 17 | .. | 275 | .. | 1,728 | .. | 159 |
| Penticton..... | 10,548 | .. | 10 | 1,891 | 1,697 | 1,489 | 1,535 | 299 | .. |
| Trail..... | 11,430 | 12 | 15 | 4,183 | 6,027 | 4,323 | 11,225 | 93 | 102 |
| Vancouver..... | 344,833 | 638 | 665 | 30,822 | 138,568 | 94,034 | 277,714 | 15,958 | 15,598 |
| Victoria..... | 51,331 | 93 | 91 | 21,741 | 29,517 | 20,574 | 60,573 | 1,193 | 1,247 |
| Totals, 4,000-10,000..... | 75,700 | 107 | 122 | 13,428 | 17,368 | 13,491 | 21,884 | 5,539 | 5,069 |
| Grand Totals, Incorporated Centres of 10,000 Population or Over..... | 5,635,773 | 9,372 | 9,787 | 1,727,346 | 2,741,839 | 2,047,794 | 2,052,769 | 172,451 | 129,003 |
| Grand Totals, Incorporated Centres of 4,000-10,000 Population..... | 882,432 | 933 | 970 | 80,308 | 128,697 | 110,773 | 126,027 | 21,404 | 13,225 |

¹ Arrests other than for traffic and parking offences.

Section 5.—Penal Institutions and Training Schools

Penal institutions may be classified under three headings: (1) penitentiaries, where prisoners have long sentences and the turnover is slow; (2) reformatories, where the turnover is also rather slow; and (3) common gaols, where the turnover is extremely rapid.

If the average of the figures for inmates at the beginning and at the end of the year be considered the average population for the year, and the number of discharged as the turnover, the turnover in the years 1954 and 1955 was: in penitentiaries, 61 and 51 p.c.; in reformatories, 351 and 365 p.c.; and in gaols, no less than 1,658 and 1,712 p.c. respectively.

In considering these figures it should be borne in mind that the common gaol population changes from day to day and is made up partly of accused persons awaiting trial who may be either liberated or sent to a penitentiary or reformatory.

34.—Movement of Population in Penitentiaries, Reformatories and Gaols 1952-55

| Type of Institution and Item | 1952 | 1953 | 1954 | 1955 |
|--|-------|-------|--------|--------|
| | No. | No. | No. | No. |
| Penitentiaries— | | | | |
| Inmates in custody at beginning of year..... | 4,817 | 4,686 | 4,934 | 5,120 |
| Admitted during the year..... | 2,181 | 3,119 | 3,275 | 3,096 |
| Discharged during the year..... | 2,312 | 2,871 | 3,089 | 2,709 |
| In custody at end of year..... | 4,686 | 4,934 | 5,120 | 5,507 |
| Reformatories for Men— | | | | |
| Inmates in custody at beginning of year..... | 2,622 | 2,828 | 2,818 | 2,906 |
| Admitted during the year..... | 8,613 | 9,331 | 10,081 | 10,804 |
| Discharged during the year..... | 8,407 | 9,341 | 9,993 | 10,720 |
| In custody at end of year..... | 2,828 | 2,818 | 2,906 | 2,990 |
| Reformatories for Women— | | | | |
| Inmates in custody at beginning of year..... | 160 | 178 | 160 | 155 |
| Admitted during the year..... | 451 | 513 | 591 | 622 |
| Discharged during the year..... | 433 | 531 | 603 | 612 |
| In custody at end of year..... | 178 | 160 | 148 | 165 |

34.—Movement of Population in Penitentiaries, Reformatories and Gaols 1952-55— concluded

| Type of Institution and Item | 1952 | 1953 | 1954 | 1955 |
|--|--------|---------|---------|---------|
| | No. | No. | No. | No. |
| Common Gaols— | | | | |
| Inmates in custody at beginning of year..... | 5,445 | 5,599 | 5,779 | 6,283 |
| Admitted during the year..... | 87,917 | 93,890 | 100,519 | 108,668 |
| Discharged during the year..... | 87,763 | 93,710 | 100,015 | 108,554 |
| In custody at end of year..... | 5,599 | 5,779 | 6,283 | 6,397 |
| Totals— | | | | |
| Inmates in custody at beginning of year..... | 13,044 | 13,291 | 13,691 | 14,464 |
| Admitted during the year..... | 99,162 | 106,853 | 114,466 | 123,190 |
| Discharged during the year..... | 98,915 | 106,453 | 113,700 | 122,595 |
| In custody at end of year..... | 13,291 | 13,691 | 14,457 | 15,059 |

Subsection 1.—Penitentiaries*

The penitentiaries of Canada are administered by the Penitentiaries Branch of the Department of Justice. Eight institutions are included in the system, the two largest being at Kingston, Ont., and St. Vincent de Paul, Que. Others are at Dorchester, N.B., Prince Albert, Sask., Stony Mountain, Man., New Westminster, B.C., Collin's Bay, Ont., and St. John's, Nfld., though the latter is operated under provincial authority. Included also in the system is a Federal Training Centre at St. Vincent de Paul operated for the treatment and training of offenders under 25 years of age and a Penitentiary Staff College at Kingston for the training of penitentiary officers through courses of instruction and training conferences. In April 1957, Joyceville Institution, ten miles from Kingston, started operating as part of Kingston Penitentiary. Its present accommodation is limited to 48 inmates, but when construction is completed the capacity of this new eastern institution will be increased to 500. It will then become a self-contained organization distinct from Kingston Penitentiary. During the year ended Mar. 31, 1956, the average daily population of the penitentiaries was 5,237 and the total net cash outlay for maintenance for the year was \$8,832,502 or \$4.62 per inmate per day.

Females given penitentiary sentences in the various provinces are sent to the Prison for Women at Kingston, Ont., where special quarters and staff are maintained for their detention and supervision; inmates in custody on Mar. 31, 1956, numbered 84.

Since the proclamation of the Penitentiary Act on Sept. 1, 1947, many of the recommendations of the Royal Commission (1938)—usually called the Archambault Commission—to investigate the penal system in Canada have been implemented. The Commission made 88 recommendations 68 of which involved action on the part of the Federal Government and the other 20 involved either joint action with the provinces or were the responsibility of the provinces and/or local communities.

Of the 68 recommendations which called for action on the part of the Federal Government, at least 50 have been or are in process of being carried out. Among these are the following:

- (1) In 1947 the headquarters administration of the penitentiaries was completely reorganized, a move which included the appointment of a Commissioner responsible directly to the Minister of Justice, and of Deputy and Assistant Commissioners to assist him in the performance of his duties.
- (2) Wardens have been given full responsibility for the executive management of their institutions under the direction of the Commissioner. Four conferences of all Penitentiary Wardens have been held in Ottawa since 1947.

* Prepared under the direction of R. B. Gibson, Commissioner of Penitentiaries, Ottawa.

- (3) More than half of all the penitentiary staffs have so far attended training courses at the Penitentiary Staff College at Kingston. In addition, in-service training officers have been appointed at all institutions and local training is carried out for all newly appointed officers.
- (4) The pay of penitentiary officers has been increased in nearly all cases by at least 100 p.c. since the Commission's report. For example, guards in 1938 received a maximum salary of \$1,500 and now receive \$3,600. The 40-hour week was introduced in 1955.
- (5) A complete revision of the methods of classifying prisoners has been made and two or more qualified Classification Officers are now employed at each institution. These officers assess each inmate, after obtaining information as to his previous record, social habits, aptitudes, educational attainments and general background, and submit their reports to a Classification Board for decision upon a plan for treatment and employment. The Classification Officers work in close co-operation with officials of the National Employment Service and the Prisoners' Aid Societies in planning employment and assistance on the prisoner's release and officials of these organizations regularly visit the penitentiaries and interview inmates.
- (6) Full-time vocational training courses in most of the construction trades have been set up at five institutions under competent teacher-trainers, the courses lasting for a period of nine months. Necessary equipment, tools and materials to turn out well qualified tradesmen are provided. Results to date show that less than 20 p.c. of those who have taken these training courses have been subsequently charged with criminal offences.
- (7) The staff of school teachers has been more than doubled since 1947, libraries have been modernized and the supply of books, magazines, technical books and educational films greatly increased. Correspondence courses provided by the Department of Veterans Affairs and by the Provincial Departments of Education are available free of charge to all inmates who wish to take advantage of them.
- (8) A comprehensive program of recreational activities is in effect in all institutions, with facilities for softball, soccer, hockey, boxing and other sports to be carried on in non-working hours. Hobbycraft activities are permitted in the cells, and prison magazines prepared and edited by inmate editorial boards are published at all institutions.
- (9) Hospitals have been modernized and supplied with much additional equipment, such as X-ray equipment, surgical appliances, and other modern aids to diagnosis and treatment.
- (10) Psychiatrists are now employed on the staff of six penitentiaries, and outside psychiatrists are consulted at the institutions where a staff psychiatrist is not available. At one institution there is a special psychiatric ward with a trained staff.
- (11) A thorough survey of the prison industrial shops was undertaken, shops were modernized, provided with proper lighting and facilities and hundreds of thousands of dollars worth of modern machinery. The value of industrial work produced in these shops increased from \$409,278 in 1946-47 to \$1,223,723 in 1955-56.
- (12) Remuneration for the prisoners has been increased from a flat rate of 5 cents per day to a graded scale of 12, 18 and 24 cents, based on individual rating for conduct, industry and progress towards rehabilitation. A portion of the money so earned is set aside for the day of release, with the balance available for spending in the institutional canteen for small comforts such as tobacco, sweets, soft drinks and toilet articles.
- (13) The recommendation of the Commission with regard to Prisoners' Aid Societies has been largely implemented by the formation of John Howard Societies or other similar associations in every province and in many localities in the individual provinces; these societies are assisted by grants from the Government of Canada.
- (14) The rules for the discipline of officers have been revised, and provide that no officer may be dismissed without being heard, and he must be advised of the reason for his dismissal.
- (15) All penitentiary kitchens have been modernized and supplied with the necessary mechanical equipment to meet approved culinary and sanitary requirements. A qualified official at Headquarters is employed to supervise and direct the operation of the kitchens.
- (16) An agricultural college graduate was appointed Supervisor of Farms and the farming operations have been greatly expanded. Dairy herds are maintained at all institutions except British Columbia and Collin's Bay, with pedigreed stock and a high record of milk production. Most of the pork, eggs, and vegetables used in the penitentiaries are produced on the farms. Factories for the canning of fruit and vegetables are in operation at two institutions.

35.—Movement of Convicts in Penitentiaries, Years Ended Mar. 31, 1952-55

| Item | 1952 | 1953 | 1954 | 1955 |
|--|--------------|--------------------------|--------------|--------------|
| | No. | No. | No. | No. |
| In Custody, Apr. 1 | 4,817 | 4,686¹ | 4,934 | 5,120 |
| Received— | | | | |
| From gaols | 1,847 | 2,136 | 2,434 | 2,378 |
| By transfer | 323 | 970 | 827 | 708 |
| By cancellation of ticket-of-leave | 12 | 13 | 14 | 10 |
| Totals, Received | 2,182 | 3,119 | 3,275 | 3,096 |
| Discharged by— | | | | |
| Expiry of sentence | 1,554 | 1,463 | 1,810 | 1,456 |
| Transfer | 322 | 972 | 826 | 708 |
| Ticket-of-leave | 373 | 384 | 384 | 449 |
| Deportation | — | 5 | — | — |
| Death | 24 | 11 | 21 | 16 |
| Pardon | 25 | 21 | 36 | 66 |
| Release to military authorities | 1 | — | — | — |
| Release on order of court | 13 | 15 | 12 | 9 |
| Return to provincial authorities | — | — | — | — |
| Instructions from Immigration Department | — | — | — | — |
| Other reason | — | — | — | 5 |
| Totals, Discharged | 2,312 | 2,871 | 3,089 | 2,709 |
| In Custody, Mar. 31 | 4,687 | 4,934 | 5,120 | 5,507 |

¹ This figure shows one inmate fewer than at Mar. 31, 1952. Sentence of one inmate was annulled by court order during year ended Mar. 31, 1952, but notification was not received by the penitentiary until the following fiscal year.

36.—Summary Statistics re Convicts in Penitentiaries as at Mar. 31, 1952-55

| Item | 1952 | 1953 | 1954 | 1955 |
|-------------------------------------|--------------|--------------|--------------|--------------|
| | No. | No. | No. | No. |
| Place of Birth— | | | | |
| Canada | 4,272 | 4,554 | 4,712 | 5,123 |
| British Isles and possessions | 121 | 116 | 138 | 134 |
| Austria and Hungary | 20 | 14 | 14 | 13 |
| Italy | 9 | 9 | 9 | 7 |
| Poland | 33 | 38 | 29 | 33 |
| U.S.S.R. | 53 | 30 | 24 | 24 |
| Other Europe | 63 | 66 | 84 | 67 |
| United States | 95 | 91 | 90 | 99 |
| Other countries | 21 | 16 | 20 | 7 |
| Marital Status— | | | | |
| Single | 2,776 | 2,955 | 3,017 | 3,357 |
| Married | 1,575 | 1,607 | 1,592 | 1,603 |
| Widowed | 133 | 132 | 132 | 143 |
| Divorced | 84 | 132 | 131 | 130 |
| Separated | 119 | 108 | 248 | 274 |
| Sex— | | | | |
| Male | 4,562 | 4,829 | 5,025 | 5,412 |
| Female | 125 | 105 | 95 | 95 |
| Age— | | | | |
| Under 21 years | 485 | 564 | 639 | 694 |
| 21 to 29 " | 2,091 | 2,151 | 2,192 | 2,299 |
| 30 to 39 " | 1,245 | 1,293 | 1,364 | 1,467 |
| 40 to 49 " | 543 | 572 | 597 | 701 |
| 50 to 59 " | 212 | 239 | 213 | 232 |
| Over 60 " | 111 | 115 | 115 | 114 |
| Totals | 4,687 | 4,934 | 5,120 | 5,507 |

The Ticket-of-Leave System.—The parole system in Canada is legalized under the Ticket-of-Leave Act (R.S.C. 1952, c. 264) administered by the Minister of Justice. It is described in detail in the 1948-49 Year Book, pp. 305-308.

Subsection 2.—Reformatories and Other Corrective Institutions

As of June 1, 1951, there were 13 reformatory and corrective institutions, four of which were for women. Enumeration cards were completed for 2,551 men and 141 women on June 1, 1951. In these institutions for adults 29 p.c. of the inmates were under 21 years of age at the time of admission and almost 50 p.c. were between the ages of 21 and 39 years. The proportion of single men was 63 p.c. and three out of four of the men whose residence was known lived in urban centres. More than one-half of the women (53.2 p.c.) were single and the majority (91.0 p.c.) of those whose residence was known lived in urban centres. From five to eight years of elementary school education were recorded for about one-half of the male and female inmates. Only 6.7 p.c. of the men were unemployed at the time of admission. On the other hand 20.6 p.c. of the women were unemployed and another 34.0 p.c. had never worked.

The revenue for the support of the institutions for men was derived chiefly from provincial funds (56.0 p.c.) and from the sale by the institutions of farm and industrial products (41.3 p.c.). To support the institutions for women, income was received from provincial funds (31.0 p.c.), municipalities (1.8 p.c.), sale of products (53.4 p.c.), donations and bequests (4.6 p.c.) and other sources (9.2 p.c.).

Summary statistics of inmates, movement of population, terms of sentence and penal record of inmates are given in the 1954 Year Book, pp. 311-313.

Subsection 3.—Training Schools

Reports on movement of population are received yearly from training schools and figures compiled therefrom are shown in Table 37 for the years 1952 to 1955.

37.—Movement of Population in Training Schools, Years Ended Mar. 31, 1952-55

| Item | 1952 | 1953 | 1954 | 1955 |
|---|-------|-------|-------|------------------|
| | No. | No. | No. | No. |
| Training Schools for Boys— | | | | |
| Pupils in residence at beginning of year..... | 1,668 | 1,802 | 1,833 | 1,977 |
| Admitted during the year..... | 1,597 | 1,695 | 1,811 | 2,079 |
| Discharged during the year..... | 1,463 | 1,664 | 1,667 | 1,988 |
| In residence at end of year..... | 1,802 | 1,833 | 1,977 | 2,068 |
| Training Schools for Girls— | | | | |
| Pupils in residence at beginning of year..... | 674 | 753 | 859 | 928 ¹ |
| Admitted during the year..... | 608 | 808 | 781 | 767 |
| Discharged during the year..... | 529 | 702 | 705 | 774 |
| In residence at end of year..... | 753 | 859 | 935 | 921 |
| Totals— | | | | |
| Pupils in residence at beginning of year..... | 2,342 | 2,555 | 2,692 | 2,905 |
| Admitted during the year..... | 2,205 | 2,503 | 2,592 | 2,846 |
| Discharged during the year..... | 1,992 | 2,366 | 2,372 | 2,762 |
| In residence at end of year..... | 2,555 | 2,692 | 2,912 | 2,989 |

¹ The discrepancy between pupils in residence end of year 1954 and those in residence at beginning of year 1955 comes from the inclusion in Home of the Good Shepherd, Saint John, N.B., of seven adults.

More detailed information on training schools is collected at each decennial census. Statistics compiled from the Census of 1951 are summarized in the 1954 Year Book, pp. 314-316.

CHAPTER VIII.—EDUCATION AND RESEARCH

CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

PART I.—FORMAL EDUCATION*

Section 1.—Education in the Provinces and Territories

"In and for each Province the Legislature may exclusively make Laws in relation to Education..." In these words the British North America Act of 1867 makes constitutional provision for the control of Canada's schools.

With certain exceptions, which are mentioned below, each provincial public school system is administered by a Department of Education, headed by an elected Minister who is a member of the provincial Cabinet and operated under the direction of a Deputy Minister who is a civil servant. In accordance with the school laws of the province, the Department of Education determines curricula for the elementary and secondary schools, is responsible for the certification of teachers, and supervises and provides central services for the schools. Local boards of school trustees, usually elected, arrange for the construction and maintenance of school buildings and employ the teachers. Their funds come chiefly from local property taxes and provincial grants.

In addition to these public elementary and secondary school systems there are private elementary and secondary schools, institutions (for the most part governmental) for the education of exceptional children, vocational training institutions controlled by a variety of provincial government departments and by non-governmental bodies, public and private universities and colleges, and adult education agencies under the control of governments and voluntary associations.

* Prepared in the Education Division, Dominion Bureau of Statistics.

Although there are variations from province to province, and within provinces, the usual pattern of education is an eleven- to thirteen-grade system of elementary and high schools, one- to three-year courses in trade schools and technical institutes at the secondary level, post-secondary teachers' colleges with one- to four-year programs of training, and universities offering three-year and longer courses in the arts and sciences and the professions. Agencies of adult education, both formal and informal, provide short- and long-term programs of study.

Characteristic of education at all levels and in most regions are: (1) rapidly increasing enrolments; (2) active school building programs, never quite catching up with the demand for facilities; (3) a shortage of teachers—despite increased salaries, recruitment from the United Kingdom, and emergency short-course training schemes; and (4) mounting expenditures. The attention being given to the education of exceptional children in recent years is worthy of special note.

The following paragraphs indicate the ways in which the several provincial systems differ from the pattern outlined above, together with mention of institutions and practices of special interest and of significant recent developments in education.

Newfoundland.—Newfoundland might be said to have a public denominational school system. The Deputy Minister is assisted by four Superintendents of Education, one for each of the four main religious denominations—Anglican, Roman Catholic, Salvation Army and United Church. The Minister of Education, the Deputy Minister and the four Superintendents form a Council of Education which makes educational policy and co-ordinates the various parts of the system. One curriculum serves the schools of all denominations and teachers receive common training in the Memorial University of Newfoundland, a provincial institution.

Each denomination builds and maintains its own schools, with financial assistance from the Provincial Government. The salaries of almost all teachers are paid directly by the Province according to a provincial scale. Until recently no provision had been made for local taxation, but in 1954 legislation was passed which provided that any area might be declared taxable for school purposes. By 1955 only one area had been so declared.

Some children are admitted to school at the age of five in what is called a "pre-grade 1" class. Elementary education includes grades 1 to 8 and secondary education grades 9 to 11. Most schools teach both elementary and secondary grades. The high school curriculum is academic, leading to university entrance after grade 11. In some schools in St. John's, grade 12 studies are offered (they follow the Nova Scotia grade 12 program of studies and the pupils write Nova Scotia examinations) and a post-grade 11 commercial course is taught. An active school building program in the Province includes, for the first time, regional high schools. Few private schools are operated in Newfoundland.

Trade training is offered in the St. John's Vocational Training Institute. A provincial university to which is affiliated a theological college (Queen's) is located in St. John's. The Division of Adult Education of the Department of Education sponsors programs in both urban and rural centres.

Prince Edward Island.—Except in Charlottetown and the incorporated towns, the school boards are the only local governing authorities, and therefore collect the school tax. Teachers' salaries are provided by the Provincial Government, supplemented by the local school board.

Kindergarten classes are available in a few urban schools. The elementary school curriculum comprises grades 1 to 8 and high school grades are 9 to 12, grade 12 being the junior matriculation grade. The majority of the Island's schools are of one room and it is common for rural schools to teach grades 1 to 10, with grades 11 and 12 available in the larger centres. One junior high school has been established recently. There are a few private Roman Catholic schools in the Province.

Trade training is given in the Provincial Vocational School and two private business colleges provide commercial courses. The Government operates the Prince of Wales College and Normal School in Charlottetown, offering junior college and teacher-training courses, and both high school and university programs are available at St. Dunstan's College (Roman Catholic). A Director of Adult Education on the staff of the Department of Education organizes programs throughout the Province.

Nova Scotia.—The public school curriculum of Nova Scotia is in three divisions: elementary school (primary grade and grades 1 to 6), junior high school (grades 7 to 9) and senior high school (grades 10 to 12). The junior matriculation level is reached at the end of grade 11 and the senior matriculation level at the end of grade 12. Senior high schools provide commercial courses as well as a general academic course.

In recent years, numbers of rural and regional high schools, commonly offering grades 7 to 12, have been created to provide secondary school facilities outside the urban centres. The number of pupils studying by correspondence, though a relatively small proportion of the total, has increased in recent years because of the shortage of qualified teachers. There are about a score of private elementary and secondary schools in the Province, almost all of them Roman Catholic.

On Jan. 1, 1956, significant legislation gave effect to recommendations of a Royal Commission on Public School Finance in Nova Scotia. It was designed to establish a "foundation program" in all public elementary and secondary schools, to make more equitable the basis of taxation for school purposes and to distribute provincial support in relation to need.

Vocational training is provided under the auspices of the Department of Education in two county vocational high schools, in evening vocational classes in more than 40 centres, by correspondence courses, and in eight coal-mining schools, a land survey school, a marine navigation school, a marine engineering school, and a college of art. The Department of Labour operates three Canadian Vocational Training Centres. The Nova Scotia College of Agriculture, operated under the Department of Agriculture, gives short courses in agriculture. Fisheries schools are operated by the Department of Trade and Industry. In 1955 there were seven private business colleges and nine private correspondence schools registered under the Trade Schools Regulations Act, which is administered by the Department of Education.

Until 1955, elementary school teachers were trained only in the Nova Scotia Normal College and secondary school teachers in the universities. Since that year, however, Acadia University, Dalhousie University, Mount Allison University and St. Francis Xavier University provide teacher-training to students who have completed two or three years of college studies, as well as to those who have university degrees, thus preparing teachers for the elementary and junior high schools.

Nova Scotia has 14 institutions of higher education: Acadia University, Collège Sainte-Anne, Convent of the Sacred Heart (junior college), Dalhousie University, University of King's College, Maritime College of Pharmacy, Pine Hill Divinity Hall, Holy Heart Seminary, Maritime School of Social Work, Mount Saint Vincent College, Nova Scotia Agricultural College (junior college), Nova Scotia Technical College, St. Francis Xavier University (including Mount Saint Bernard College and Xavier Junior College), and St. Mary's University.

With the assistance of the Adult Education Division of the Department of Education, there is a province-wide program for adults which includes folk schools, evening classes, short courses and cultural services, with special emphasis on economic development. A number of the universities offer extension services.

New Brunswick.—New Brunswick has a 12-grade public school system: elementary school (grades 1 to 8) and high school (grades 9 to 12). Grade 12 is the junior matriculation grade. In two urban high schools a thirteenth grade is taught which follows

the program of studies of the first-year course at the University of New Brunswick, whose examinations the pupils write. There are somewhat fewer than twenty private academic schools in the Province, most of them Roman Catholic.

In recent years facilities for secondary education have been increased by the construction of regional and rural high schools. In many of these and in urban composite high schools, there are several choices of curricula—academic, commercial, industrial, home economics and agriculture.

Vocational education is provided also in two vocational schools, in the New Brunswick Technical Institute at Moncton, in evening classes in many centres, in the Maritime Forest Ranger School, in four agricultural schools (two operated by the Department of Agriculture and two by the Department of Education), and in private business colleges of which there are about half a dozen.

Elementary school teachers are trained in the New Brunswick Teachers' College and in the normal school of the Université Saint-Joseph. In addition, there are normal school courses for men and women in six Roman Catholic educational institutions. Secondary school teachers are trained in five universities, and for industrial-course teachers there is a training program at the New Brunswick Technical Institute. A recent development in teacher education was the establishment in 1955, at the University of New Brunswick and at least one other university, of a course leading, in three years beyond the year at Teachers' College, to a Bachelor of Elementary Education degree.

New Brunswick has six universities and colleges: Mount Allison University, University of New Brunswick, Université de Sacré-Coeur, Université Saint-Joseph (including Collège de l'Assomption and Collège Notre-Dame d'Acadie), Université Saint-Louis (including Collège Maillet), and St. Thomas College.

Quebec.—In Quebec, education is represented in the provincial Cabinet by the Provincial Secretary rather than by a Minister of Education. Public elementary and secondary schools are controlled by a Council of Education which is made up of two committees—one supervising Catholic education and the other supervising Protestant education. The Department of Education is headed by a Superintendent and two Deputy Ministers—one for Catholic and the other for Protestant schools—and Catholic and Protestant school systems exist side by side, each relatively independent of the other.

Private or independent schools play a much more prominent role in Québec than in other provinces. Chief among these are the classical colleges, which number nearly a hundred. Affiliated to the French-language universities (Laval, Montreal and Sherbrooke), they offer an eight-year course, entered after completion of elementary school and leading in two four-year stages, secondary and college, to the baccalaureate degree.

The French public school curriculum was recently revised to the English pattern. In other words, a seven-year elementary school and a four- or five-year secondary school was substituted for a three-stage primary school (elementary, 1 to 7; complementary, 8 and 9; superior, 10 to 12). A classical course has also been introduced in the public secondary school, equivalent to the first four years of the classical college curriculum. The junior matriculation level in both Catholic and Protestant schools is at the end of the eleventh year.

Public vocational education is highly developed in Quebec, chiefly under the Department of Social Welfare and Youth which operates a network of arts and trades schools, technical schools, and institutes. Teacher training, too, has undergone radical revision within the past few years. The normal schools raised the entrance requirement to completion of the eleventh year, instituted one-, two- and four-year courses, and related their programs to university requirements so that a degree in pedagogy may be earned in the four-year course.

In addition to the three French-language universities mentioned above, there is a Canadian Services College—Collège Militaire Royal de Saint-Jean—and three English-language institutions of higher education: McGill University (including Macdonald College), Sir George Williams College and Bishop's University.

Adult education forms part of the program of a host of governmental and voluntary bodies, many of the latter receiving support from the Province.

Ontario.—Ontario has a thirteen-grade public school program, the junior matriculation level being reached at the end of grade 12, and senior matriculation at the end of grade 13. Commonly, elementary schools comprise grades 1 to 8, but some teach up to grade 10 and many have kindergarten classes (for four-year-olds) and kindergarten-primary classes (for five-year-olds). Secondary schools include grades 9 to 13, offering several curricula: general (academic), art, commercial, home economics and industrial.

Elementary schools under control of the Department of Education may be public or separate, all but three of the latter being Roman Catholic. A considerable number of the Roman Catholic separate schools in French-language communities are bilingual and are staffed by teachers trained in both French and English. Secondary schools under departmental control are all public and are of five main types: collegiate institutes, high schools, continuation schools, vocational schools and composite schools. A relatively small number of pupils attend private schools, most of which are inspected by the Department of Education and the students at which are prepared for Departmental certificates.

Most vocational education at the secondary level is provided in the public secondary schools, although there is a Provincial Institute of Trades (in Toronto), and there are two agricultural schools under the Department of Agriculture, many private business colleges and a number of private trade schools. The Department of Education also operates four technical institutes with most courses at the post-secondary level.

Teachers for the elementary schools are trained at teachers' colleges operated by the Department of Education, in a one-year course following completion of grade 13 or a two-year course following grade 12. Secondary school teachers receive a one-year period of training at the Ontario College of Education, University of Toronto, after university graduation. Vocational school teachers are also trained at the Ontario College of Education.

In addition to a number of independent junior colleges and professional training schools, the Province has nine institutions of higher learning: University of Ottawa, Queen's University, Royal Military College, University of Toronto, McMaster University, University of Western Ontario, Assumption University of Windsor, Carleton University and Collège du Sacré-Cœur. All but the last two have federated or affiliated colleges.

A Community Programmes Branch of the Department of Education provides assistance to informal adult education and recreation programs, public secondary schools sponsor night classes, the universities offer extension services and many voluntary agencies operate in the field of adult education.

Manitoba.—The curriculum of Manitoba's public schools is organized in three stages: elementary (kindergarten and grades 1 to 6), junior high school (grades 7 to 9) and senior high school (grades 10 to 12). The junior matriculation level is reached at the end of grade 11, and the senior at the end of grade 12. In the larger centres there are schools of these three types while in rural areas most or all of the grades are often taught in one school. There has been little consolidation in Manitoba and many small schools still exist.

In the city of Winnipeg one of the eight senior high schools is vocational. There are composite high schools in other centres, and vocational as well as academic courses are available in a number of schools. No provision is made for separate schools in the public system but there are private or parochial schools which are inspected by officials of the Department of Education.

In addition to the vocational courses provided in the senior high schools, the Department of Education operates a trade school (Manitoba Technical Institute) in Winnipeg, and the Department of Agriculture has an Agriculture and Home-making School in Brandon.

Elementary school teachers are trained at the Provincial Normal School, Tuxedo, and at the Normal School of Brandon College—in a one-year course following grade 12. Secondary school teachers are prepared by the University of Manitoba and by Brandon College in a post-graduation year. Summer courses at the Manitoba Technical Institute are provided for the training of vocational instructors.

Higher education is provided by the University of Manitoba, with which are affiliated Brandon College, the Manitoba Law School, Collège de Saint-Boniface, St. John's College, St. Paul's College and United College, and by the Grand Séminaire de Saint-Boniface an affiliate of the University of Montreal. Direction of the provincial adult education program and the University of Manitoba's extension services is fused in the office of the Director of University Extension and Adult Education. Agricultural extension is under the Department of Agriculture.

Saskatchewan.—The Saskatchewan school curriculum is divided into two stages: elementary (kindergarten and grades 1 to 8) and high school (grades 9 to 12). The senior matriculation level is at the end of grade 12 and there is no leaving certificate awarded at the junior matriculation level (end of grade 11). Both public and separate (chiefly Roman Catholic) schools are under the control of the provincial Department of Education which also inspects all private elementary and most private secondary schools.

Three technical schools and an increasing number of composite high schools are included in the provincial system. A Canadian Vocational Training centre is located in Saskatoon. A government correspondence school serves a growing number of students, offering courses at all grade levels and in vocational subjects. Consolidation of school districts is proceeding in Saskatchewan but there are still many small rural schools in operation. Special attention was given to the problems of rural schooling by a provincial Royal Commission on Agriculture and Rural Life whose report on *Rural Education* was published in 1956.

The elementary school teachers of Saskatchewan are trained in a one-year course, following grade 12, at two Saskatchewan Teachers' Colleges (Moose Jaw and Saskatoon), or at the College of Education of the University of Saskatchewan which also trains secondary school teachers. A recent move to relate more closely the teachers' colleges and the University made it possible for graduates of the former to gain a year's credit for their training when entering the University for the four-year Bachelor of Education course.

The University of Saskatchewan (including Regina College) and its ten affiliated colleges dominate the higher educational scene, but there are also two independent Roman Catholic theological seminaries and four colleges affiliated with the University of Ottawa.

There is an active Adult Education Division in the Department of Education and a flourishing program of rural extension centred in the College of Agriculture of the University.

Alberta.—Like Saskatchewan, Alberta has a 12-grade system ending at the senior matriculation level, and divided into public and separate schools, with, in addition, departmental inspection of private schools. The curriculum is divided into three stages: elementary school (grades 1 to 6), junior high school (grades 7 to 9) and senior high school (grades 10 to 12). Because of crowding in the schools there has been no kindergarten in the public system since 1954, but private kindergartens do operate.

A major project was completed in 1954 when the Coterminus Boundary Commission submitted its final report. For most of the settled parts of the Province, the Commission's work resulted in identical boundaries for rural school and municipal administrative areas. Centralization of school facilities has been a significant aspect of school administration in recent years, resulting in improved facilities, better qualified teachers and greater retention of pupils in high school grades.

Vocational education is provided in public high schools, many of them of the composite type; in the Provincial Institute of Technology and Art at Calgary; at three Canadian Vocational Training centres—one for trade training, one for nursing aide training and one for commercial training; at three agricultural and home economics schools operated by the Department of Agriculture; and in private trade schools and business colleges.

All teacher training in Alberta is conducted by the University of Alberta at Edmonton and a branch of that institution at Calgary. Minimum training of elementary school teachers is given in a one-year course following grade 12 while secondary school teachers must have a university degree. Since 1954, Alberta, like a number of other provinces, has had an emergency teacher-training program consisting of summer courses with intervening periods of teaching during the school year.

Higher education is concentrated in the University of Alberta, including its Calgary branch and three affiliated colleges. There is an independent Roman Catholic seminary affiliated with the University of Ottawa, and also two independent junior colleges.

The University of Alberta's extension service is province-wide and the Department of Agriculture also conducts an active extension program.

British Columbia.—The basic divisions in the public school system of British Columbia are: elementary school (kindergarten and grades 1 to 6), junior high school (grades 7 to 9) and senior high school (grades 10 to 13). There are, however, several combination patterns, e.g., elementary-junior high school, elementary-senior high school, junior-senior high school. The junior matriculation level is reached at the end of grade 12 and the senior matriculation level at the end of grade 13. No provision is made for the public support of separate schools but there are private schools in the Province serving minority groups. Consolidation of schools has progressed far in British Columbia.

Public vocational schools include the Vancouver Technical School, Vocational Institute and the Vancouver School of Art, all at the secondary level, two provincial trade schools and a number of private trade schools and business colleges.

Until 1956 elementary school teachers were trained in two provincial normal schools and secondary school teachers in the University of British Columbia. In that year all teacher training was integrated in a College of Education created in the University.

The chief institution of higher education is the provincial University of British Columbia, to which are affiliated Victoria College (a junior college) and four theological schools, two of which are recent establishments. There are, in addition, a Canadian Services College at Royal Roads and Notre Dame College at Nelson which is a junior college affiliated to Gonzaga University, Spokane, Washington.

Under the jurisdiction of the provincial Department of Education there are night classes, vocational courses, correspondence courses and community program services for adults, and the University operates a province-wide system of extension services.

Yukon Territory.—The Government of Yukon Territory has its own Department of Education, headed by a Superintendent of Schools at Whitehorse. It operates 14 public schools and two Roman Catholic separate schools. In addition, under the jurisdiction of the Indian Affairs Branch of the Department of Citizenship and Immigration, there are four Indian schools in the Territory proper and another in nearby northern British Columbia.

Northwest Territories.—The Federal Department of Northern Affairs and National Resources operates schools in the Territories for Eskimos and Indians, often with the co-operation of the Anglican and Roman Catholic churches. On behalf of (and at the expense of) the Territorial Government it also operates schools for white and mixed-blood children and, in addition, is responsible for the education of Eskimos in northern Quebec.

Curricula in the schools of the Northwest Territories is adapted to the special needs and the way of life of the people. Recent innovations include provision for vocational training and the education of adults, and of correspondence courses for those unable to

receive classroom instruction. To accommodate the children of nomadic Eskimos and Indians, denominational hostels are being built at federal expense in certain of the centres in which there are federal day schools. They are then operated by the Anglican or Roman Catholic churches.

Federal Roles.—In addition to the responsibility of the Department of Northern Affairs and National Resources for education in the Northwest Territories, the Indian Affairs Branch of the Department of Citizenship and Immigration, in co-operation with the provinces, administers Indian schools throughout Canada; the Department of National Defence, also in co-operation with the provinces, operates schools on military stations in Canada and in Europe and operates three Canadian Services Colleges in Canada; the Department of Justice provides schooling in the penitentiaries; and the Department of Veterans Affairs has a program of education in veterans hospitals as well as correspondence courses for veterans, federal civil servants and inmates of penitentiaries. Vocational training in the provinces is assisted by the Training Branch of the Department of Labour.

Higher education is aided by federal grants to universities and by the provision of fellowship, scholarship, bursary and loan funds. Research grants are made by a number of departments and agencies of the Federal Government. In the field of adult education, the Federal Government's participation is through such channels as the newly created Canada Council for the Encouragement of the Arts, Letters, Humanities and Social Sciences, the Canadian Citizenship Branch of the Department of Citizenship and Immigration, the Canadian Broadcasting Corporation, the National Film Board, the National Museum and the National Gallery. These phases of education are dealt with in Part II of this Chapter, pp. 363-373.

Section 2.—Statistics of Schools, Universities and Colleges

Educational institutions in Canada are herein grouped under four captions: provincially controlled schools, privately controlled schools, universities and colleges, and federal schools in the Territories and for Indians. The first three groups are dealt with in this Section, while information on Indian schools, with the exception of enrolment figures shown in Table 2, is included with the general material on the Indians of Canada given in the Population Chapter, at pp. 146-149.

The provincially controlled schools, both public and separate, are most numerous and account for about 90 p.c. of the total enrolment shown in Table 2. These schools are financed essentially through direct taxes on property (the amount fixed by local school authorities) and provincial grants. In addition there is a much smaller number of private schools in all provinces (i.e., schools that are not conducted by publicly elected or publicly appointed boards and are not financed out of public money). At the higher education level considerable provincial support is given to the six provincial universities and one or more colleges in each of the other provinces and some provincial aid is given to most of the other 16 private universities and 163 colleges giving degree credit courses. In addition all degree-granting universities and colleges are eligible for grants from the Federal Government and these are paid to all except those in the Province of Quebec.

Agricultural colleges and schools, their location, courses offered and other pertinent information are listed in Chapter IX on Agriculture.

Direct control and operation of the public schools is in the hands of boards of school trustees which operate under provincial school law and whose members are elected or appointed usually for terms of two or three years. In most provinces in addition to the unit boards in charge of a single-room rural school, and village, town or city school systems, there are unit boards in charge of larger administrative units. These are usually formed of the rural and sometimes the urban schools in a county or inspectorate, the local boards often retaining ancillary functions. Table 1 gives the number of active boards by province whether these are in charge of local areas or larger units, the number of official trustees appointed in lieu of boards and the number of board members appointed and elected.

1.—Active School Boards and Official Trustees by Province 1953

| Province | Unit Boards | Local Boards within Units | Inde- pendent Local Boards | Total Boards | Official Trustees ¹ | Number of Trustees ² | |
|---------------------------|----------------|------------------------------------|-------------------------------------|-----------------|-----------------------------------|------------------------------------|---------------|
| | | | | | | Appointed | Elected |
| | No. | No. | No. | No. | No. | No. | No. |
| Newfoundland..... | — | — | 308 | 308 | — | 1,850 | — |
| Prince Edward Island..... | 1 | — | 449 | 450 | — | 8 | 1,347 |
| Nova Scotia..... | 24 | 1,685 | 53 | 1,762 | — | 455 | 5,055 |
| New Brunswick..... | 14 | 735 | 78 | 827 | 2 | 596 | 2,381 |
| Quebec— | | | | | | | |
| Roman Catholic..... | — | — | 1,615 | 1,615 | — | 8 | 9,174 |
| Protestant..... | 9 | 61 | 209 | 279 | — | 24 | 9,223 |
| Ontario..... | 781 | 6 | 3,148 | 3,935 | ^a | 13,531 | 1,984 |
| Manitoba..... | 17 | — | 1,615 | 1,632 | 207 | 25 | 5,578 |
| Saskatchewan..... | 109 | 4,802 | 465 | 5,376 | 276 | 234 | 14,273 |
| Alberta..... | 59 | 3,918 | 138 | 4,115 | — | — | 12,622 |
| British Columbia..... | 81 | — | 5 | 86 | 16 | 31 | 536 |
| Totals..... | 1,095 | 11,207 | 8,083 | 20,385 | 501 | 16,762 | 62,173 |

¹ Usually the school inspector, delegated to act where a board cannot be elected.
² Estimated where necessary.

^a Included with independent local boards.

Subsection 1.—Provincially Controlled Elementary and Secondary Schools*

Enrolment and Attendance.—At the elementary school level, enrolments have been increasing steadily in the postwar period and recent birth registrations and immigration figures indicate that this trend will continue.

Other factors responsible for increased enrolment include: the introduction of family allowances in 1945 which improved attendance and kept greater numbers of pupils in school to the minimum age limit; increased attention to guidance and other means of keeping pupils in school; greater appreciation of the importance of completing secondary education; increased transportation facilities provided at public expense; the erection of dormitories in certain provinces; adoption of larger units of administration and the establishment of junior high schools and of composite schools to serve rural areas particularly.

Enrolment in provincially controlled schools for the latest school year available is given in Table 2 and average daily attendance is shown in Table 3.

* Academic and vocational day schools only.

2.—Enrolment in Educational Institutions classified by Type of School and by Province, School Year 1953-54

| Type of School | New- foundland | Prince Edward Island | Nova Scotia | New Brun- swick | Quebec | Ontario |
|--|-------------------|----------------------------|----------------|-----------------------|---------------------|------------------|
| | No. | No. | No. | No. | No. | No. |
| Provincially Controlled Schools— | | | | | | |
| Ordinary and technical day schools..... | 92,364 | 20,368 | 146,388 | 117,381 | 758,066 | 933,104 |
| Evening schools..... | 1,253 | 349 | 4,632 | 2,872 | 77,000 | 78,338 |
| Correspondence schools..... | 41 | 66 | 3,130 | 234 | 3,698 | 1,982 |
| Special schools ¹ | — | — | 319 | — | 862 | 566 |
| Teacher-training schools— | | | | | | |
| Full-time ² | ^a | 46 | 219 | 252 | 5,935 | 1,732 |
| Accelerated courses ³ | 414 | — | 46 | 314 | — | 1,079 |
| Privately Controlled Schools— | | | | | | |
| Ordinary day schools..... | — | 1,088 | 5,161 | 1,683 | 67,293 | 17,837 |
| Business training schools— | | | | | | |
| Day classes..... | — | 81 | 470 | 471 | 6,553 ⁴ | 5,642 |
| Evening classes..... | — | 42 | 294 | 444 | 4,977 ⁴ | 6,013 |
| Universities and Colleges— | | | | | | |
| Preparatory courses..... | — | 491 | 418 | 1,101 | 20,438 ⁵ | 3,168 |
| Courses of university standard..... | 911 | 242 | 4,934 | 2,925 | 29,418 ⁵ | 31,367 |
| Other courses at university..... | — | 43 | 374 | 812 | 18,580 ⁵ | 13,783 |
| Indian schools and schools in the Territories..... | — | 47 | 627 | 400 | 2,444 | 6,566 |
| Totals..... | 94,983 | 22,863 | 167,012 | 128,889 | 995,204 | 1,101,177 |
| Population (June 1, 1954 estimate)..... | 395,000 | 101,000 | 673,000 | 540,000 | 4,388,000 | 5,115,000 |

For footnotes, see end of table, p. 352.

2.—Enrolment in Educational Institutions classified by Type of School and by Province, School Year 1953-54—concluded

| Type of School | Manitoba | Saskatchewan | Alberta | British Columbia | Yukon and N.W.T. | Canada |
|--|----------------|----------------|----------------|------------------|------------------|------------------|
| | No. | No. | No. | No. | No. | No. |
| Provincially Controlled Schools— | | | | | | |
| Ordinary and technical day schools..... | 146,619 | 170,415 | 201,420 | 210,744 | — | 2,796,809 |
| Evening schools..... | 5,863 | 5,638 | 6,525 | 19,969 | — | 202,439 |
| Correspondence schools..... | 898 | 1,681 | 4,397 | 6,801 | — | 22,928 |
| Special schools ¹ | 28 | 165 | — | 156 | — | 2,096 |
| Teacher-training schools— | | | | | | |
| Full-time ² | 437 | 586 | 3 | 510 | — | 9,717 |
| Accelerated courses ² | 369 | — | 133 | — | — | 2,355 |
| Privately Controlled Schools— | | | | | | |
| Ordinary day schools..... | 7,238 | 3,006 | 4,412 | 7,889 | — | 115,607 |
| Business training schools— | | | | | | |
| Day classes..... | 1,337 | 870 | 1,477 | 1,692 | — | 18,593 |
| Evening classes..... | 2,355 | 619 | 2,022 | 1,753 | — | 18,519 |
| Universities and Colleges— | | | | | | |
| Preparatory courses..... | 994 | 1,321 | 790 | — | — | 28,721 |
| Courses of university standard..... | 5,625 | 6,041 | 5,403 | 7,914 | — | 94,780 |
| Other courses at university..... | 2,616 | 155 | 1,416 | 5,967 | — | 43,746 |
| Indian schools and schools in the Territories..... | 4,045 | 3,791 | 3,697 | 5,793 | 3,837 | 31,247 |
| Totals..... | 178,424 | 194,288 | 231,692 | 269,188 | 3,837 | 3,387,557 |
| Population (June 1, 1954 estimate)..... | 823,000 | 873,000 | 1,057,000 | 1,295,000 | 27,000 | 15,287,000 |

¹ Schools for the blind and deaf; these are boarding schools and many of the pupils are from provinces other than the one in which the school is situated. ² Courses for elementary teachers only; those for secondary teachers are included in university enrolment.

³ Included in university enrolment.

⁴ Estimated.

3.—Average Daily Attendance in Provincially Controlled Schools by Province, School Years Ended 1945-54

NOTE.—Comparable figures for earlier years will be found in previous editions of the Year Book, beginning with the 1932 edition.

| Year | Nfld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Total |
|-----------|--------|--------|---------|---------|----------------------|---------|---------|---------|---------|---------|------------------------|
| | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| 1945..... | ... | 12,984 | 93,831 | 70,746 | 523,741 | 571,625 | 100,971 | 135,336 | 130,095 | 107,599 | 1,746,928 |
| 1946..... | ... | 14,321 | 99,367 | 74,529 | 529,613 | 590,801 | 104,666 | 138,267 | 133,162 | 114,590 | 1,799,316 |
| 1947..... | ... | 14,850 | 102,099 | 78,129 | 533,765 | 597,400 | 103,739 | 135,038 | 131,011 | 121,334 | 1,817,365 |
| 1948..... | ... | 14,774 | 103,858 | 81,057 | 545,841 ¹ | 613,586 | 103,744 | 135,578 | 133,410 | 129,859 | 1,861,707 ¹ |
| 1949..... | 59,520 | 14,727 | 107,914 | 82,168 | 566,544 ¹ | 638,733 | 105,240 | 135,872 | 136,690 | 138,941 | 1,986,349 ¹ |
| 1950..... | 66,727 | 15,043 | 111,818 | 87,158 | 587,619 ¹ | 660,249 | 106,008 | 136,991 | 146,388 | 147,584 | 2,065,585 ¹ |
| 1951..... | 67,638 | 15,310 | 114,285 | 84,923 | 605,955 ¹ | 674,901 | 112,749 | 137,606 | 150,013 | 154,077 | 2,117,457 ¹ |
| 1952..... | 71,064 | 15,343 | 117,349 | 87,720 | 636,966 ¹ | 710,227 | 117,774 | 139,744 | 163,454 | 163,364 | 2,223,005 ¹ |
| 1953..... | 77,040 | 16,212 | 126,650 | 95,771 | 671,165 ¹ | 775,319 | 124,514 | 142,190 | 173,954 | 176,138 | 2,378,953 ¹ |
| 1954..... | 80,841 | 16,840 | 129,832 | 100,740 | 718,010 ¹ | 857,514 | 132,266 | 149,041 | 186,496 | 191,203 | 2,562,783 ¹ |

¹ Estimated.

Grade Level.—Pupils in the provincially controlled schools of all provinces are distributed by grade level in Table 4.

4.—Grade Level of Pupils Enrolled in Provincially Controlled Schools by Province, School Year 1953-54

| Grade | Nfld. | P.E.I. | N.S. | N.B. | Que. | Ont. ¹ | Man. | Sask. | Alta. | B.C. |
|-----------------------|---------------|------------------|----------------|----------------|----------------|-------------------|----------------|----------------|----------------|----------------|
| | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| Kindergarten..... | 306 | 138 | 14,639 | — | 7,023 | 60,904 | 4,451 | 2,993 | — | 1,573 |
| Grade 1..... | 19,104 | 2,999 | 19,527 | 18,233 | 125,601 | 115,059 | 20,906 | 22,390 | 27,939 | 28,094 |
| Grade 2..... | 11,866 | 2,553 | 15,260 | 15,053 | 116,101 | 108,666 | 17,508 | 19,398 | 23,464 | 23,874 |
| Grade 3..... | 10,243 | 2,204 | 13,874 | 12,954 | 113,106 | 95,881 | 15,388 | 17,544 | 20,678 | 20,840 |
| Grade 4..... | 9,867 | 2,046 | 13,545 | 12,882 | 107,006 | 86,035 | 14,812 | 16,722 | 20,326 | 20,533 |
| Grade 5..... | 9,453 | 2,109 | 13,877 | 12,661 | 98,813 | 82,256 | 14,753 | 16,827 | 20,037 | 20,260 |
| Grade 6..... | 8,342 | 1,866 | 13,086 | 11,228 | 85,709 | 80,971 | 13,415 | 15,587 | 18,555 | 19,337 |
| Grade 7..... | 6,943 | 1,801 | 11,852 | 10,001 | 65,119 | 73,395 | 12,556 | 15,262 | 17,408 | 18,205 |
| Grade 8..... | 5,422 | 1,739 | 9,901 | 8,134 | 39,190 | 64,680 | 10,621 | 14,161 | 15,461 | 16,210 |
| Grade 9..... | 4,917 | 1,288 | 8,120 | 5,519 | 27,334 | 58,805 | 8,725 | 10,782 | 13,386 | 14,055 |
| Grade 10..... | 3,245 | 1,008 | 6,242 | 4,395 | 15,806 | 43,127 | 6,830 | 8,063 | 9,919 | 11,750 |
| Grade 11..... | 2,201 | 444 ² | 4,224 | 2,926 | 9,656 | 26,634 | 4,858 | 5,924 | 7,902 | 8,572 |
| Grade 12..... | 47 | 173 ² | 1,521 | 1,924 | 3,380 | 20,199 | 1,522 | 4,218 | 6,345 | 6,340 |
| Grade 13..... | — | — | — | 36 | — | 9,775 | — | — | — | 770 |
| Junior Auxiliary..... | — | — | 498 | 199 | 2,347 | 5,471 | 274 | 544 | — | 177 |
| Senior Auxiliary..... | — | — | 222 | — | — | 1,246 | — | — | — | — |
| Special..... | 408 | — | — | 476 | 8,841 | — | — | — | — | 154 |
| Unclassified..... | — | — | — | 760 | 267 | — | — | — | — | — |
| Totals..... | 92,364 | 20,368 | 146,388 | 117,381 | 825,299 | 933,104 | 146,619 | 170,415 | 201,420 | 210,744 |

¹ Province reports totals only for grades 1 to 3 and 4 to 6; numbers for individual grades are estimated.

² Includes 179 grade 11 students and 154 grade 12 students enrolled in Prince of Wales College.

Teaching Staffs.—In 1954-55 the teaching staffs of provincially controlled elementary and secondary schools consisted of 28,777 men and 79,264 women, a total of 108,041. Omitting Quebec, for which comparable data are not available, 38 p.c. of the teachers were in cities, 31 p.c. were in towns and villages, 20 p.c. were in one-room rural schools and the remaining 11 p.c. in schools of two or more rooms outside of urban centres. Again omitting Quebec where 36 p.c. of the teachers were members of religious orders, approximately 30 p.c. of the women teachers were married. Of the total number of teachers in the nine provinces (exclusive of Quebec), about 8 p.c. had received little or no training. At least 15 p.c. of the teachers leave the profession each year.

5.—Teachers in Provincially Controlled Schools classified according to Salary, by Province, School Year 1954-55

NOTE.—Comparable figures for Quebec are not available.

| Salary | Nfld. | P.E.I. | N.S. | N.B. | Ont. | Man. | Sask. | Alta. | B.C. |
|-------------------------|--------------|------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|
| | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| Below \$1,025..... | 504 | 26 | 373 | 389 | 239 | — | 1 | 4 | — |
| \$1,025 - 1,524..... | 1,250 | 389 | 1,183 | 630 | 1,059 | 194 | 17 | 61 | — |
| \$1,525 - 2,024..... | 105 | 228 | 1,391 | 1,442 | 2,059 | 308 | 272 | 173 | 55 |
| \$2,025 - 2,524..... | 237 | 65 | 922 | 764 | 6,894 | 2,272 | 2,494 | 927 | 1,051 |
| \$2,525 - 3,024..... | 557 | 29 | 596 | 517 | 6,542 | 1,103 | 1,995 | 1,507 | 1,386 |
| \$3,025 - 3,524..... | 195 | 9 | 301 | 325 | 3,852 | 691 | 1,116 | 484 | 1,200 |
| \$3,525 - 4,024..... | 123 | 2 | 209 | 127 | 3,320 | 350 | 484 | 846 | 1,331 |
| \$4,025 - 5,024..... | 78 | 2 | 112 | 168 | 5,222 | 415 | 612 | 949 | 1,706 |
| \$5,025 - 6,024..... | — | 1 | 10 | 20 | 2,774 | 194 | 179 | 309 | 1,049 |
| \$6,025 - 7,024..... | — | — | — | 3 | 936 | 40 | 10 | 54 | 189 |
| \$7,025 and over..... | — | — | — | — | 162 | 5 | 1 | 1 | 48 |
| Unspecified..... | — | — | — | — | — | 1 | — | 1,205 | 13 |
| Totals..... | 3,049 | 751 | 5,102 | 4,385 | 33,059 | 5,573 | 7,181 | 7,714 | 8,028 |
| Median salaries..... \$ | 1,407 | 1,494 | 1,874 | 1,926 | 3,005 | 2,530 | 2,818 | 3,096 | 3,646 |

Financial Support.—The public elementary and secondary schools are financed almost wholly from money derived from local taxation and provincial grants. Fees for elementary schooling may be charged in Quebec. In a few of the other provinces nominal fees are charged for the higher secondary grades; in Newfoundland there is little local taxation and fees are generally charged.

In general, school boards submit their budgets to the local municipal councils which levy for and collect the required amounts. However, school boards in Quebec and a few in other provinces have the power to levy and collect taxes for school purposes. Assessment, on which taxes for school purposes are levied, is the total valuation of land and buildings and sometimes improvements, personal property or business income are added in. Steps have been taken by several provinces to equalize real property assessment over large areas or even the whole province.

Each province has its own method of apportioning funds to local school boards. Grants are of two types. (1) The basic grant may be calculated on a minimum cost determined by an amount per classroom, salary and qualifications of the teacher, average attendance, etc. All provinces make some attempt to equalize educational opportunity through basing grants in part on some indication of need. (2) Special grants are paid to assist with transportation, music, arts and crafts, special classes, equipment, building costs, night classes, etc. They are largest in Quebec where there is marked emphasis on training for home industries, arts and crafts.

Newfoundland schools are largely supported from provincial funds. Tuition fees may be charged by school boards and by the boards of the colleges (actually schools of fairly high standard giving elementary and high school instruction) in the city of St. John's; and additional fees may be charged for fuel or janitor service where these are not provided by pupils or their families. There has been no local taxation until very recently and it now exists only in a few of the larger centres. The Province pays teachers according to experience and qualifications and some school boards supplement this amount. The Province also makes annual grants for plant maintenance and repairs and for new construction.

Table 6 presents a comparative statement of the finances of school boards operating provincially controlled schools in so far as this information is available.

6.—Income of School Boards of Publicly Controlled Elementary and Secondary Schools by Province, Fiscal Years Ended 1950-54

NOTE.—The receipts shown in this table do not include any amounts raised by loans or the sale of bonds or debentures as all revenue of this nature must be repaid ultimately with money raised by local taxation. Figures from 1914 are given in the corresponding table of previous Year Books beginning with the 1936 edition.

| Province and Year | Income from— | | | Total Current Revenue Recorded | Debenture Indebtedness ¹ |
|-------------------------------|------------------------------|----------------|------------------------|--------------------------------|-------------------------------------|
| | Provincial Government Grants | Local Taxation | Other Sources | | |
| | \$ | \$ | \$ | \$ | \$ |
| Newfoundland.....1950 | 3,430,267 | — | 1,078,807 ^c | 4,509,074 ^c | .. |
| 1951 | 3,557,275 | — | 1,090,408 ^c | 4,647,683 ^c | .. |
| 1952 | 4,141,417 ^c | — | 1,338,336 | 5,479,753 ^c | .. |
| 1953 | 4,839,522 | — | 1,630,213 | 6,469,735 | .. |
| 1954 | 5,151,201 | — | 1,249,491 | 6,400,692 | .. |
| Prince Edward Island.....1950 | 570,908 | 488,714 | 62,020 | 1,121,642 | .. |
| 1951 | 626,067 | 538,504 | 127,255 | 1,291,826 | .. |
| 1952 | 641,328 | 600,546 | 71,619 | 1,313,493 | .. |
| 1953 | 752,294 | 683,046 | 61,699 | 1,497,039 | .. |
| 1954 | 797,779 | 703,018 | 57,942 | 1,558,739 | .. |

¹ Net figures, after deduction of sinking funds.

6.—Income of School Boards of Publicly Controlled Elementary and Secondary Schools by Province, Fiscal Years Ended 1950-54—concluded

| Province and Year | Income from— | | | Total Current Revenue Recorded | Debtenture Indebtedness ¹ |
|---------------------------|------------------------------|-------------------------|------------------------|--------------------------------|--------------------------------------|
| | Provincial Government Grants | Local Taxation | Other Sources | | |
| | \$ | \$ | \$ | \$ | \$ |
| Nova Scotia.....1950 | 5,809,023 ^r | 5,975,035 ^r | .. | 11,784,058 ^r | .. |
| 1951 | 5,598,544 ^r | 6,226,050 ^r | .. | 11,824,594 ^r | .. |
| 1952 | 5,878,774 ^r | 7,372,292 ^r | .. | 13,251,066 ^r | .. |
| 1953 | 6,961,281 | 8,661,063 | 208,892 | 15,731,236 | .. |
| 1954 | 6,807,246 | 9,591,684 | 219,638 | 16,618,568 | .. |
| New Brunswick.....1950 | 4,803,316 ^r | 6,660,199 ^r | .. | 11,463,515 ^r | .. |
| 1951 | 4,559,370 ^r | 7,024,416 ^r | .. | 11,583,786 ^r | .. |
| 1952 | 4,636,609 ^r | 7,615,277 ^r | .. | 12,251,886 ^r | .. |
| 1953 | 6,586,580 | 8,288,180 | .. | 14,874,760 | .. |
| 1954 | 6,904,003 | 9,382,336 | 726,423 | 17,012,762 | .. |
| Quebec.....1950 | .. | 46,571,000 ^r | 2,311,000 ^r | 48,882,000 ^r | .. |
| 1951 | 15,910,137 | 50,579,638 | 2,479,097 | 68,968,872 | 54,138,073 |
| 1952 | 20,735,000 | 57,506,000 | 2,940,000 | 81,181,000 | 85,171,000 |
| 1953 | 25,004,000 | 64,979,000 | 3,448,000 | 93,431,000 | 108,894,155 |
| 1954 | 27,422,000 | 71,689,000 | 4,024,000 | 103,135,000 | 124,164,000 |
| Ontario.....1950 | 42,661,144 | 73,195,577 | 2,906,755 | 118,763,476 | 108,830,392 |
| 1951 | 47,355,143 | 91,569,593 | 3,776,308 | 142,701,044 | 144,648,251 |
| 1952 | 53,968,946 | 105,621,372 | 4,067,919 | 163,658,237 | 176,872,294 |
| 1953 | 57,881,260 | 115,351,323 | 5,292,181 | 178,524,764 | 217,011,443 |
| 1954 | 67,017,621 | 134,283,382 | 4,855,351 | 206,156,354 | 259,228,426 |
| Manitoba.....1950 | 4,086,810 | 12,875,011 | 343,165 | 17,304,986 | 10,265,632 |
| 1951 | 4,347,543 | 13,967,343 | 333,655 | 18,648,541 | 12,520,784 |
| 1952 | 4,923,118 | 15,672,552 | 334,946 | 20,930,616 | 13,780,605 |
| 1953 | 6,741,322 | 15,849,467 | 386,091 | 22,976,880 | 16,166,404 |
| 1954 | 8,302,904 | 17,761,570 | 438,125 | 26,502,599 | 19,688,526 |
| Saskatchewan.....1950 | 6,919,369 | 16,872,024 | 476,227 ^r | 23,767,620 ^r | 5,212,399 |
| 1951 | 7,466,027 | 17,750,804 | 508,336 ^r | 25,725,167 ^r | 5,815,690 |
| 1952 | 8,721,620 | 21,063,694 | 660,625 ^r | 30,445,939 ^r | 7,063,834 |
| 1953 | 8,531,823 | 23,075,560 | 653,107 | 32,260,490 | 10,451,011 |
| 1954 | 10,285,634 | 23,284,137 | 794,671 | 34,364,442 | 11,889,601 |
| Alberta.....1950 | 7,794,234 | 19,619,264 | 481,376 | 27,894,874 | 20,200,574 |
| 1951 | 9,717,500 | 21,879,905 | 775,068 | 32,372,473 | 26,971,892 |
| 1952 | 10,957,753 | 25,214,092 | 849,372 | 37,021,217 | 31,590,656 |
| 1953 | 12,834,292 | 28,135,523 | 909,212 | 41,879,027 | 39,949,274 |
| 1954 | 15,860,193 | 31,284,290 | 1,074,866 | 48,219,349 | 49,845,206 |
| British Columbia.....1950 | 14,794,397 | 16,683,852 | 874,219 | 32,352,468 | .. |
| 1951 | 18,198,218 | 22,295,568 | 1,392,793 | 41,886,579 | .. |
| 1952 | 17,866,531 | 25,810,942 | 1,665,800 | 45,343,273 | .. |
| 1953 | 15,754,155 | 30,340,880 | 1,414,574 | 47,509,609 | .. |
| 1954 | 13,756,515 | 35,158,965 | 1,429,417 | 50,344,897 | .. |

¹ Net figures, after deduction of sinking funds.

Subsection 2.—Private Elementary and Secondary Schools

Private schools include all those not operated by publicly elected or appointed boards. Except in Quebec, they receive no support from public funds. Instruction is similar to that given in public schools except that more tuition may be given in music, dramatics, art, etc., and in schools under religious control there is greater emphasis on religious instruction. In most provinces there is some form of inspection or regulation by the provincial Department of Education.

Of the 865 private schools reporting in 1953-54, 550 were in Quebec, 110 in Ontario, 130 in the Prairie Provinces, 41 in British Columbia and 34 in the Maritimes. There were 6,057 full-time teachers of whom 1,593 were men. Outside of Quebec the salaries for lay teachers in these schools ranged from \$1,000 to \$8,000 with a median of \$2,432.

Salaries of members of religious orders are omitted as they are usually only nominal. In 1953-54 there were 41,727 girls and 31,595 boys enrolled in the reporting private schools, about 63 p.c. of them in the elementary grades. At the secondary level there were 24,711 girls and 17,574 boys enrolled.

Private schools are financed largely from fees, legacies and gifts, or are supported through religious organizations. Annual fees vary widely—in 1953-54 (for eight provinces) 122 schools charged no fees or fees under \$50, three schools charged fees of \$500 or more for day pupils, nine boarding schools charged no fees or fees of less than \$50 and 13 other boarding schools had fees of \$1,000 and up. The average fee in 1953-54 was \$90 for day schools and \$450 for boarding schools. Expenditures of private schools in all provinces in that year amounted to over \$18,869,000 of which \$6,100,000 was paid out in teachers' salaries.

7.—Enrolment in Private Elementary and Secondary Schools by Province, School Years Ended 1945-54

NOTE.—Figures from 1921 will be found in the corresponding table of previous Year Books beginning with the 1937 edition. There is one small private school in Newfoundland.

| Year | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Total |
|-----------|--------|-------|-------|---------------------|--------|-------|-------|-------|-------|----------------------|
| | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| 1945..... | 754 | 3,913 | 2,843 | 61,828 | 15,911 | 4,593 | 3,544 | 2,032 | 5,704 | 101,122 |
| 1946..... | 804 | 3,362 | 2,903 | .. | 16,336 | 4,643 | 3,682 | 2,852 | 5,576 | 40,158 ¹ |
| 1947..... | 803 | 3,109 | 2,841 | .. | 15,694 | 4,125 | 3,721 | 2,507 | 5,195 | 37,995 ¹ |
| 1948..... | 877 | 3,414 | 2,341 | 59,020 | 16,586 | 4,653 | 2,710 | 2,519 | 5,983 | 98,103 |
| 1949..... | 951 | 3,894 | 2,504 | 60,000 ² | 18,251 | 5,348 | 2,625 | 3,630 | 6,334 | 103,537 ² |
| 1950..... | 971 | 4,217 | 2,306 | 56,240 | 18,823 | 5,271 | 2,630 | 3,539 | 6,256 | 100,253 |
| 1951..... | 969 | 4,709 | 2,129 | 55,667 | 20,141 | 6,226 | 3,138 | 3,527 | 6,170 | 102,676 |
| 1952..... | 1,004 | 4,690 | 1,852 | 55,111 ² | 18,573 | 6,564 | 2,842 | 3,447 | 6,531 | 100,614 ² |
| 1953..... | 1,029 | 4,990 | 1,650 | 60,395 | 18,100 | 6,749 | 2,886 | 3,515 | 7,072 | 106,386 |
| 1954..... | 1,088 | 5,161 | 1,683 | 67,293 | 17,837 | 7,238 | 3,006 | 4,412 | 7,889 | 115,607 |

¹ Exclusive of Quebec.

² Estimated.

Business Colleges.—Of the 132 business schools reporting in 1953-54 in eight provinces (exclusive of Quebec and Newfoundland), 15 were in the Maritimes, 75 in Ontario, 25 in the Prairie Provinces and 17 in British Columbia. These employed 110 men and 277 women as full-time teachers and 29 men and 100 women as part-time teachers.

In these schools, girl students far outnumbered boys and the enrolment in evening classes was greater than that in the full-time day classes. The 1953-54 enrolments were: full-time day classes, 10,754 girls and 2,013 boys; correspondence courses, 601 girls and 174 boys. The total increased by 515 as compared with 1952-53. More than three-quarters of the full-time day students were from 16 to 19 years of age, inclusive.

Monthly fees ranged from \$9 to \$35 for day classes and from \$3 to \$15 for evening classes. Total operating expenditures for 1954 amounted to over \$2,886,000, of which \$1,308,000 went for teachers' salaries.

8.—Enrolment in Private Business and Commercial Schools (Business Colleges) by Province, School Years Ended 1945-54

NOTE.—Figures include day and evening classes. Those from 1921 will be found in the corresponding table of previous Year Books beginning with the 1937 edition.

| Year | P.E.I. | N.S. | N.B. | Que. ¹ | Ont. | Man. | Sask. | Alta. | B.C. | Total ¹ |
|-----------|--------|-------|-------|-------------------|--------|-------|-------|-------|-------|--------------------|
| | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| 1945..... | 104 | 684 | 816 | 8,557 | 11,241 | 3,532 | 1,200 | 2,726 | 2,906 | 31,766 |
| 1946..... | 181 | 1,080 | 805 | 9,659 | 14,642 | 4,099 | 1,568 | 3,481 | 4,021 | 39,536 |
| 1947..... | 212 | 1,106 | 1,119 | 10,000 | 15,024 | 3,721 | 1,904 | 3,855 | 4,009 | 40,950 |
| 1948..... | 227 | 1,011 | 958 | 10,000 | 13,917 | 3,493 | 1,633 | 3,731 | 3,674 | 38,544 |
| 1949..... | 214 | 1,070 | 916 | 10,600 | 12,938 | 3,449 | 1,554 | 2,969 | 3,932 | 37,642 |
| 1950..... | 185 | 1,053 | 1,099 | 11,100 | 11,999 | 3,648 | 1,662 | 2,700 | 4,356 | 37,802 |
| 1951..... | 152 | 825 | 958 | 11,700 | 11,101 | 3,084 | 1,595 | 2,694 | 3,408 | 35,517 |
| 1952..... | 156 | 861 | 868 | 12,300 | 11,800 | 3,595 | 1,540 | 3,211 | 3,737 | 38,068 |
| 1953..... | 190 | 817 | 926 | 12,900 | 11,238 | 3,267 | 1,471 | 3,538 | 3,620 | 37,967 |
| 1954..... | 123 | 764 | 915 | 13,500 | 11,655 | 3,692 | 1,489 | 3,499 | 3,445 | 39,082 |

¹ Estimated.

Subsection 3.—Universities and Colleges

Enrolment.—Total full-time university-grade enrolment in the regular winter session at Canadian universities and colleges totalled 63,041 in 1952-53, 64,140 in 1953-54 and 67,987 in 1954-55. The estimated figure for 1955-56 was 71,600 and for 1956-57 it was 78,100. Table 9 gives details of enrolment in 1953-54.

9.—Registration in Universities and Colleges by Province, Academic Year 1953-54

| Province and Item | University-grade | | Pre-matriculation | Others ¹ | Total |
|---|------------------|---------------|-------------------|---------------------|--------|
| | Under-graduate | Post-graduate | | | |
| | No. | No. | No. | No. | No. |
| Newfoundland— | | | | | |
| Full-time..... | 421 | — | — | — | 421 |
| Other..... | 490 | — | — | — | 490 |
| Prince Edward Island— | | | | | |
| Full-time..... | 257 | — | 491 | 43 | 791 |
| Other..... | 4 | — | — | — | 4 |
| Nova Scotia— | | | | | |
| Full-time..... | 3,876 | 65 | 302 | 32 | 4,275 |
| Other..... | 973 | 20 | 116 | 342 | 1,451 |
| New Brunswick— | | | | | |
| Full-time..... | 1,990 | 54 | 1,087 | 59 | 3,190 |
| Other..... | 825 | 56 | 14 | 753 | 1,648 |
| Quebec— | | | | | |
| Full-time..... | 20,302 | 1,044 | 18,311 | 3,472 | 43,129 |
| Other..... | 7,572 | 500 | 2,127 | 15,108 | 25,307 |
| Ontario— | | | | | |
| Full-time..... | 19,037 | 1,384 | 3,025 | 447 | 23,893 |
| Other..... | 9,500 | 1,446 | 143 | 13,336 | 24,425 |
| Manitoba— | | | | | |
| Full-time..... | 4,014 | 71 | 750 | 350 | 5,185 |
| Other..... | 1,427 | 113 | 244 | 2,266 | 4,050 |
| Saskatchewan— | | | | | |
| Full-time..... | 2,421 | 58 | 1,321 | 155 | 3,955 |
| Other..... | 3,525 | 37 | — | — | 3,562 |
| Alberta— | | | | | |
| Full-time..... | 3,264 | 71 | 719 | 208 | 4,262 |
| Other..... | 1,988 | * 80 | 71 | 1,208 | 3,347 |
| British Columbia— | | | | | |
| Full-time..... | 5,616 | 195 | — | 12 | 5,823 |
| Other..... | 1,729 | 374 | — | 5,955 | 8,058 |
| Totals— | | | | | |
| Regular Session, Full-time..... | 61,198 | 2,942 | 26,006 | 4,778 | 94,924 |
| Regular Session, Part-time..... | 5,088 | 1,757 | 182 | 2,857 | 9,884 |
| Summer Schools and Extramural Courses.. | 22,945 | 869 | 2,533 | 36,111 | 62,458 |

¹ Includes enrolment in diploma and certificate courses not of degree credit.

In 1954-55 one of about every 18 full-time university-grade students in Canada was a resident of a country other than Canada. Foreign enrolment has risen considerably since the end of World War II, with a larger proportion of students from outside the United States and the United Kingdom coming to Canadian institutions. In 1954 and 1955 well over half of all foreign students were from other than these two countries, as shown in Table 10.

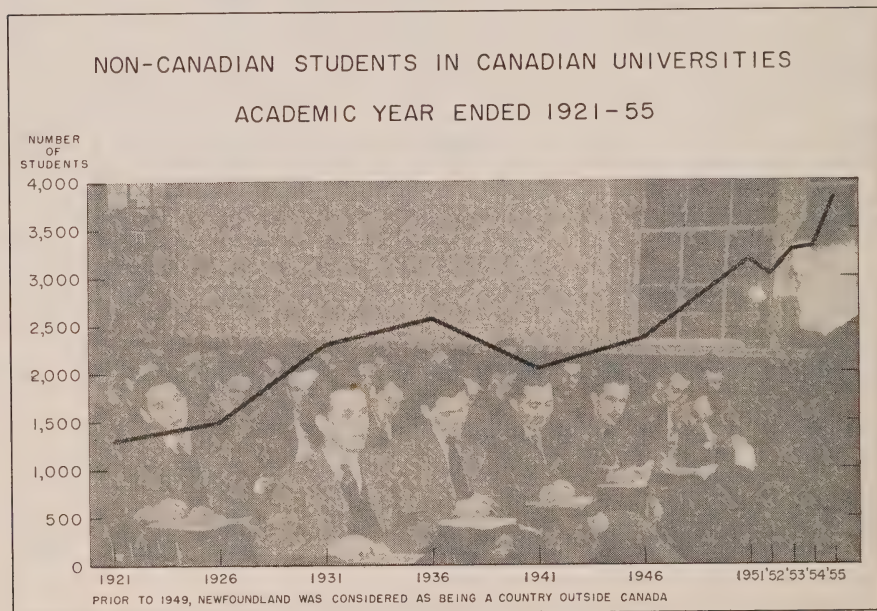
10.—Students from Other Countries in Canadian Universities and Canadian Students in Universities in the United States and the United Kingdom, Academic Years Ended 1921-55.

| Year | Total Full-time University Enrolment in Canada | Students with Residence in— | | | | | Total Enrolment from Other Countries in Canada ¹ | Canadians Studying in— | |
|-----------|--|-----------------------------|----------------|---------------------|---------------------------|-----------------|---|----------------------------|-----------------------------|
| | | United States | United Kingdom | British West Indies | Newfoundland ¹ | Other Countries | | United States ² | United Kingdom ³ |
| | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| 1921..... | 23,139 | .. | .. | .. | .. | .. | 1,306 | .. | .. |
| 1926..... | 25,698 | 934 | 133 | 64 | 130 | 236 | 1,497 | 123 | 156 |
| 1931..... | 32,926 | 1,506 | 333 | 54 | 175 | 236 | 2,304 | 1,313 | 212 |
| 1936..... | 35,108 | 2,018 | 156 | 32 | 133 | 237 | 2,576 | 1,075 | 262 |
| 1941..... | 36,319 | 1,478 | 41 | 74 | 174 | 289 | 2,056 | 1,458 | .. |
| 1946..... | 63,550 | 1,116 | 167 | 263 | 303 | 507 | 2,356 | 1,636 | .. |
| 1951..... | 68,306 | 1,758 | 164 | 252 | ... | 1,014 | 3,188 | 4,528 | 372 |
| 1952..... | 63,485 | 1,515 | 132 | 259 | ... | 1,106 | 3,012 | 4,317 | 380 |
| 1953..... | 63,041 | 1,676 | 150 | 284 | ... | 1,179 | 3,289 | 4,637 | 390 |
| 1954..... | 64,140 | 1,418 | 179 | 320 | ... | 1,401 | 3,318 | 4,775 | 390 |
| 1955..... | 67,987 | 1,540 | 179 | 472 | ... | 1,662 | 3,853 | 4,655 | 372 |

¹ Before 1949 Newfoundland was considered as being a country outside Canada.

² Data from the Committee on Friendly Relations Among Foreign Students, New York, U.S.A.

³ Data from the Association of Universities of the British Commonwealth, London, England. Newfoundland is included with Canada for all years.



Graduates.—Awards made during the 1953-54 session included 12,083 bachelor and first professional degrees, 1,468 master and licence degrees, 242 earned doctorates, 249 honorary doctorates and 6,989 diplomas and certificates. For 1954-55 awards included 12,290 bachelor and first professional degrees, 1,438 master and licence degrees, 271 earned doctorates, 282 honorary doctorates and 7,218 diplomas and certificates. Table 11 shows figures for graduates in most faculties for three years.

11.—Graduates from Universities and Colleges, Academic Years Ended 1953-55

NOTE.—Figures for 1920-36 are given in the 1938 Year Book, pp. 993-997, and for 1937-52 in the corresponding tables of subsequent editions.

| Field of Study | 1952-53 ¹ | | 1953-54 | | 1954-55 | |
|---|----------------------|--------------|--------------|--------------|--------------|--------------|
| | Total | Female | Total | Female | Total | Female |
| | No. | No. | No. | No. | No. | No. |
| Graduates in Arts, Pure Science and Commerce | 6,851 | 1,845 | 6,453 | 1,770 | 6,426 | 1,728 |
| Bachelors of Arts ¹ | 5,360 | 1,671 | 5,101 | 1,608 | 4,976 | 1,554 |
| Bachelors of Science (in Arts) ² | 793 | 139 | 756 | 122 | 753 | 128 |
| Bachelors of Commerce ³ | 698 | 35 | 596 | 40 | 697 | 46 |
| Graduates in Applied Science | 1,547 | 5 | 1,438 | 6 | 1,512 | 1 |
| Bachelors of Applied Science in Engineering..... | 1,337 | 2 | 1,252 | 1 | 1,337 | 1 |
| Bachelors of Architecture ⁴ | 102 | 3 | 92 | 5 | 95 | — |
| Bachelors of Forestry..... | 106 | — | 93 | — | 75 | — |
| Bachelors of Fisheries..... | 2 | — | 1 | — | 5 | — |
| Graduates in Agriculture, Veterinary Science and Household Science | 570 | 263 | 594 | 271 | 606 | 267 |
| Bachelors of Agricultural Science..... | 293 | 14 | 243 | 14 | 263 | 4 |
| First Degrees in Veterinary Science..... | 27 | — | 94 | — | 83 | 3 |
| Bachelors of Household Science..... | 250 | 249 | 257 | 257 | 260 | 260 |
| Teacher Diplomas and Graduates in Education, Library Science, and Social Science | 1,777 | 483 | 1,963 | 554 | 2,100 | 573 |
| Teacher diplomas (for secondary school teachers)..... | 827 | — | 797 | — | 868 | — |
| First degrees in education or pedagogy..... | 529 | 191 | 752 | 278 | 867 | 329 |
| Librarian degrees and diplomas..... | 113 | 102 | 105 | 83 | 83 | 65 |
| Physical education first degrees and diplomas..... | 89 | 41 | 101 | 44 | 76 | 38 |
| Social service degrees and diplomas..... | 219 | 149 | 208 | 149 | 206 | 141 |
| Graduates in Medicine and Related Studies | 2,205 | 795 | 1,986 | 600 | 2,225 | 800 |
| Medical doctors..... | 834 | 44 | 894 | 59 | 950 | 60 |
| Dentists..... | 219 | 5 | 169 | 5 | 174 | 3 |
| Pharmacists..... | 402 | 53 | 358 | 32 | 321 | 42 |
| First degrees and graduate diplomas in nursing..... | 604 | 602 | 386 | 385 | 590 | 590 |
| Physiotherapy and occupational therapy..... | 90 | 90 | 115 | 115 | 104 | 104 |
| Chiropractic..... | 35 | 1 | 34 | 2 | 43 | 1 |
| Optometry..... | 21 | — | 30 | 2 | 43 | — |
| Graduates in Law and Theology | 1,165 | 59 | 1,264 | 73 | 1,319 | 78 |
| First degrees and equivalent diplomas in Law..... | 586 | 28 | 627 | 31 | 624 | 21 |
| Roman Catholic theological colleges..... | 367 | — | 423 | — | 441 | 1 |
| Protestant theological colleges ⁵ | 212 | 31 | 214 | 42 | 254 | 56 |
| Other First Degrees and Equivalent Diplomas | 119 | 81 | 83 | 54 | 112 | 75 |
| Bachelors of Fine and Applied Arts..... | 17 | 12 | 13 | 10 | 16 | 11 |
| Bachelors of Interior Design..... | 15 | 13 | 14 | 11 | 9 | 6 |
| Journalism..... | 22 | 8 | 23 | 11 | 17 | 10 |
| Bachelors of Music..... | 65 | 48 | 33 | 22 | 70 | 48 |
| Graduate and Honorary Degrees | 2,109 | 347 | 2,161 | 366 | 2,385 | 473 |
| Honorary doctorates..... | 286 | 12 | 249 | 20 | 282 | 25 |
| Doctorates in course..... | 262 | 23 | 242 | 12 | 271 | 24 |
| Masters of Arts ⁶ | 677 | 160 | 798 | 197 | 764 | 180 |
| Masters of Science ⁷ | 376 | 23 | 376 | 26 | 374 | 30 |
| Bachelors of Divinity..... | 94 | 4 | 78 | — | 78 | — |
| Licences (except in Theology) ⁸ | 197 | 34 | 185 | 32 | 223 | 56 |
| Other graduate degrees and diplomas ⁹ | 217 | 91 | 233 | 79 | 393 | 158 |

¹ Includes Bachelors of Letters and Social Science.² Some institutions include Science degrees in

Arts.

³ Includes Bachelors of Accounting and Secretarial Science.⁴ Includes diplomas in Architecture

from the School of Fine Arts of Montreal.

⁵ Includes all diplomas and degrees except for Bachelors of Divinity.⁶ Includes M.Com., M.Ed., M.Paed., M.S.W., as well as M.A. In some institutions, M.Sc. degrees are included

with M.A.'s.

⁷ Includes M.A.Sc., M.S.A., M.Sc.F., M.Arch., M.V.Sc., M.Sc. Dent., M. Surgery (where

conferred separately), as well as M.Sc.

⁸ The "Licence" in the French-language universities is the next

degree in advance of the Bachelor.

⁹ Except diplomas for students in education and theology reported elsewhere.

Teaching Staff.—Table 12 shows the upward trend in university teaching staffs since 1921.

12.—Teaching Complement in Universities and Colleges, Academic Years Ended 1921-55

| Year | Faculties of Arts and Science | | Professional Schools | | Totals ¹ | |
|-----------|-------------------------------|-----------|----------------------|-----------|---------------------|-----------|
| | Full-time | Part-time | Full-time | Part-time | Full-time | Part-time |
| | No. | No. | No. | No. | No. | No. |
| 1921..... | 1,191 | 242 | 942 | 1,179 | 2,133 | 1,352 |
| 1931..... | 1,776 | 519 | 1,127 | 1,705 | 2,903 | 2,077 |
| 1941..... | 2,037 | 579 | 1,707 | 2,420 | 3,452 | 2,185 |
| 1946..... | 2,466 | 1,010 | 2,645 | 2,440 | 4,937 | 2,797 |
| 1947..... | 2,814 | 1,002 | 3,078 | 2,478 | 5,246 | 3,441 |
| 1948..... | 3,042 | 1,119 | 3,257 | 2,667 | 5,447 | 3,591 |
| 1949..... | 2,871 | 1,202 | 3,051 | 2,755 | 5,339 | 3,887 |
| 1950..... | 2,890 | 1,153 | 3,078 | 3,036 | 5,246 | 4,127 |
| 1951..... | 3,126 | 1,260 | 2,557 | 2,826 | 5,539 | 3,902 |
| 1952..... | 3,141 | 1,354 | 3,066 | 3,720 | 5,874 | 4,756 |
| 1953..... | 3,447 | 1,406 | 3,006 | 4,118 | 6,047 | 5,055 |
| 1954..... | 3,747 | 1,561 | 3,122 | 4,276 | 6,503 | 5,286 |
| 1955..... | 3,852 | 1,405 | 3,274 | 4,383 | 6,781 | 5,101 |

¹ Excludes duplication.

Table 13 gives median salaries, by rank and region, for the staffs of 17 major institutions for selected years since 1937-38 when the statistical series was begun.

13.—Median Salaries of Teachers at 17 Universities and Colleges, Academic Years Ended 1938-57

NOTE.—Institutions include: *West*—Universities of Manitoba, Saskatchewan, Alberta, British Columbia; *Central*—Bishop's, McGill, Queen's, Toronto, Victoria, Trinity, McMaster, Western Ontario; *Maritimes*—Acadia, Dalhousie, St. Francis Xavier, Mount Allison, New Brunswick.

| Rank and Region | 1938 ¹ | 1943 | 1948 | 1953 | 1955 | 1957 |
|---------------------------------------|--------------------------|--------------|---------------|--------------|--------------|--------------|
| | \$ | \$ | \$ | \$ | \$ | \$ |
| Deans..... | 5,000 | 4,875 | 5,000+ | 7,633 | 8,659 | 9,706 |
| West..... | 5,000+ | 4,958 | 5,000+ | 7,633 | 8,607 | 9,700 |
| Central..... | 5,000+ | 5,000+ | 5,000+ | 8,875 | 9,625 | 11,750 |
| Maritimes..... | 3,350 | 2,833 | 3,875 | 4,916 | 6,000 | 6,667 |
| Professors..... | 4,258 | 4,484 | 5,000+ | 6,405 | 7,229 | 8,217 |
| West..... | 4,279 | 4,380 | 4,816 | 6,319 | 7,131 | 8,076 |
| Central..... | 4,492 | 4,744 | 5,000+ | 6,873 | 7,507 | 8,511 |
| Maritimes..... | 2,831 | 2,833 | 3,726 | 4,279 | 4,865 | 5,600 |
| Associate Professors..... | 3,427 | 3,488 | 4,118 | 5,269 | 5,930 | 6,343 |
| West..... | 3,333 | 3,375 | 3,960 | 5,259 | 5,945 | 6,303 |
| Central..... | 3,594 | 3,597 | 4,368 | 5,439 | 6,091 | 6,594 |
| Maritimes..... | 2,708 | 2,750 | 3,313 | 4,065 | 4,393 | 4,239 |
| Assistant Professors..... | 2,697 | 2,757 | 3,280 | 4,414 | 4,824 | 5,238 |
| West..... | 2,690 | 2,817 | 3,267 | 4,440 | 4,842 | 5,287 |
| Central..... | 2,757 | 2,735 | 3,548 | 4,513 | 4,911 | 5,363 |
| Maritimes..... | 2,150 | 2,313 | 2,651 | 3,692 | 3,816 | 4,476 |
| Instructors and Lecturers..... | 1,805¹ | 1,787 | 2,242 | 3,332 | 3,761 | 4,052 |
| West..... | 2,000 | 2,122 | 2,243 | 3,525 | 3,955 | 4,236 |
| Central..... | 1,802 ¹ | 1,777 | 2,192 | 3,350 | 3,823 | 4,069 |
| Maritimes..... | 2 | 2 | 1,846 | 2,500 | 2,417 | 3,421 |
| All Staff..... | 3,001¹ | 3,009 | 3,454 | 4,838 | 5,386 | 5,874 |
| West..... | 3,257 | 3,264 | 3,398 | 4,859 | 5,488 | 5,993 |
| Central..... | 2,801 ¹ | 3,101 | 3,696 | 5,023 | 5,643 | 6,135 |
| Maritimes..... | 2,600 | 2,188 | 2,722 | 3,726 | 3,859 | 4,619 |
| Staff Complement..... | 1,577 | 1,701 | 2,026 | 2,514 | 2,739 | 2,979 |

¹ In 1937-38 one institution reported 383 instructors and lecturers earning less than \$1,000. As a corresponding number were not reported in later years, many of these were presumed to be either part-time or below the rank of instructor or lecturer; the median was calculated without these persons.

² Less than \$1,000.

Finances.—Since 1952, grants from federal, provincial and municipal governments to a group of institutions representing about 80 p.c. of the total full-time university-grade enrolments have exceeded half of the total current income, less ancillary enterprises. Table 14 gives a historical series of the finances of this group of institutions. The institutions omitted are mainly those conducted by religious orders where teachers receive little or no salary and the financial returns are consequently not comparable.

14.—Current Income and Expenditure and Capital Resources of Universities and Colleges, Academic Years Ended 1921-54

| Year | Current Income | | | | | Total Current Expenditure ² | Capital Resources | | |
|-------------------------|----------------------------|-------------------|---------------------------|---------------|--------------------|--|-------------------------------|------------|--------------|
| | Endowments and Investments | Government Grants | Student Fees ¹ | Miscellaneous | Total ¹ | | Land, Buildings and Equipment | Endowments | Trust Funds |
| | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| 1921..... | 1,497 | 4,522 | 1,826 | 1,244 | 9,089 | 8,975 | 48,124 | 28,328 | ² |
| 1931..... | 2,258 | 6,925 | 3,323 | 1,455 | 13,961 | 14,436 | 82,403 | 48,459 | ² |
| 1941..... | 2,046 | 6,804 | 5,143 | 2,054 | 16,047 | 16,156 | 95,680 | 55,082 | 17,422 |
| 1946..... | 2,397 | 10,485 | 9,779 | 3,153 | 25,815 | 25,358 | 102,627 | 56,975 | 28,999 |
| 1947..... | 2,314 | 13,768 | 13,636 | 3,203 | 32,921 | 32,889 | 112,409 | 59,208 | 34,397 |
| 1948..... | 2,387 | 14,863 | 14,903 | 4,689 | 36,842 | 36,664 | 123,248 | 63,724 | 42,302 |
| 1949..... | 2,568 | 16,218 | 15,959 | 4,845 | 39,590 | 39,197 | 139,779 | 69,012 | 43,093 |
| 1950..... | 2,950 | 16,959 | 15,409 | 5,140 | 40,458 | 40,697 | 150,178 | 84,410 | 37,821 |
| 1951..... | 3,127 | 18,733 | 14,025 | 4,647 | 40,532 | 40,792 | 162,372 | 82,702 | 34,686 |
| 1952..... | 3,185 | 25,284 | 14,544 | 5,208 | 48,221 | 47,195 | 181,393 | 81,737 | 37,507 |
| 1953 ² | 2,979 | 26,554 | 14,260 | 6,675 | 50,468 | 50,116 | 191,920 | 82,502 | 38,503 |
| 1954..... | 3,517 | 30,918 | 15,901 | 6,421 | 56,757 | 55,856 | 198,316 | 94,000 | 44,166 |

¹ Board and lodging not included.

² Included with "Endowments".

The Federal Government established a system of university grants for current operating purposes, the first of which were paid during the academic year ended 1952. The grants were paid on the basis of 50 cents per head of population in each province, the eligible institutions receiving their shares of the total provincial allotment according to the number of full-time students at university level attending degree or graduate diploma courses. For 1956-57 the payment was increased to \$1 per head of population. The distribution of payments, by province, is shown in Table 15.

15.—Federal Government Grants to Universities by Province, Academic Years Ended 1952-57¹

| Province and Year | | Institutions | Eligible Enrolment | Total Grants Paid ¹ | Grant per Eligible Student |
|---------------------------|------|--------------|--------------------|--------------------------------|----------------------------|
| | | No. | No. | \$ | \$ |
| Newfoundland..... | 1952 | 1 | 374 | 180,700 | 483.15 |
| | 1953 | 1 | 407 | 187,000 | 459.46 |
| | 1954 | 1 | 401 | 191,500 | 477.56 |
| | 1955 | 1 | 505 | 199,000 | 394.06 |
| | 1956 | 1 | 576 | 206,000 | 357.64 |
| | 1957 | 1 | 740 | 415,074 | 560.91 |
| Prince Edward Island..... | 1952 | 2 | 267 | 49,200 | 184.27 |
| | 1953 | 2 | 251 | 51,500 | 205.18 |
| | 1954 | 2 | 253 | 53,000 | 209.49 |
| | 1955 | 2 | 245 | 52,500 | 214.29 |
| | 1956 | 2 | 260 | 54,000 | 207.69 |
| | 1957 | 2 | 310 | 99,285 | 320.27 |

For footnotes, see end of table, p. 362.

15.—Federal Government Grants to Universities by Province, Academic Years Ended 1952-57¹—concluded

| Province and Year | Institutions | Eligible Enrolment | Total Grants Paid ¹ | Grant per Eligible Student |
|---------------------------------------|--------------|--------------------|--------------------------------|----------------------------|
| | No. | No. | \$ | \$ |
| Nova Scotia.....1952 | 13 | 3,475 | 321,250 | 92.45 |
|1953 | 13 | 3,430 | 326,500 | 95.19 |
|1954 | 13 | 3,696 | 331,500 | 89.69 |
|1955 | 12 | 3,948 | 336,500 | 85.23 |
|1956 | 12 | 4,224 | 341,500 | 80.85 |
|1957 | 12 | 4,470 | 694,717 | 155.42 |
| New Brunswick.....1952 | 6 | 1,893 | 257,800 | 136.19 |
|1953 | 6 | 1,815 | 263,000 | 144.90 |
|1954 | 6 | 2,014 | 268,000 | 133.07 |
|1955 | 6 | 2,231 | 273,500 | 122.59 |
|1956 | 6 | 2,483 | 279,000 | 112.36 |
|1957 | 6 | 2,775 | 554,616 | 199.86 |
| Quebec ²1952 | 5 | 19,273 | 2,027,800 | 105.21 |
|1957 | 6 | 23,898 | 4,628,378 | 193.67 |
| Ontario.....1952 | 27 | 18,203 | 2,298,750 | 126.28 |
|1953 | 27 | 17,593 | 2,383,000 | 135.45 |
|1954 | 27 | 16,939 | 2,448,500 | 144.55 |
|1955 | 27 | 17,896 | 2,523,000 | 140.98 |
|1956 | 27 | 18,801 | 2,591,500 | 137.84 |
|1957 | 29 | 20,723 | 5,404,933 | 260.82 |
| Manitoba.....1952 | 7 | 3,932 | 388,250 | 98.74 |
|1953 | 7 | 3,953 | 399,000 | 100.94 |
|1954 | 7 | 4,051 | 404,500 | 99.85 |
|1955 | 7 | 4,171 | 414,000 | 99.26 |
|1956 | 7 | 4,180 | 424,500 | 101.56 |
|1957 | 8 | 4,430 | 850,040 | 191.88 |
| Saskatchewan.....1952 | 14 | 2,301 | 415,850 | 180.73 |
|1953 | 14 | 2,314 | 421,500 | 182.15 |
|1954 | 14 | 2,424 | 430,500 | 177.60 |
|1955 | 14 | 2,684 | 439,000 | 163.56 |
|1956 | 14 | 2,925 | 444,500 | 151.97 |
|1957 | 14 | 3,327 | 880,665 | 264.70 |
| Alberta.....1952 | 4 | 2,844 | 469,750 | 165.17 |
|1953 | 5 | 2,937 | 485,000 | 165.13 |
|1954 | 4 | 3,171 | 501,000 | 157.99 |
|1955 | 4 | 3,297 | 519,500 | 157.57 |
|1956 | 4 | 3,558 | 533,000 | 149.80 |
|1957 | 4 | 3,873 | 1,123,116 | 296.89 |
| British Columbia.....1952 | 4 | 5,664 | 582,600 | 102.86 |
|1953 | 4 | 5,457 | 599,000 | 109.77 |
|1954 | 5 | 5,616 | 615,000 | 109.51 |
|1955 | 5 | 6,005 | 633,000 | 105.41 |
|1956 | 5 | 6,563 | 652,500 | 99.42 |
|1957 | 5 | 7,930 | 1,398,464 | 176.35 |
| Totals ^{1,2}.....1952 | 83 | 58,226 | 6,991,950 | 120.08 |
|1953 | 79 | 38,157 | 5,115,500 | 134.06 |
|1954 | 79 | 38,565 | 5,243,500 | 135.97 |
|1955 | 78 | 40,982 | 5,390,000 | 131.52 |
|1956 | 78 | 43,570 | 5,526,500 | 126.84 |
|1957 | 87 | 72,476 | 16,049,288 | 221.44 |

¹ The grant from 1951-52 to 1955-56 was 50 cents per head of population in each province; for 1956-57 it was \$1 per head of population.

² Institutions in Quebec accepted payment only in 1951-52, refusing from 1952-53 to 1955-56. For 1956-57, payments refused will be held in trust by the National Conference of Canadian Universities until the institutions see fit to accept them.

During the 1956-57 academic year, plans were announced by the Federal Government for the distribution of \$50,000,000 to Canadian universities and colleges for new construction and capital equipment projects. The grants will be made in an amount not exceeding

50 p.c. of the cost of specific building or capital equipment projects, with appropriate regard to the population of each province. The University Capital Grants Fund will be administered by the Canada Council, which came into existence on Mar. 28, 1957, when an Act for the establishment of a Canada Council for the Encouragement of the Arts, Humanities and Social Sciences in Canada was given Royal Assent. The Council, first proposed in the Massey Report of 1951, was also endowed with an additional \$50,000,000 for the provision of scholarships and other assistance in the fields of the arts, humanities and social sciences.

PART II.—CULTURAL ACTIVITIES RELATED TO EDUCATION*

Section 1.—Art and Education†

Fine Art Schools, Galleries and Museums.—Fine art appears as an elective subject of the faculty of arts in a number of universities, where it may be taken as one of five subjects for a year or two; in some, e.g., Acadia University, N.S., there are six or more elective courses. In Mount Allison University, N.B., and in the Universities of Saskatchewan and Manitoba, there is a sufficient number of courses to allow the taking of a Bachelor degree with specialization in fine art. At the University of Toronto, Ont., an Honour B.A. in art and archæology is offered, as well as graduate work in this field. Departments of fine art were opened by McGill University in 1948-49, by the University of British Columbia in 1949-50 and by the University of Alberta in 1953-54; McMaster University reopened its department in 1951.

There are also schools of art not requiring any fixed academic standing for admission, as they are more concerned with the technical development of the artist. The most widely known of these are:—

Nova Scotia College of Art, Halifax, N.S.

École des Beaux-Arts, Quebec, Que.

École des Beaux-Arts, Montreal, Que.

School of Art and Design, Montreal Museum of Fine Arts, Montreal, Que.

Ontario College of Art, Toronto, Ont.

University of Manitoba School of Art, Winnipeg, Man.

Provincial Institute of Technology and Art, Banff School of Fine Arts,
Banff, Alta. (affiliated with the University of Alberta) Calgary, Alta.

Vancouver School of Art, Vancouver, B.C.

Courses in these schools vary in length with the requirements of the individual student but may extend over as many as four years. Summer schools of art are sponsored by some of the foregoing institutions, by universities, and by various independent groups.

Public art galleries and museums in the principal cities perform valuable educational services among adults and children. Children's Saturday classes, conducted tours for school pupils and adults, radio talks, lectures and often concerts are features of the programs of the various galleries. Many of these institutions supply their surrounding areas with travelling exhibitions, and organizations such as the Maritime Art Association, the Western Canada Art Circuit, the Saskatchewan Arts Board and the Art Institute of Ontario, have been founded to carry on the work on a regional basis. The National Gallery of Canada has a nationwide program of this nature.

* An outline of the *Report of the Royal Commission on National Development in the Arts, Letters and Sciences*, which was tabled in Parliament on June 1, 1951, is given in the 1952-53 Year Book, pp. 342-345. Available from the Queen's Printer, Ottawa.

† Revised under the direction of Alan Jarvis, Director, National Gallery of Canada, Ottawa.

The principal art galleries and museums* are:—

New Brunswick Museum, Saint John, N.B.
 Museum of the Province of Quebec, Quebec, Que.
 Montreal Museum of Fine Arts, Montreal, Que.
 National Gallery of Canada, Ottawa, Ont.
 London Public Library and Art Museum, London, Ont.
 Art Gallery of Toronto, Toronto, Ont.
 Royal Ontario Museum of Archaeology, Toronto, Ont.
 Art Gallery of Hamilton, Hamilton, Ont.
 Willistead Library and Art Gallery, Windsor, Ont.
 Winnipeg Art Gallery, Winnipeg, Man.
 Regina College Gallery, Regina, Sask.
 Edmonton Museum of Arts, Edmonton, Alta.
 Vancouver Art Gallery, Vancouver, B.C.
 Arts Centre of Greater Victoria, Victoria, B.C.

Other Art Organizations.—The leading art organizations of national scope, exclusive of museums and art galleries, include the following:—

Association of Canadian Industrial Designers
 Canadian Arts Council†
 Canadian Group of Painters
 Canadian Guild of Potters
 Canadian Handicrafts Guild
 Canadian Museums Association‡
 Canadian Society of Graphic Arts
 Canadian Society of Painter-Etchers and Engravers
 Canadian Society of Painters in Water Colour
 Canadian Society of Landscape Architects and Townplanners
 Community Planning Association of Canada
 Federation of Canadian Artists
 Royal Canadian Academy of Arts
 Royal Architectural Institute of Canada
 Sculptors Society of Canada.

The National Gallery of Canada.—Founded in 1880 by the Marquis of Lorne, the National Gallery at first served only as an exhibition gallery. Provided with an Advisory Arts Council in 1907, and first incorporated under a Board of Trustees in 1913, it has assembled a permanent collection mainly during the past 40 years. This collection of pictures and sculpture, prints and drawings, representing the styles, past and present, of various parts of the world, was assembled for public enjoyment, study, and the improvement of arts and industrial products, and as the necessary basis of a program of art education. The National Gallery Act, amended in 1951, gives the institution a larger Board of Trustees and other advantages.

The collection of the National Gallery today is of international repute and is accessible to the whole country by means of catalogues, photographs, colour reproductions and, to a limited extent, by loans. The Canadian section, naturally the most inclusive, is the best available source for the study of Canadian art. Each year, examples of the best contemporary work are added, along with those of earlier periods.

The National Gallery conducts a program of extension work throughout the country. The majority of exhibitions are available to the entire country and are widely circulated. About 30 such exhibitions are toured and as many as 200 separate showings have been held annually under the auspices of the National Gallery of Canada. In addition individual loans of material from the collection are made to centres in many parts of the country each year. In this way original works of art are constantly being brought to the attention of the public. Sets of reproductions are also sent on tour of localities that have not the facilities for handling originals.

* A complete list of Canadian art museums, societies and schools is included in the Canadian section of the current issue of the *American Art Directory* (R. R. Bowker Co., New York).

† An account of the Canadian Arts Council and a list of its constituent bodies appears in the 1951 Year Book, p. 308.

‡ Formed in 1947 with the object of improving the services of museums as educational institutions by promoting co-operation among themselves, by exchange with other countries and by the training and securing of expert staffs.

An Industrial Design Division has been set up as the result of public interest in bringing the design of Canadian goods up to the best international standards and in fostering distinctive Canadian designs and a number of exhibitions on Canadian industrial art have been held in various parts of the country. The Design Centre in the Daly Building, Ottawa, serves as an exhibition centre and as headquarters for the national program in industrial design sponsored by the National Gallery.

Other methods of education in the arts apply more specifically to young people and are designed, in part, to supplement regular school work. The Gallery provides written lectures illustrated by lantern slides on all aspects of art history, reproductions of paintings with introductory texts for art appreciation, school broadcasts, classes for school children at the Gallery, exhibitions of children's art, conducted tours of the Gallery's collections and educational demonstrations. Lecture tours by well known authorities are also held throughout Canada.

The National Gallery also maintains a library of art films. These as well as the facsimile colour reproductions and silk screen prints published by the National Gallery are listed in the free leaflet, *Reproductions, Publications and Educational Material*. In connection with the CBC school broadcasts on Canadian artists, the National Gallery distributes small colour reproductions to school children in all parts of the country. The magazine *Canadian Art*, in the publication of which the National Gallery has taken a leading part, is widely distributed.

The *Report of the Royal Commission on National Development in the Arts, Letters and Sciences* made recommendations for the extension and improvement of the Gallery's exhibition and education services; increases in funds, staff and facilities; maintenance or increase of appropriations for acquisitions; and a new building containing adequate facilities for display, storage, circulation of exhibitions and conservation of paintings. Many of these recommendations are being carried out and new quarters, to be known as the Lorne Building, are now under construction.

Further details concerning recent purchases, exhibitions and lecture tours arranged by the National Gallery are contained in the *Annual Report of the Board of Trustees*.

Section 2.—The Educational and Cultural Functions of the National Film Board*

The National Film Board, an agency of the Federal Government, was established by Act of Parliament in 1939 and reconstituted by the National Film Act in 1950. In the years since its establishment the Board has grown from a supervisory body over Canadian Government motion picture activities to a national documentary film producing and distributing organization whose films about Canada are seen wherever people may freely assemble. The Board also produces and distributes filmstrips and still photos on Canadian themes in accordance with its primary function outlined in the Act "to initiate and promote the production and distribution of films in the national interest".

Films and filmstrips are being more widely employed as adjuncts to formal teaching in schools and universities. In the fiscal year 1956-57 there were 105,970 showings in schools and universities of films made or distributed by the National Film Board. Films produced by the Board are also shown in commercial theatres and on television in Canada and abroad. Items particularly designed for theatre use include the *Canada Carries On* and *Eye Witness* series in English (*En Avant Canada* and *Coup d'Oeil* in French) as well as newsreel features. Distribution of these usually is arranged through the major film distributing organizations, whose facilities are world-wide.

An increasing proportion of the Board's productions are being shown by television in Canada and abroad. A weekly series, *Perspective* (*Panoramique* in French) is televised nationally by CBC-TV, and local TV stations have constant recourse to individual films from the Board's general production. Abroad the principal televising of the Board's films takes place in the United States.

* Prepared, under the direction of the Government Film Commissioner, in the Information and Promotion Division, National Film Board, Montreal, Que.

The non-theatre program in Canada is based on a nation-wide system of film circuits, film councils and libraries and is deeply rooted in community activities. In the year ended Mar. 31, 1957, no less than 474 film councils—voluntary groups promoting wider use of documentary films—were in existence and 460 film libraries and depots assisted in the circulation of thousands of prints.

Canada's story on film is also being told abroad. In addition to commercial distribution through theatres and television, non-commercial circulation is carried on through posts of the Departments of External Affairs and Trade and Commerce, through National Film Board offices in London, England, New York and Chicago in the United States and New Delhi in India, as well as through libraries operated by various educational agencies. Hundreds of prints of National Film Board films are also sold in other countries each year. Exchange agreements are in effect between the Board and government film-producing organizations in other lands; this means that films of various nations are freely exchanged with Canada, aiding better international understanding.

The National Film Board maintains a library of more than 100,000 still photographs, which are available to magazines, newspapers and other periodicals wishing to present current information about Canada.

Section 3.—The Educational and Cultural Functions of the Canadian Broadcasting Corporation*

Many hours of educational or semi-educational programs are broadcast annually by the Canadian Broadcasting Corporation in the English and the French languages. Whether these programs are directed to children or adults, entertainment is combined with information whenever possible. Spoken-word programs cover a very wide range of interests and are presented as readings, talks, discussions, documentary programs, dramatizations or in forms combined with music.

Pre-school Broadcasts.—Though many story programs for pre-school-age children are broadcast purely as entertainment, a special series has been developed to give young children, particularly in remote areas, many of the benefits of kindergarten training. This series, *Kindergarten of the Air*, is broadcast Monday to Friday for children from three and a half to six years of age. Planned with the advice of kindergarten experts and representatives of the Canadian Home and School Federation, the Federation of Women's Institutes and the Junior League, it includes stories, songs, simple games, keeping-fit exercises, information about animal life and nature study, and encourages good habits of hygiene, eating and relaxation. The program is intended primarily for home listening but has been found useful in many organized kindergarten groups and classes.

School Broadcasts.—In an average school year, more than 1,000 school programs, mostly in dramatized form, are broadcast to all parts of Canada. The CBC provides facilities for thirty-minute daily programs specifically planned by Departments of Education to meet classroom requirements. These supplementary aids help teachers to stimulate student imagination and strengthen motives for study. The National School Broadcasts series are planned by the National Advisory Council on School Broadcasting to promote among students a stronger consciousness of Canada and its achievements. During the 1956-57 season, seven such series were planned for students from Grade 4 to senior high school. These were: *Voices of the Wild*, on Canadian wildlife; *Look to the North*, a series to give students a wider, up-to-date knowledge of Canada's increasingly important Arctic region; *They Explored Canada*, a series dramatizing outstanding events in Canadian history; *Hamlet*, a full-length performance of the Shakespearean drama; *Commonwealth Roundup*, comprising four programs on interesting aspects of other Commonwealth nations with specially recorded effects contributed by the broadcasting organizations in the United

* Prepared under the direction of J. A. Ouimet, General Manager, Canadian Broadcasting Corporation, Ottawa. Other aspects of CBC services are outlined in Chapter XX.

Kingdom, Australia, South Africa and India; *Canadian Legends*, a series of five broadcasts in which a new approach to music appreciation was used—a composer, Peter Tchaikovsky, tells about his life with particular emphasis on the music of his three ballets, *The Swan Lake*, *The Sleeping Beauty* and *The Nutcracker*.

The first experimental television programs for school use were presented during November 1954, and a second series in April 1956. The second series consisted of fifteen telecasts planned to provide a visual supplement to classroom studies in social studies, language, science and art. They were divided into three grade levels—2 to 4, 5 and 6, and 7 to 10. They were presented in an early afternoon period and carried over a network of 29 CBC and privately owned stations. Teachers were supplied in advance with a manual giving instruction on how to use the telecasts. Approximately 1,850 classes with 62,500 students, covering all ten provinces, viewed the second series. In the report on their evaluation published by the CBC under the title *School Television in Canada*, the National Advisory Council on School Broadcasting concluded that "television has definite value as a teaching aid in the school classroom"; that the programs should be closely correlated with the curriculum; and that further experiments should be undertaken at the provincial level.

Adult Education.—Programs of an adult education nature are presented frequently by the CBC on its radio and television services. In the planning of these programs co-operation is received from various educational organizations. The CBC is an active participant in the work of the Joint Planning Commission, a body established by the Canadian Association for Adult Education for exchange of information and co-ordination of plans for adult education in Canada.

Radio Programs.—*Citizens' Forum*, which has been telecast for the past two years, is a round-table program on which a panel of informed speakers who hold varying viewpoints discuss important issues of the day. It is arranged jointly by the Canadian Association for Adult Education and the CBC. Its French counterpart, *Les idées en marche*, which is carried on television as well as radio, is planned in co-operation with La Société Canadienne d'Éducation des Adultes. Similar types of programs prepared specially for rural listeners are *National Farm Radio Forum* and *Le choc des idées*, arranged by CBC in co-operation with the Canadian Federation of Agriculture and the Canadian Association for Adult Education. All these forum programs are heard by organized listening groups, which continue the discussion of the topic at the conclusion of the broadcast.

For the past six summers the evening sessions of the Couchiching Conference have been broadcast. This week-long conference, organized jointly with the Canadian Institute on Public Affairs, examines Canadian and international affairs in open meetings and group discussions. Other programs of an educational nature are *Cross Section*, a series of radio documentaries dealing with economic and social questions; various dramatized series in the field of human relations and mental health; *Science Review*, which examines important discoveries in the field of the natural sciences and their branches; *Business and Labour Review*, designed to inform listeners of developments in Canada's economic life; *Anthology*, a literary program with emphasis on Canadian writers; and *Trans-Canada Matinée*, a daily afternoon program including informative talks and commentaries designed specially for the woman in the home. On the French network *Les voisins d'en face*, prepared in conjunction with L'École de Parents, presents a series of programs relating to parents and children; and general questions sent in by parents are answered by psychologists in the series *Le Courrier de radio-parents*. For women listeners, the daytime program *Fémina* is presented three times a week.

The French network also broadcasts a number of weekly programs dealing with fine arts, music, literature, theatrical arts, sciences, religion and philosophy, under the auspices of *Radio-College*. These broadcasts are not designed for classroom use, being of a more adult nature than the School Broadcasts on the English-language networks and scheduled, in the main, for other than school hours.

In addition, talks on a wide range of subjects including international affairs, Canadian history and community activities are broadcast regularly over the various networks.

Television Programs.—In addition to *Citizens' Forum*, programs which are carried regularly on both radio and television are *Press Conference*, in which people who make the news are questioned by those who report it; and *Fighting Words*, in which guest experts in various fields discuss controversial quotations sent in by viewers.

Open House, a daily program for women, presents information on a wide variety of commodities and services, and interviews with people of note. Important world news of the preceding week is discussed by a panel each Sunday night on *This Week*. *Explorations*, a series of drama documentaries which examines questions in the fields of sociology and the natural sciences, was one of seven CBC programs to win First Awards at the 1957 Exhibition of Educational Radio and Television Programs at Columbus, Ohio. Programs in the field of parent-education and mental health are also telecast.

Portions of the afternoon sessions of the Winter Conference of the Canadian Institute on Public Affairs were telecast. This three-day weekend conference examined sociological questions in open meetings and group discussions.

On the French network *C'est la vie* investigates various professions and callings; *Pays et merveilles* presents illustrated discussions of life in other countries; and *Profil d'adolescents* considers topics and problems of interest to teenagers.

Section 4.—The Canada Council

On Feb. 15, 1957, the House of Commons passed an Act for the Establishment of a Canada Council for the Encouragement of the Arts, Humanities and Social Sciences. The continuing objects of this body are to foster and promote the study and enjoyment of, and the production of works in, the arts, humanities and social sciences. The expression, "the arts" is defined by the Canada Council Act as: architecture, the arts of the theatre, literature, music, painting, sculpture, the graphic arts, and other similar creative and interpretative activities. The Council, in furtherance of its objects, may (a) assist, co-operate with and enlist the aid of organizations, the objects of which are similar to any of the objects of the Council; (b) provide a scheme of scholarships, fellowships and other grants to persons in Canada for study or research in the arts, humanities and social sciences in Canada or elsewhere, and to persons in other countries for study and research in the same subjects in Canada; (c) make awards to persons in Canada for outstanding accomplishment in the arts, humanities and social sciences; (d) arrange for and sponsor exhibitions, performances and publications of works in the arts, humanities and social sciences; (e) exchange with other organizations or persons and with other countries knowledge and information respecting the arts, humanities and social sciences; (f) arrange for representation and interpretation of Canadian arts, humanities and social sciences in other countries. In addition, the Canada Council may be assigned by the Governor in Council such functions and duties in relation to the United Nations Educational, Scientific and Cultural Organization (UNESCO) as he considers desirable.

The Council is a corporation consisting of a Chairman, a Vice-Chairman and nineteen other members, all appointed by the Governor in Council. The Chairman and Vice-Chairman are appointed for terms not exceeding five years and the other members for terms of three years each. After serving two terms, members of the Council, including the Chairman and Vice-Chairman, are not eligible for re-appointment during the twelve months following completion of the second term. The principal officers of the organization are the Director and the Associate Director, also appointed by the Governor in Council, the Treasurer and the Secretary. The Council is not an agent of the Crown, but its officers and employees are considered to be employed in the Public Service for the purposes of the Public Service Superannuation Act. The Council is deemed to be a charitable organization in Canada.

The continuing work of the Council will be financed by income from a permanent Endowment Fund of \$50,000,000 and by a University Capital Grants Fund of \$50,000,000, both to be paid out of the Consolidated Revenue Fund. The latter Fund and the income it earns will be completely expended by the Council over a specified term of years. This Fund will enable the Council to make grants to universities and other institutions of higher learning by way of capital assistance in respect of building projects, with the following limitations: (a) a grant for any one project may not exceed one-half the total expenditures made in respect of that project; (b) in any province the aggregate of the grants made may not exceed an amount that is in the same proportion to the aggregate amount credited to the University Capital Grants Fund as the population of the province (latest census) is to the aggregate population of the provinces in which there is a university or other similar institution of higher learning. The Canada Council is also permitted to expend and administer any gifts and bequests it may receive.

To aid and advise the Council in making, managing and disposing of investments under the Canada Council Act, an Investment Committee has been set up consisting of the Chairman of the Council, one other member of the Council designated by the Council, and three members appointed by the Governor in Council. Proceeds from the sale or other disposition of any investments made out of the Endowment Fund or the University Capital Grants Fund are credited to the Fund out of which the investment was made. Investments out of money standing to the credit of the University Capital Grants Fund are made only in bonds or other securities of, or guaranteed by, the Government of Canada.

The Governor in Council appoints a member of the Queen's Privy Council for Canada to whom at the end of each fiscal year the Chairman reports all proceedings under the Canada Council Act for that fiscal year, including the financial statements of the Council and the Auditor General's report thereon. Provision is made for a review of these reports by Parliament.

Section 5.—Library Services

The National Library.—The National Library of Canada, authorized by the National Library Act of June 18, 1952 (1 Elizabeth II, c. 330), came into existence formally on Jan. 1, 1953. The work formerly carried on by the Bibliographic Centre and the staff of the Centre were then absorbed by the National Library, which came under the administration of the Secretary of State.

The Act provides for the establishment of an Advisory Council consisting of 15 members, including at least one representative from each of the ten provinces; the appointment of a National Librarian, an Assistant Librarian and other personnel. Duties of the National Librarian include the establishment of a National Union Catalogue listing the books in every important collection in Canada; the purchasing of book stock; and the publication of a National Bibliography listing books published in Canada, written by Canadians, or of special interest to Canadians. The Act requires two copies of each book published in Canada to be supplied to the National Librarian within one month of the date of publication; one copy of expensive books must be deposited.

The site has been selected and working plans are being prepared for the National Library building at Ottawa. The acquisition of book stock is limited until permanent quarters are available but activities in other departments of the Library reflect noteworthy progress. The coverage of *Canadiana*, a bilingual monthly publication listing new Canadian publications, has been expanded to include those issued by all provincial governments. By Dec. 31, 1956, individual library catalogues representing about 7,000,000 volumes in 122 libraries had been microfilmed for the National Union Catalogue. In addition the library has assumed the duty of receiving, registering and acknowledging all books deposited under the terms of the Copyright Amendment Act.

Public Libraries.—Public library service in Canada includes main libraries and their branches in metropolitan areas—sometimes augmented by bookmobile service to outlying districts—small association libraries in villages and hamlets, regional service on a county or wider basis, and the use of boats and the mails to supply remote rural areas. Through these facilities, 75 p.c. to 80 p.c. of the population receive library service.

Preliminary statistics of public library operations for the year 1956 appear in Table 1. These cover the activities of 825 public libraries in Canada.

1.—Summary Statistics of Public Libraries by Province 1956

| Province or Territory | Libraries | Volumes | Circulation | Borrowers | Full-Time Staff | Trained Staff ¹ |
|-----------------------------|------------|------------------|-------------------|------------------|--------------------|-------------------------------|
| | No. | No. | No. | No. | No. | No. |
| Newfoundland..... | 2 | 206,961 | 609,963 | 51,071 | 32 | 6 |
| Prince Edward Island..... | 2 | 99,951 | 235,408 | 9,094 | 11 | 4 |
| Nova Scotia..... | 14 | 285,163 | 1,164,730 | 85,047 | 56 | 26 |
| New Brunswick..... | 11 | 143,015 | 285,417 | 22,443 | 21 | 3 |
| Quebec..... | 38 | 1,402,380 | 1,768,074 | 114,144 | 178 | 102 |
| Ontario..... | 490 | 5,176,940 | 20,302,493 | 1,163,224 | 1,086 | 337 |
| Manitoba..... | 17 | 261,228 | 1,440,622 | 61,701 | 80 | 18 |
| Saskatchewan..... | 73 | 445,051 | 1,382,752 | 82,982 | 93 | 24 |
| Alberta..... | 119 | 752,498 | 2,739,946 | 160,456 | 121 | 36 |
| British Columbia..... | 53 | 992,960 | 5,484,289 | 274,628 | 325 | 91 |
| Northwest Territories..... | 3 | 9,300 | 1,280 | 1,220 | — | — |
| Yukon Territory..... | 3 | 10,540 | 8,262 | 201 | — | — |
| Totals..... | 825 | 9,785,987 | 35,423,236 | 2,026,211 | 2,003 | 647 |

¹ Librarians with Bachelor of Library Science degrees.

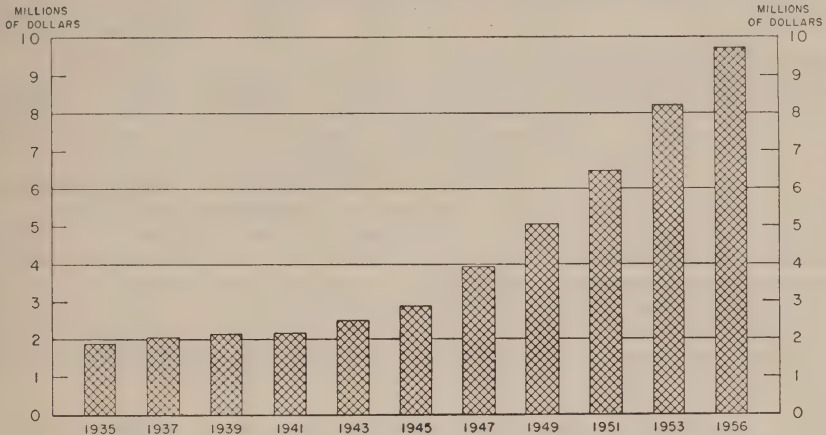
Of the 825 libraries surveyed in 1956, 101 were in cities of 10,000 population or over, and these employed the bulk of the full-time staff members of all public libraries. Median annual salaries in city libraries varied with the size of the city as follows:—

| <u>Staff</u> | <i>Cities with Populations of—</i> | | |
|---------------------------------|------------------------------------|---------------------------|----------------------------|
| | <i>10,000- 24,999</i> | <i>25,000- 99,999</i> | <i>100,000 Or over</i> |
| | \$ | \$ | \$ |
| Chief librarian..... | 3,771 | 4,929 | 6,750 |
| Deputy chief librarian..... | 3,583 | 4,333 | 5,250 |
| Head of branch or division..... | 3,400 | 3,868 | 4,212 |
| Other librarians..... | 3,083 | 3,292 | 3,569 |
| Other professional staff..... | 2,250 | 3,188 | 2,792 |
| Library assistants..... | 1,881 | 2,039 | 2,439 |
| Clerical staff..... | 1,500 | 2,063 | 2,149 |

In addition to the primary task of circulating reading material, public libraries undertake varied special services. City libraries in 1956 lent 104,235 films and 116,474 records, organized 166 art exhibits, presented 293 radio and drama shows and had 11,317 public film showings with total attendance of over 3,000,000 persons. About 4,741 story hours for children were presented, usually on Saturday mornings.

Regional Library Service.—Regional library service, or an adaptation thereof, now functions in Newfoundland, Prince Edward Island, Nova Scotia, Ontario, Saskatchewan, Alberta and British Columbia. In addition, the first regional library supervisor has been appointed in New Brunswick to organize a regional system originating in Moncton and designed eventually to provide library service for the counties of Westmorland, Albert and Kent. In February 1956, a program of provincial grants to regional libraries was announced in Manitoba and the Provincial Library is fostering regional library development in that Province.

OPERATING EXPENDITURES OF PUBLIC LIBRARIES
FOR SPECIFIC CALENDAR YEARS



Summary statistics for the regional libraries in operation are given in Table 2.

2.—Summary Statistics of Libraries Organized for Regional Collaboration 1956

| Regional Organization | Volumes | Circulation | Expenditure | |
|--|---------|---------------------|---------------------|----------------------|
| | | | Book Stock | Total |
| | No. | No. | \$ | \$ |
| Newfoundland Regional Libraries ¹ | 154,900 | 524,943 | 45,000 ² | 143,883 ² |
| Prince Edward Island Libraries..... | 92,950 | 194,481 | 10,015 | 37,000 |
| Nova Scotia Regional Libraries— | | | | |
| Annapolis Valley..... | 28,291 | 148,913 | 6,386 | 30,084 |
| Cape Breton..... | 56,042 | 237,622 | 19,407 | 70,262 |
| Colchester—East Hants..... | 36,500 | 160,989 | 5,793 | 23,602 |
| Pictou County..... | 19,185 | 55,707 ² | 5,118 | 24,216 |
| Ontario County Library Co-operatives— | | | | |
| Bruce..... | 14,300 | 26,673 | 2,678 | 7,620 |
| Elgin..... | 20,292 | 35,765 | 4,373 | 13,501 |
| Essex..... | 21,916 | 25,822 | 6,124 | 22,106 |
| Huron..... | 25,878 | 44,867 | 6,161 | 19,777 |
| Kent..... | 16,914 | 26,886 | 3,886 | 20,238 |
| Lambton..... | 22,352 | 179,634 | 4,281 | 13,735 |
| Middlesex..... | 26,835 | 46,957 | 5,706 | 16,314 |
| Oxford..... | 16,607 | 181,035 | 3,967 | 14,378 |
| Peel..... | 10,376 | .. | 3,535 | 10,518 |
| Rainy River ⁴ | 19,350 | 107,779 | 5,105 | 14,924 |
| Simcoe..... | 16,451 | 42,400 | 9,310 | 37,989 |
| Thunder Bay District..... | 9,242 | 55,618 | 2,629 | 10,176 |
| Victoria..... | 19,268 | 185,000 | .. | 8,000 |
| Waterloo ⁵ | 21,453 | 187,422 | 6,949 | 30,475 |
| Welland..... | | | | |
| Wentworth..... | | | | |
| Saskatchewan Regional Libraries— | | | | |
| North-Central Saskatchewan..... | 23,993 | 96,656 | 9,541 | 34,965 |

For footnotes, see end of table, p. 372.

2.—Summary Statistics of Libraries Organized for Regional Collaboration 1956—concluded

| Regional Organization | Volumes | Circulation | Expenditure | |
|--|------------------|------------------------------------|-------------------|-----------|
| | | | Book Stock | Total |
| | No. | No. | \$ | \$ |
| Alberta Regional Libraries— | | | | |
| Barrhead..... | 9,550 | 28,760 | 4,007 | 7,077 |
| Lacombe..... | 23,000 | 80,000 | 8,643 | 31,766 |
| British Columbia Regional Libraries— | | | | |
| Fraser Valley..... | 102,627 | 688,368 | 27,667 | 117,353 |
| Okanagan..... | 72,514 | 402,566 | 19,316 | 77,886 |
| Vancouver Island..... | 73,432 | 415,338 | 21,059 | 99,466 |
| | Branch Libraries | School Deposits and Other Agencies | Population Served | Borrowers |
| | No. | No. | No. | No. |
| Newfoundland Regional Libraries ¹ | 40 | 325 | 150,000 | 40,000 |
| Prince Edward Island Libraries..... | 24 | 3 | 98,000 | 7,380 |
| Nova Scotia Regional Libraries— | | | | |
| Annapolis Valley..... | 9 | 161 | 45,389 | 10,409 |
| Cape Breton..... | 9 | 131 | 116,000 | 23,312 |
| Colchester—East Hants..... | 5 | 169 | 43,656 | .. |
| Pictou County..... | .. | 146 | 40,000 | 15,514 |
| Ontario County Library Co-operatives— | | | | |
| Bruce..... | 20 | 140 | 40,331 | .. |
| Elgin..... | 13 | 205 | 35,855 | 11,125 |
| Essex..... | 11 | 73 | 106,071 | .. |
| Huron..... | 33 | 231 | 47,403 | .. |
| Kent..... | 10 | 202 | 63,000 | .. |
| Lambton..... | 19 | 186 | 40,000 | .. |
| Middlesex..... | 26 | 110 | 70,000 | 9,500 |
| Oxford..... | 18 | 160 | 63,181 | 14,976 |
| Peel..... | 15 | 68 | .. | .. |
| Rainy River ⁴ | .. | .. | .. | .. |
| Simcoe..... | 18 | 212 | 112,409 | .. |
| Thunder Bay District..... | 13 | 103 | 60,000 | .. |
| Victoria..... | 10 | 102 | 18,000 | .. |
| Waterloo ⁵ | .. | .. | 48,604 | .. |
| Welland..... | .. | .. | .. | .. |
| Wentworth..... | 5 | 105 | 70,055 | .. |
| Saskatchewan Regional Libraries— | | | | |
| North-Central Saskatchewan..... | 11 | 10 | 31,187 | 7,008 |
| Alberta Regional Libraries— | | | | |
| Barrhead..... | 6 | 17 | 8,300 | 1,860 |
| Lacombe..... | 8 | 15 | 15,000 | 1,450 |
| British Columbia Regional Libraries— | | | | |
| Fraser Valley..... | 12 | 308 | 173,733 | 46,544 |
| Okanagan..... | 56 | 62 | 72,477 | 25,029 |
| Vancouver Island..... | 21 | 224 | 77,477 | 13,698 |

¹ Includes figures for Newfoundland Travelling Library.
² Excludes juvenile libraries.

³ Organized in November 1956.

⁴ Includes figures for Gosling, Regional, and
⁵ Service by contract with Thunder Bay District.

Academic Libraries.—The 1953 Survey of Libraries covered 263 academic libraries which contained about 7,630,000 volumes, employed 545 full-time and 615 part-time personnel. Of all the employees 290 were trained in library science.

Government Libraries.—The 102 Federal Government libraries covered by the 1953 Survey reported 2,067,430 volumes and the 99 provincial government libraries reported 1,389,516 volumes. The federal libraries employed 345 full-time staff and the provincial libraries 162.

Business, Professional and Technical Libraries.—The 131 libraries operated by business, professional and technical societies and establishments in 1953 reported 774,629 volumes in stock. Two-thirds of these libraries reported full-time staff numbering 253 persons.

Section 6.—Canada and the United Nations Educational, Scientific and Cultural Organization

In the words of its constitution, the purpose of the United Nations Educational, Scientific and Cultural Organization (UNESCO) is "to contribute to peace and security by promoting collaboration among the nations through education, science and culture in order to further universal respect for justice, for the rule of law, for human rights and fundamental freedoms".

Total membership in the Organization at the beginning of 1957 numbered 79 states. The structure of the Organization includes three principal organs: (a) the General Conference; (b) the Executive Board; and (c) the Secretariat. The General Conference is the policy-making body of the Organization. It meets every two years and its main functions are to consider applications for membership, elect the Executive Board, plan the program and approve the budget for the ensuing two-year period.

At the General Conference held in New Delhi, India, from Nov. 5 to Dec. 5, 1956, decision was reached to launch three major projects: the extension of primary education in Latin America; scientific research on arid lands; and mutual appreciation of the cultural values of the Occident and the Orient. The Conference approved a total budget of \$22,679,000 for the years 1957 and 1958 to be applied to common services and administrative expenses as well as to UNESCO's seven program areas—education, natural sciences, social sciences, cultural activities, mass communications, technical assistance and exchange of persons. Canada's share in this budget is \$685,485 or about 3 p.c. of the assessment level.

Both governmental and non-governmental organizations in Canada are interested in, and contribute to, UNESCO program activities. During the period under review, Canadians either as individuals or as organizations attended a number of UNESCO-sponsored meetings and seminars, contributed information to a variety of UNESCO publications and participated in UNESCO technical assistance missions and projects. Several UNESCO travelling art exhibitions toured Canada; International Museums Week was observed by museums and galleries across the country, and training programs were organized for Fellows from under-developed countries.

In the absence of a National Commission for UNESCO, the Department of External Affairs has carried out the essential liaison functions between the various official and voluntary agencies concerned with the Organization's program. However, pursuant to Sect. 8 of the Act passed at the Fifth Session of the Twenty-second Parliament for the establishment of a Canada Council for the Encouragement of the Arts, Humanities and Social Sciences, the Governor in Council assigned to the Canada Council certain functions in relation to UNESCO and the Canada Council, on Aug. 21, 1957, announced the establishment of a National Commission for UNESCO.

PART III.—SCIENTIFIC AND INDUSTRIAL RESEARCH

Section 1.—The National Research Council*

Forty years of scientific research on a national basis have made it possible for Canada to keep pace with the exploitation of its own vast resources as well as with the accelerated economic development noticeable in all parts of the world.

History and Organization.—Organized research in Canada on a national basis dates from 1916 when the Government of Canada established the Honorary Advisory Council for Scientific and Industrial Research under a Committee of the Privy Council. Provision was made for the planning and integration of research work, organization of co-operative investigations, postgraduate training of research workers, and prosecution of research through grants-in-aid to university professors. This was the basis of the Council's work from 1916 to 1924.

* Prepared by John R. Kohr, Public Relations Branch, National Research Council of Canada, Ottawa.

A Special Committee of Parliament, appointed to study a recommendation for establishing national laboratories, endorsed the proposal and the Research Council Act was revised by Parliament in 1924. Temporary laboratories were secured and research on utilization of magnesian limestones for refractories was carried out so successfully that a wartime industry, established during World War I, was re-established on a large scale. As a result of this achievement the Government, in 1929-30, provided funds for new laboratories.

The National Research Building on Sussex Drive, Ottawa, was opened in 1932; and in 1939 construction was begun of the aerodynamics building on a 130-acre site on the Montreal Road just east of the city. Later, other buildings were erected on this site, including woodworking and metalworking shops and separate laboratories for research on engines, gas and oil, hydraulics and structures. These facilities have since been enlarged and extended and new buildings have been provided for engineering, low-temperature studies, and high-speed aerodynamics. In 1952 a cosmic ray laboratory, a thermodynamics building, and a large structure to house the Division of Applied Chemistry were added; in 1953 a modern laboratory was constructed in one of the Montreal Road service tunnels for the exact measurement of surveyors' tapes and the Building Research Centre was completed. The same year development began on a new 250-acre site on the opposite side of the road, where the new headquarters for the Radio and Electrical Engineering Division was constructed. An underpass connects the two areas.

A Prairie Regional Laboratory built on the University of Saskatchewan campus has been in operation since June 1948 and an Atlantic Regional Laboratory, on the campus of Dalhousie University at Halifax, N.S., was opened in June 1952. The Division of Building Research has established one of the most northerly building research stations in the world at Norman Wells, N.W.T. Completing its long-term plan for regional activities, the Division has also established a small Pacific Regional Station at Vancouver, in co-operation with the British Columbia Research Council.

The National Research Council consists of the President, two Vice-Presidents (Scientific), one Vice-President (Administration) and 17 other members, each of the latter group being appointed for a term of three years and chosen to represent industry, labour or research in one of the basic natural sciences. Many of the members are drawn from the science departments of Canadian universities.

The Council's scientific and engineering activities are organized in nine divisions and two regional laboratories, each with its own director. Five laboratory divisions are concerned with fundamental and applied studies in the natural sciences: applied biology, applied and pure chemistry, and applied and pure physics. Three others are devoted chiefly to engineering work—building research, mechanical engineering, which includes aeronautics and hydraulics, and radio and electrical engineering. The Division of Medical Research has no laboratories but awards grants-in-aid and fellowships tenable chiefly in the medical schools of Canadian universities.

Links with Industry.—In addition to its basic research functions, the Council operates a Technical Information Service. Through a trained research staff, using the extensive library facilities available to the Council, it is usually possible to provide any required information at very short notice. A free and constant flow of personnel and information is maintained between the Council laboratories and industrial laboratories, the aim being to have Canadian industry use the Council's laboratories just as the units of a large company use their own laboratories as a source of scientific information and assistance. The Council also undertakes for any firm, under contract, research problems that cannot be solved by private consulting and testing laboratories and, in return, obtains assistance from many companies. The Council has long-standing and intimate contacts of this co-operative kind with many Canadian industries in various fields.

Associate committees were established by the National Research Council early in its history and have been continued to date. Hundreds of specialists have accepted invitations from the Council to serve on committees and have brought their knowledge and experience

to bear on the solution of research problems put before them. Members of committees give their time and effort to these special studies without charge and their assistance is a source of great strength to the Council.

Foundation Aspects.—Assisted research grants have been made by the Council since its inception in 1916. These awards are given to heads of university science departments to purchase needed equipment and to employ junior helpers, usually students. Aid of this kind has been of considerable assistance in enabling the universities to put into operation the excellent graduate schools that now exist in Canada. In 1956-57 more than \$3,500,000 was provided out of Council funds for basic research at Canadian universities.

Scholarships and grants in aid of research are awarded annually by the National Research Council. Scholarships awarded in science and engineering include Bursaries and Studentships which have values of \$800 and \$1,200 respectively for the academic year, to which a summer supplement of \$800 may be added. In addition, Special Scholarships valued at \$2,000 a year and Postdoctorate Overseas Fellowships at \$2,700 (single) and \$3,500 (married) are offered. The Council also offers Graduate Medical Research Fellowships valued at from \$2,000 to \$5,000, depending upon academic qualifications and research experience. A limited number of Medical Research Associates are also appointed to research positions in the medical schools of Canadian universities. Graduate Dental Research Fellowships are also available. In 1956-57, 310 different awards were made, totalling \$450,450.

Since 1948, the National Research Council has awarded Postdoctorate Fellowships, in open competition to Canadians and nationals of other countries, which are tenable in the Council's own laboratories. The diversity of training and experience brought to the laboratories by these keen young scientists has had such a stimulating effect on the research effort that the program has been further expanded in recent years; Fellowships are now tenable in science departments of Canadian universities and in the laboratories of other Federal Government Departments, such as Agriculture, Mines and Technical Surveys, and National Health and Welfare. Almost 200 of these awards are being held at the present time, mostly in the fields of chemistry, physics and biology.

Principal Activities in 1956-57*

The activities of each Division are described in outline only, with occasional brief examples. The work of the Atlantic and Prairie Regional Laboratories is treated separately at pp. 379-380.

Applied Biology.—Much of the work of this Division is undertaken in co-operation with industry or for Government agencies, although some fundamental work is done on the metabolism and chemical composition of living organisms.

Milder pulping agents have increased pulp yields by producing semi-chemical pulps which have a higher proportion of the hemicellulose material of the wood. Therefore the structure, properties and behaviour of the hemicelluloses of common pulpwoods are being examined so that the pulp and paper industry may more readily solve its manufacturing problems when using the new semi-chemical pulps. So far, the hemicelluloses of jack-pine, white spruce and beech wood have been studied.

Because blue-green algae have sometimes been implicated in deaths of cattle and other animals, different species and strains of algae have been examined. Two out of nine strains of a single species proved highly toxic; twelve other species or strains were non-toxic. The toxin appears to be produced inside the algal cells and must be released before it is fully effective. Environmental factors greatly affect both the production and release of the toxic material.

Other work concerns the liquid immersion freezing of poultry; the effects of freezing on the enzymes in milk; the lipoproteins of hen egg yolk; and the effects of different bacteria on casein, the principal protein in milk.

* Of particular current interest in the field of scientific research is the International Geophysical Year. Canada's part in the program is dealt with in detail at pp. 35-38.

Applied Chemistry.—The Division of Applied Chemistry is concerned with the best uses of Canadian resources and with chemical problems of wide general interest.

The oxidation of iron and its alloys is an extremely complex problem and is estimated to cost Canada more than \$3,000,000 annually. Studies are being made of the mechanism of corrosion in aqueous solutions and of the oxidation of metals at high temperatures. At the same time, while the corrosion group is working to *prevent* oxidation, several other groups are endeavouring to *enhance* the oxidation of certain chemicals such as ethylene. The product is a very active chemical—ethylene oxide—and the starting point of many other useful materials such as antifreeze. A calcium silver catalyst shows considerable promise.

Work on rain repellents for aircraft wind screens has been brought to a conclusion with the development of a satisfactory one-coat material suitable for most applications. Lignin has been successfully substituted for carbon black in preparing a tire-tread stock. Work on thermoplastics and rubber adhesives for bonding rubber to metal is being continued.

One of the functions of the textile laboratory is to advise the Canadian Research Institute of Launderers and Cleaners, with which the Council has a formal agreement. The aim of this co-operation is to maintain a high standard of operation in Canadian cleaning establishments. Assistance is also given to government departments on such problems as the moth-proofing, rot-proofing and moisture-proofing of textiles. Synthetic detergents are also being examined.

Other industrial problems under investigation include the possible application of the spouted bed technique to industrial drying problems. A pilot model of a sedimentation device has been constructed and successfully operated. The Applied Chemistry Division also works on colloids, analytical chemistry, high polymer chemistry, metallurgical chemistry and physical organic chemistry.

Pure Chemistry.—The Division of Pure Chemistry is organized around a nucleus of outstanding Canadian chemists who direct about twice their own number of young postdoctorate Fellows from all over the world. The work is long-range and fundamental. The products of pure curiosity seem very far removed from ordinary life but the Division's experts are frequently invited to speak to groups of applied chemists and other scientists employed in Canadian industry. They also lecture in universities.

There are thirteen sections in the Division: organic chemistry, mostly on the structure of alkaloids; organic spectrochemistry; organic synthesis; chemical kinetics and photochemistry; mass spectrometry; molecular spectroscopy; surface chemistry; thermochemistry; activated carbon, inorganic and general chemistry; intermolecular forces and physical properties; fibre research; chemistry of fats and oils; and general physical chemistry.

Applied Physics.—The work on applied physics is divided between research projects likely to have a practical value and the continual development of the fundamental standards on which measurements generally are based. All the fundamental physical standards for Canada are housed and serviced in this Division.

The various means developed of decreasing noise from suction rolls in paper mills are now receiving full-scale factory trials. Also, investigation into anomalous drying of paper in the mill has led to recommendations of corrective measures which are now being tested.

Experiments to determine the absolute value of the acceleration due to gravity ("g"), measured by timing the rate of fall of a calibrated rule, show excellent reproducibility. Wavelengths proposed as the new international standard of length are being investigated and new sources for more precise wavelengths are being developed. Friction of inflated rubber tires on ice is being measured and investigations are being continued to develop a good method for testing the worth of winter garments in cold winds.

Mapping experiments carried out under the auspices of the International Society of Photogrammetry were directed by the Photogrammetric Research Section. The airborne-controlled method of aerial triangulation developed by the Section has been studied over hilly terrain and found to be both accurate and efficient even under such difficult conditions. Investigation of radar profiles was extended to high altitudes—from 25,000 to 30,000 feet. Non-topographical photogrammetry is being advanced by the design of distortion-free lenses for short-distance photography.

In connection with X-rays and nuclear radiations, new instruments have been developed which have eliminated the difficulties of interpretation encountered when output measurements of Cobalt-60 Beam Therapy Units are made with commercial instruments.

Pure Physics.—Investigation is under way on cosmic rays, solid state physics, spectroscopy, X-ray diffraction and theoretical physics. Although the findings on various fundamental problems do not have immediate application, they advance the frontiers of knowledge and supply the basis for further progress in the applied fields.

Four cosmic ray stations have been set up to operate throughout the International Geophysical Year which started July 1957—at Resolute in the Arctic, at Churchill, Man., at Ottawa, Ont., and a new laboratory on top of Sulphur Mountain near Banff, Alta.

A recent highlight in connection with low temperature and solid state physics was the international conference on Electron Transport in Metals and Solids, sponsored by the International Union of Pure and Applied Physics and held at the National Research Council Building. The proceedings were published as a special issue of the *Canadian Journal of Physics*.

Investigation of the spectra of simple molecules continues to form the major portion of the work on spectroscopy, but a start has also been made on studies of atomic spectra.

Programs of crystallographic calculations, devised for the electronic computer FERUT, are now in routine use and are being made available to other X-ray crystallographic laboratories in Canada. Additional powder patterns have been included in the standard file and a number of samples have been examined by the X-ray diffraction powder method for other laboratories. An improved calculation of the electrostatic correction for white dwarf stars has been made with the help of the method of Bohm and Pines for the collective motion of electrons in metals.

Building Research.—Recent field work has included: co-operation in Western Canada with oil companies and others in a pioneer study of access over muskeg; studies of transformer noise which often distinguishes electrical substations, a problem that has been solved in close association with The Hydro-Electric Power Commission of Ontario; housing studies in association with Central Mortgage and Housing Corporation, which the Division continues to serve as research wing for technical housing problems. Laboratory investigations have been made recently on double windows and, to develop economical standard roof-truss design, on wooden roof trusses for small houses. A chimney laboratory has been placed in operation.

The technical and secretarial work for the National Building Code is carried out by the Division for the Associate Committee on the National Building Code. A short version of the main Code has been published in pocket-book form and more than 7,000 copies have so far been distributed. A French translation of the main Code is now available.

Jointly with the Trans-Canada Highway Division of the Federal Department of Public Works, a start has been made on avalanche research and prevention in the Rocky Mountains; in co-operation with the Alberta Department of Public Works, the Division helped in the acoustical design of the two new auditoria that have been built in Calgary and Edmonton; problems of winter construction have been studied in close association with the National Committee established for that purpose; basic studies on soil mechanics and on snow and ice are in progress.

A new suite of laboratories for paint research, a new sound chamber for studies of building acoustics and a new fire research building now under construction will extend the work of the Division.

Mechanical Engineering.—In addition to mechanical engineering, this Division embraces certain phases of hydraulic engineering and naval architecture and many branches of aeronautical engineering. The Division continues to work with the aircraft, shipbuilding, heavy engineering, chemical, and pulp and paper industries and to undertake work for government departments. It also functions as a source of supply of trained engineers and technicians for industry.

The Aerodynamics Section is devoted largely to classified defence projects. In particular, the low-speed and high-speed wind tunnels are engaged continuously on tests of models of several new aircraft under development by Canadian companies.

Work continued on several St. Lawrence Seaway projects to obtain design information in connection with navigation locks and river improvements. In the ship laboratory, the size of ships under study varied from naval escort vessels to small landing boats; problems included propeller design, vibration analysis, cooling water system analysis, and manoeuvring. Full-scale trials were carried out on a number of ships.

The major design effort of the Gas Dynamics Section was on a gas turbine unit suitable for railway traction. The engine laboratory had three principal projects: exhaust reheat of turbojet engines, anti-icing and cold tests of aircraft gas turbines, and improvement of test facilities. The main work of the low-temperature laboratory was directed to development of rotor de-icing equipment for helicopters. Projects of the fuels and lubricants laboratory included work on the evaporation of fuel sprays as applied to combustion of jet fuels, thermal stability of naval boiler fuels, and development of automotive brake fluids.

In the structures laboratory, the major effort was directed to the problem of swept wing aircraft flutter. Other fundamental work was done on the resistance of ship propellers to impact loading and on a design for airport beacon towers which could suffer decapitation without destroying the impacting aircraft. At the request of the Department of National Defence, the engineering laboratory developed and constructed an amphibious motor vehicle for safe travel on frozen lakes where thin patches of ice might not support the weight of an ordinary vehicle. The instruments laboratory designed and developed special instrumentation as required by other laboratories of the Division and, on occasion, by outside organizations.

Radio and Electrical Engineering.—About half of the Division's work consists of defence projects. The remainder of the program, on which information may be released, includes problems in electronics, radiophysics and electrical engineering. Where possible, emphasis is placed on applications of interest to Canadian industry. In the field of electronics the main projects include a remote fog-alarm control; a fog detection device; transistorized control of buoy lights; underwater television; location of crashed aircraft; etc. The motor vessel *Radel II* is an invaluable asset as a floating laboratory to test various radar devices and techniques. Electronic music is also a highly fruitful field of inquiry: a tape recorder has been designed especially for the production of new forms of music; an improved model of the electronic monophonic instrument, featuring improved pitch flexibility, is being built; development of the touch-sensitive organ is being continued.

The two sections of the Division most intimately connected with the International Geophysical Year are: upper atmosphere research which deals chiefly with observations of meteor showers; and the solar noise observatory where radio emissions from the sun have been observed daily for the tenth successive year.

Static electricity explosion hazards, instrument transformer calibration, high voltage research, dielectric research, and detection of flaws in paper are some of the projects in the electrical engineering field.

Medical Research.*—The chief function of the Medical Research Division, which marked its tenth anniversary in 1956, is to make grants and to award fellowships in the field of medicine. For the year 1957-58, 151 grants totalling over \$500,000 were made to individual investigators in Canadian hospitals and universities. Twenty-one Graduate Medical Research Fellowships were awarded for the same year to enable medical graduates to obtain further training in fundamental research.

In addition to seven consolidated grants, 145 grants-in-aid of research to the amount of \$652,056 were awarded in 1955. Forty-one of these grants were for new projects. Medical research was initiated and stimulated by 22 grants given to 20 investigators who had not been supported previously by the Division. More than 170 reports on work thus supported were reviewed.

A new category of Medical Research Associate has been created. The candidate, who must have a doctorate—though not necessarily in medicine—is nominated by a university which must undertake to place him on the faculty and provide adequate facilities for his work. His teaching duties must be limited and he may expect to retain his appointment indefinitely, subject to the satisfaction of the Council and of the university. Six appointments to this new category have been made.

Atlantic Regional Laboratory.—The Atlantic Regional Laboratory studies the preservation and use of food products and some of the problems encountered by secondary industries in the area, such as the storage of several varieties of potatoes, drying of rock-wood, deposition of pitch from sulphite pulp mills in the Atlantic Provinces, and the manufacture of iron and steel. The explanation of deposition of pitch in pulp mills still remains doubtful and requires further study.

The manufacture of steel is a problem in the Atlantic region because high-phosphate ore from Newfoundland is being smelted by means of a high-sulphur coal from Cape Breton. Technical problems are many and are being attacked through studies on oxidation of carbon in steel; factors affecting the equilibria of various constituents, especially phosphorus, between molten iron and slag; and the nature and behaviour of the gases encountered in making steel. The resulting basic slag is high in both phosphorus and calcium and should therefore have a potential use as fertilizer. The main technical problem here is a cheap method of breaking up the slag.

Isinglass has been extracted from cod swim bladders and prepared in a highly purified state; it differs only slightly from similar material from mammalian connective tissues. A systematic survey of the chemical composition of peat from the larger bogs in the Atlantic Provinces is almost finished. This will permit the construction of profiles for various bogs and furnish a sound basis for estimating the resources available. The nature of slime in the 'white' water of pulp mills has been established; it is caused by the growth of numerous fungi associated with symbiotic bacteria. Commercial inhibitors were highly effective.

Prairie Regional Laboratory.—The applied work of the Laboratory is designed to promote and expand the use of agricultural products of the prairie region. Fundamental work includes studies on the properties and reactions of starches, sugars, proteins, fats and oils, and other plant constituents; on the physiology and biochemistry of living plants and of micro-organisms; and on the development of fermentations using a wide variety of nutrients.

Work on producing building boards from straw is now largely of an advisory nature. A local firm is currently building a \$3,000,000 plant in Saskatoon to produce fibreboard and hard board. Another successful investigation has resulted in the devising of a sedimentation method for classifying elevator dusts which is more accurate than the screening methods previously used. A new antifungal antibiotic has been isolated and found effective in large dilution against growth of yeasts, smuts and rust spores. Progress is being made in producing commercially important ergot alkaloids by cultivating ergot fungus in synthetic media.

* See also pp. 386-388.

An attempt is being made to produce protein feed supplements by growing micro-organisms on waste sulphite liquor or molasses media. Also, recent work has shown that vital gluten may be prepared from some low-grade wheat flours.

Administration.—The administration of the foregoing laboratories has now been organized as a Division of Administration and Awards, which exists only to serve the scientist. The five service units of this Division are: Awards and Committee Services (Awards, Committees, Publications, Research Journals); Administrative Services (General Services, Purchasing, Personnel); Information Services (Technical Information Service, Library, Public Relations Branch, and Liaison Offices in Ottawa, Washington, U.S.A., and London, England); Plant Engineering Services; and Legal and Patent Services. The latter Division works closely with Canadian Patents and Development Limited (see p. 88). An expert on economic research acts as special assistant to the Assistant Director, Information Services.

Section 2.—Research in the Atomic Field*

Atomic Energy of Canada Limited (AECL), a government-owned Crown company, operates Canada's main atomic energy centre near the town of Chalk River, Ont., 130 miles west-northwest of Ottawa. The company has a nine-man Board of Directors that includes representatives of private industry, public and private power companies, and the universities, and is engaged in four main activities: (1) the development of technology for economic atomic power; (2) fundamental scientific research in the atomic energy field; (3) operation of nuclear reactors and separation of nuclear fuels (plutonium and uranium-233); and (4) production of radioactive isotopes and associated equipment, such as Cobalt-60 Beam Therapy Units for the treatment of cancer.

The company is collaborating with the Canadian General Electric Company Limited and The Hydro-Electric Power Commission of Ontario (HEPC) in the building of an experimental atomic power station, to be known as NPD (Nuclear Power Demonstration), near Des Joachims, 12 miles up the Ottawa River from the Chalk River plant. The decision to build NPD followed a power reactor feasibility study, started late in 1953 and carried out by engineers of AECL, HEPC, the Montreal Engineering Company Limited, the Shawinigan Water Power Company, the British Columbia Electric Company Limited, and the Brazilian Traction, Light and Power Company Limited. The power reactor is expected to generate 20,000 kw. of electricity. The Nuclear Power Branch at Chalk River, the staff of which was recruited from several power-producing commissions and companies, has been carrying out preliminary design studies for a large atomic power station with an output of 200,000 kw. of electricity.

To ensure that the various publicly and privately owned utilities are kept fully informed of the progress being made, the Government set up in 1954 an Advisory Committee on Atomic Power Development on which the various power producers throughout the country are represented. The committee, which meets periodically at Chalk River, studies the research results obtained at that centre, receives complete information on the NPD station, and assists in evaluating the economic importance of atomic power in various regions of the country.

In 1955 an "industrial assistance office" was set up at Chalk River to create as wide as possible an interest on the part of private companies in the possible applications of atomic energy in general and of atomic power in particular.

Development of the Atomic Energy Program.—The program had its beginning in 1942 when it was decided to set up a Canadian-United Kingdom project in Canada, under the administrative control of the National Research Council of Canada. British, French and other European scientists doing nuclear research moved to North America early in World War II to work on an atomic weapon—the possibility of which became evident when O. Hahn and S. Strassman in Berlin, Germany, announced the first recognition of nuclear fission in 1939.

* Prepared by Clyde Kennedy, Public Relations Officer, Atomic Energy of Canada Limited, Chalk River, Ont.

The United States project used the more readily available graphite to moderate its reactors and the project in Canada was assigned the task of trying heavy water as a moderator so that all possible routes to the production of plutonium for bombs would be tried. In 1944 the Canadian-United Kingdom team moved from the University of Montreal, where preliminary studies had been carried out, to the site which was established on the Ottawa River, about five miles from the town of Chalk River.

On Sept. 5, 1945, ZEEP went into operation. It operated at a mere 10 watts but it made possible a study of the value of a heavy water natural uranium system and it has continued to be useful for studies of fuel rod arrangements. Two years later on July 22, 1947, the NRX reactor went into operation. It was then, and so remained for several years, the most powerful research reactor in the world. The NRX reactor still plays a leading role by making possible important experiments relating to the development of atomic power, enabling the fundamental properties of atoms and nuclei to be determined, and producing radioactive isotopes of high specific activity (i.e., the relation of the amount of radiation to a given weight of material). Both the United States and the United Kingdom are, like AECL, using NRX for atomic power studies. This reactor now operates at a power output of 40,000 kw. (a measure of the heat produced).

In 1946 the United Kingdom established its own atomic energy program and in the same year the Atomic Energy Control Act was passed in Canada "to make provision for the control and supervision of the development, application and use of atomic energy". This Act created the Atomic Energy Control Board.

The Chalk River project was operated on behalf of the Atomic Energy Control Board by the National Research Council until 1952 when a Crown corporation, Atomic Energy of Canada Limited, was established to operate the project on behalf of the Board. A 1954 amendment to the Atomic Energy Control Act requires AECL to report directly to the Cabinet Minister who is Chairman of the Committee of the Privy Council on Scientific and Industrial Research. The Atomic Energy Control Board continues to report to the same Minister.

The next stage in the Canadian program, following the creation of a separate United Kingdom program, consisted mainly of carrying on fundamental research at Chalk River, using the facilities of the two natural uranium heavy-water reactors. The need for a source of higher neutron flux for fundamental research and for engineering studies resulted in the decision in 1951 to build another natural uranium heavy-water reactor known as NRU. This reactor, placed in operation on Nov. 3, 1957, has a heat output of 200,000 kw., five times that of NRX. The NRU reactor has three main functions: the production of significant quantities of plutonium; the provision of advanced experimental facilities for fundamental research and for the testing of power station fuel-coolant systems; and the production of radioactive isotopes of high specific activity, particularly Cobalt-60 which is used in the treatment of cancer.

Activities of the Chalk River Project.—The principal function of this Project is to carry out fundamental research and preliminary engineering development. The Project provides the data which utilities and manufacturers need for a nuclear power program. The work is carried out by an Administration and Operations group and a Research and Development group. The former is responsible for general administration, the operation of the nuclear reactors and associated chemical process plants, the construction and maintenance of buildings, the provision of steam and auxiliary power for the project, and the correlation of the experience of the operating branches with the results obtained by the research branches to produce engineering information for major projects handled by outside organizations.

The activities of the Research and Development group which cover a wide field of fundamental and applied research in physics, chemistry, metallurgy, and biology, are carried out by four divisions: Reactor Research and Development, Chemistry and Metallurgy, Physics, Biology. These divisions conduct short-term and long-term investigations—the short term to provide the basic information required to design and operate

the first Canadian power reactors. A wide variety of possible reactor systems make it necessary to conduct extensive investigations, both mathematical and experimental, to determine which are likely to be the most economic and efficient. The longer term work, though mainly the responsibility of physicists and biologists, also involves the chemistry of substances which have become important (or have come into existence) only since the development of atomic energy.

The Reactor Research and Development Division is engaged in experiments and calculations required for the design of nuclear reactors for atomic power stations. Control systems for such plants and for the Chalk River reactors are being studied. The ZEEP reactor has been in constant use in determining the reactive efficiency and other characteristics of various fuel element arrangements. Many fuel samples have been tested in the NRX reactor under conditions simulating those which will exist in power plants. These experiments are providing essential information on the behaviour and suitability of different physical forms of the fuel, or different kinds of cladding to prevent corrosion of the fuel, and of heat transfer characteristics.

The Chemistry and Metallurgy Division includes a number of research groups which are making a co-ordinated attack on the problems of the preparation and processing of reactor fuel. The division develops fuel elements for the NRX and NRU reactors and for power reactors. Much of the work is being done in collaboration with the Department of Mines and Technical Surveys.

In the Physics Division work has continued on the study of nuclear structure, using the experimental facilities of the NRX reactor and the particle accelerators, such as the 3,000,000 electron volt Van de Graaff Generator. A 10-million volt machine, known as a Tandem Accelerator, will be installed at Chalk River in 1958. This new type machine, which consists of two Van de Graaff accelerators placed end to end horizontally, will make it possible to carry out research programs on heavy nuclei with an accuracy and efficiency never before possible.

The activities of the Biology Division include the control of radiation hazards, the development of decontamination methods, the study of uses of radioactive isotopes in biological research, and the investigation of the effects of radiation on living organisms.

Canada pioneered in the production of radioactive isotopes and the Chalk River project now produces a wide variety of isotopes for use in industry, agriculture and medicine. The high flux of NRX enabled AECL to produce relatively large quantities of Cobalt-60, with a high specific activity, for use in cancer therapy units. The combined production of NRX and NRU will be required to satisfy the demand from many countries for Canadian units.

The marketing of radioactive isotopes and associated equipment is handled by the Commercial Products Division of AECL with headquarters in Ottawa. Seventy-six cancer treatment machines, designed and built by the Division, had been installed in 13 countries by mid-1957.

Section 3.—Other Scientific and Industrial Research Facilities

Aside from the work of the National Research Council and Atomic Energy of Canada Limited, Canadian research is carried on by various federal agencies, provincial organizations, universities and industries. Several provinces in Canada have established Provincial Research Councils to stimulate and support research on problems having special provincial significance. The universities of course form an extremely important part of the Canadian pattern of research. Much of their work is along fundamental lines but practical problems are not neglected, especially those of regional interest.

All three types of institutions—federal, provincial and university organizations—have an interest in problems of industrial significance: this is part of the current Canadian pattern of research. Though many Canadian industries now possess research facilities—some of them quite extensive—the main bulk of industrial research to date has been done under government auspices.

Thus the unique problems of the country, particularly its large area coupled with a small population, have led to a typically Canadian organization of research, of which a very strong associate committee system is perhaps the most distinctive feature.

Subsection 1.—Federal Organizations

Although research by industrial concerns has been slow to develop in Canada, government research has expanded rapidly, at first because of the need for speeding up the production of raw materials, which were for many years the basis of Canada's export trade, and secondly because of the more recent interest in the processing of these raw materials and the necessity of meeting the needs of national defence. Federal agencies involved in research include the Departments of Agriculture, Fisheries, Mines and Technical Surveys, National Defence, National Health and Welfare, Northern Affairs and National Resources, and Trade and Commerce; the National Research Council; and Crown corporations such as Atomic Energy of Canada Limited. A system of committees, with nation-wide representation, eliminates unnecessary duplication of work from these national research organizations.

The scientific work of the Department of Agriculture is described in Chapter IX of this volume, the work of the Defence Research Board in Chapter XXVIII, specialized work in scientific forest research in Chapter X, scientific services concerned with Canada's mineral resources conducted by the Department of Mines and Technical Surveys in Chapter XI, investigational work of the Department of Fisheries in Chapter XIII, research of the Canadian Wildlife Service of the Department of Northern Affairs and National Resources in Chapter I, the work of the National Research Council at pp. 373-380 and atomic research at pp. 380-382. The activities of the other federal agencies engaged in research are described briefly in the following paragraphs.

Department of National Health and Welfare.—The Department of National Health and Welfare supports both intramural and extramural research programs. Within the Department, the Food and Drug Directorate, Laboratory of Hygiene, Occupational Health Laboratory and various clinical services are engaged in scientific research in their respective fields. Special studies and surveys are conducted in social and medical economics by the Research Division. The extramural program consists of grants-in-aid of medical research at universities, hospitals and other research institutions from funds under the National Health Program. The Public Health Research Grant provides over \$500,000 per annum with allocations from the Mental Health, General Public Health, Tuberculosis, Cancer, Child and Maternal Health and Crippled Children's Grants making up approximately \$1,250,000 additional funds. To co-ordinate medical research programs, meetings are held by representatives of the National Research Council, Defence Research Board, Department of Veterans Affairs, National Cancer Institute and the Research Advisory Committee of the Department of National Health and Welfare. These have provided for reasonably clear definitions of the field of interest of each organization and have minimized uneconomical overlapping.

Grain Research Laboratory.—Rapid development of grain production in Western Canada led to the passing, in 1912, of the Canada Grain Act. This Act is administered by the Board of Grain Commissioners, a Crown corporation which reports to Parliament through the Minister of Trade and Commerce. The Board is responsible for control of the transportation, weighing, grading and warehousing of Canadian grain. Soon after its establishment, the Board encountered problems that required scientific study and a Grain Research Laboratory was established at Winnipeg, Man., in 1913.

The Grain Research Laboratory is the main centre of research on the chemistry of Canadian grains. It is well staffed and equipped to provide the service required to help maintain and expand domestic and foreign markets for all types of grain. The Laboratory collects and tests samples of various crops to obtain information on the current quality of all grains shipped during the crop year and prepares, annually, certain information

required by the Board for administering the Canada Grain Act. Fundamental research is also undertaken; the program is directed toward increased understanding of what constitutes quality in cereal grains and towards improving the methods of assessing quality.

Subsection 2.—Provincial Organizations

The fact that only a few provincial research organizations exist does not indicate a lack of interest in research by the provinces. Most provincial governments have university laboratories to consult, particularly about local industrial and agricultural problems. Agriculture is particularly well covered because of its great importance as an export industry; the network of Federal Department of Agriculture laboratories and Experimental Stations, together with agricultural colleges and provincial research councils, provides this industry with a very well developed research service.

Nova Scotia Research Foundation.—This body was created by the Government of Nova Scotia in 1946 to give its people additional scientific and technical assistance in finding new and better ways to utilize the resources of the forest, the sea, the farm, the mine and the process industries. To this end it seeks to correlate and further scientific work on local problems and available resources. It assists universities, colleges, research groups, industries, provincial and federal departments and individuals by loans of equipment, grants, scholarships, laboratory and summer assistants, library, cartographic, photogrammetric and translation services, and technical information. It has supported or collaborated in work on breeding new varieties of plants and root nodule bacteria; on antibiotics, poultry, blueberry culture, coal burning equipment, the constitution and gasification of coal, the non-destructive testing of mine equipment, the utilization of anhydrite, diatomite, fish waste, gypsum, seaweed, slag, slab wood and fertilizing materials. It has conducted geophysical, geological and seaweed surveys as well as forest aphides, forest ecology and genetic studies and assisted studies on the nutrient cycles of lakes, on X-ray crystallography, and on pressures in underground strata. Its Geophysical Division is now equipped to undertake all types of magnetometric, gravimetric, resistivity, seismic and electromagnetic explorations while its Technical Services Division provides an ever-increasing assistance to industries of the Province. During the summer of 1956, 93 people were engaged on 27 projects.

Saskatchewan Research Council.—The Saskatchewan Research Council was established in 1947 for "research and investigation in the physical sciences as they affect the economy of the Province of Saskatchewan, and such particular matters as may be brought to its attention from time to time by the Lieutenant-Governor in Council". The term 'physical sciences' is given a broad interpretation to include biology, geology and engineering. Within this field the Council undertakes basic and applied research.

Up to the present the Council has functioned mainly by granting funds for approved research projects and awarding scholarships at the University of Saskatchewan. It has also conducted a technical information service with the assistance of the National Research Council. It is now entering a new phase and, in addition to its former activities, will employ a full-time staff in a new laboratory building located on the University grounds.

Research Council of Alberta.—The Province of Alberta set up a Scientific and Industrial Research Council in 1921, the promotion of mineral development within the Province being the chief purpose leading to its establishment. The Council operates under an Act somewhat similar to that setting up the National Research Council and is financed by Provincial Government appropriations. The present program is directed to the application of basic and applied science toward the development of the natural resources of the Province. Investigations include studies on coal, the Athabasca oil sands, natural gas, geological research and surveys, soil surveys and irrigation research. The Council maintains a gasoline and oil testing laboratory and has a group of industrial engineers to provide scientific information to developing industry. The Council laboratories are located at the University of Alberta and include a \$750,000 research laboratory and pilot plant provided

by the Province of Alberta in 1955. The laboratories work in co-operation with the scientific departments of the University and the operations of the organization are controlled by a council of ten individuals representative of government, the University and industry. The various research projects are under the immediate supervision of advisory committees and the chairmen of these committees form the Technical Advisory Committee of the Council, the body responsible for the integration and operation of the scientific aspects of the program.

British Columbia Research Council.—The British Columbia Research Council, under the sponsorship of the B.C. Department of Trade and Industry, provides a scientific and engineering staff with laboratories at Vancouver to help British Columbia industries solve their technical problems. Its objective is to enable even the smallest firms to make use of modern technical knowledge and research to improve their competitive position in Canadian and world markets. The Council provides three classes of service: (1) a free information service in collaboration with the National Research Council; (2) assistance to specific firms at cost where information cannot be supplied from existing knowledge; and (3) at the Council's expense, research on problems of general value to the industrial development of the Province.

The Ontario Research Foundation.—The Ontario Research Foundation was established in 1928, and is financed by an endowment fund composed of subscriptions from manufacturers, corporations, private individuals, and a grant from the Provincial Government on a dollar-for-dollar basis with the other contributions. The Foundation carries on research to assist agriculture and industry in developing the natural resources of the Province. A study has been made of the physiography and climate of southern Ontario and also of the parasites found in wildlife in this Province. Many investigations have been undertaken in the industrial field and the Foundation is well equipped to work in metallurgy, textiles, chemistry and biochemistry. The services of the Foundation are at the disposal of industry on a fee basis, and consultative services, testing, short trial studies and long-term investigations have been undertaken for hundreds of firms. The work has resulted in better products and in more efficient processing. The Foundation administers a grant from the Provincial Government to support postgraduate scholarships and scientific research in the universities of Ontario.

The Hydro-Electric Power Commission of Ontario.—The Research Division of Ontario Hydro, with a present staff of 300, provides testing, investigation and research services for all phases of the utility's engineering design, construction work, and system operation and maintenance. The Division maintains a close liaison with other research organizations and power utilities, and staff members participate in the committee work of major technical societies and standardizing associations.

Electrical investigations pertain to methods of generating, transmitting, distributing and utilizing power, and to improvement in equipment for these purposes. Among the topics studied are problems of electrical insulation; system operation and control, and system protection against lightning; communications and telemetering; illumination; and power metering. Attention is given to the performance and efficiency of power equipment, to improved measuring techniques, and to means of minimizing the hazards of electric shock.

Among the structural and mechanical topics studied are the following: soil mechanics as related to foundations, roads, and earth dams and dykes; the physical properties of structural components and of numerous items such as conductor joints and line hardware; the mechanical performance and safety features of equipment and various types of machines; metals and metallurgy; welding materials, techniques and applications; atmospheric and underground corrosion of metals; stresses in materials and structures; noise and vibration conditions; and a variety of problems associated with the design, construction and maintenance of concrete structures, the application of masonry materials, and the production, placement and quality control of all concrete used.

In addition to chemical analyses and tests performed on a wide range of materials and products purchased, chemical research work is conducted with regard to such subjects as wood preservation, plastics applications, protective coatings, brush and weed control, lubrication, liquid electrical insulants, water treatment, thermal insulation, and corrosion prevention.

Other studies contributory and supplementary to the main branches of work are carried on in the fields of physics, biology, petrology and mathematics.

Subsection 3.—Medical Research

Medical Research Facilities.*—Support for medical research is provided by the Federal and Provincial Governments, by private foundations or corporations, by voluntary agencies which raise money by public subscription, and by universities and hospitals. From these sources there are available (a) research fellowships for training, (b) grants-in-aid for assistance in problems of a fundamental or clinical nature, (c) salaries for trained personnel, and (d) the necessary capital and running expenses for investigations which are of particular interest to government, hospital or pharmaceutical house.

The Department of National Health and the Department of National Defence maintain establishments in which research is done in well-equipped laboratories with highly trained personnel. The Department of Veterans Affairs encourages its staff to do research in its own hospitals; much of this concerns chronic illness, such as arthritis, atherosclerosis, metabolic and nutritional derangements.

Most of the fundamental medical problems are studied in medical schools through the system of grants-in-aid. Funds from the Federal Treasury are provided through the National Research Council, the Defence Research Board, and the Department of National Health. The National Research Council supports mainly research in the basic medical sciences—anatomy, physiology, biochemistry, pharmacology, bacteriology, pathology, and experimental surgery—but 20 p.c. of its grants are for clinical investigations. The Defence Research Board makes grants for studies in which it is particularly interested, such as shock, the preservation of blood and the use of blood substitutes, the effects of low temperatures and of radiation, etc. The Department of National Health and Welfare provides funds for research, available on the recommendation of provincial departments of health, in the following fields: public health research, tuberculosis control, child and maternal health, mental health, and general public health. It also gives assistance to the Canadian Arthritis and Rheumatism Society (which obtains other support by public subscription) and to the Ontario Heart Foundation (which derives its other resources from the Ontario Provincial Government). In addition the Department of National Health and Welfare makes available to the provinces cancer grants, out of which the provinces may supplement the funds for research which the National Cancer Institute receives from the Canadian Cancer Society. Thus the Department of National Health and Welfare is the Canadian agency which gives the greatest support to extramural research in medicine; its interest is primarily in those problems that have a direct bearing on the health of the nation rather than in fundamental research.

Universities receive funds for research also from provincial branches of the Canadian Cancer Society and from such government foundations as the Ontario Cancer Treatment and Research Foundation and the Alcoholism Research Foundation, from fraternal societies and clubs such as the Rotary Club, from the J. P. Bickell Foundation, the Atkinson Foundation, the Canadian Life Insurance Officers Association, the Muscular Dystrophy Associations of Canada, the Banting Research Foundation, the Multiple Sclerosis Society, pharmaceutical companies, etc.

With help from these diverse sources, active research programs are in progress in every one of the twelve Canadian medical schools. In certain of these there are special departments devoted to research, e.g., the Departments of Medical Research at the

* Prepared by Dr. G. H. Ettinger, Assistant Director, Division of Medical Research, National Research Council, Ottawa.

University of Toronto and at the University of Western Ontario, and the Department of Investigative Medicine at McGill University; these departments contain graduate students who work to higher degrees. With few exceptions, departments designed for undergraduate instruction are active in research; a majority provide graduate instruction as well, in which the students are maintained on research fellowships or grants.

Notable contributions to medical knowledge are made every year by Canadian scientists, but space permits the mention of only a few fields: studies on epilepsy at the Montreal Neurological Institute; functions and interrelations of areas in the brain and brain stem and studies in neurophysiology and neurochemistry at McGill University, the University of Ottawa and the University of Western Ontario; endocrine and metabolic studies at McGill University and the Universities of Montreal, Toronto, Western Ontario and Manitoba; anticoagulants at the University of Saskatchewan; atherosclerosis and hypertension at McGill and Queen's Universities and the Universities of Western Ontario and British Columbia; hypothermia at the University of Toronto; surgery of heart and blood-vessels at McGill University and the Universities of Toronto and Montreal, and the Montreal Institute of Cardiology; tuberculosis at Dalhousie University, the Institute of Microbiology, Montreal, and the Connaught Medical Research Laboratories, Toronto; mental health studies at the Department of Health, Nova Scotia, the Allan Memorial Institute at McGill University, the University of Toronto, Regina General Hospital and the University of British Columbia; virology, including poliomyelitis, at the Institute of Microbiology, Montreal, the Sick Children's Hospital, Toronto, and the Connaught Medical Research Laboratories; bacteriology, immunity and hypersensitivity at McGill University, the University of Montreal, Queen's University, the University of Western Ontario and the University of Toronto; cancer in all the medical schools.

Connaught Medical Research Laboratories.—The Connaught Medical Research Laboratories, University of Toronto, were established for the advancement of preventive medicine and public health through research and through the preparation of biological and other products essential in prevention or treatment of certain diseases. The Laboratories render a medical public service to all the provinces of Canada and, to an extent, to countries abroad. This service was initiated when the preparation of diphtheria antitoxin was undertaken in the Department of Hygiene at the University in an effort to reduce the toll of deaths from diphtheria in Canada. At the same time, the Department initiated investigations into this and other diseases. Since then, research activities have constantly expanded and today more than seventy studies are being conducted in the Laboratories.

The research program of the Laboratories concerns the broad field of preventive medicine. By including the study of certain animal diseases, particularly those which are transmissible to man, and through preparation of related products, the Laboratories are serving both the medical and veterinary professions.

The research projects are extensive and include studies of bacterial and virus diseases, investigations in immunology, epidemiology, physiology, biochemistry, and in other fields related to preventive medicine. These undertakings are maintained in part through the distribution of products, the furnishing of which constitutes an important public health service.

Important to the advancement of public health is the assistance rendered by the Laboratories in the postgraduate teaching of medical officers of health, nurses, dentists, veterinarians, and other professional personnel. From the inception of the Laboratories in 1914, members of the staff have been closely associated with postgraduate teaching in public health. In 1924, through the beneficence of the Rockefeller Foundation and with the co-operation of the Government of the Province of Ontario, the School of Hygiene was established. This provided greatly enlarged teaching facilities and also extended the participation of the Connaught Medical Research Laboratories in the work of training public health leaders.

On the University campus the College Division of the Connaught Medical Research Laboratories and the School of Hygiene share one building, permitting of joint use of research and laboratory facilities of the two institutions, and promoting a close

and mutually advantageous relationship. Here also the production of insulin and other glandular products is undertaken. On Spadina Crescent in Toronto, the Spadina Division of the Laboratories provides accommodation for much important work including the production of penicillin and research in the field of antibiotics. Additional facilities are provided near Toronto at the Dufferin Division and include a 145-acre farm property with modern laboratory buildings and quarters for animals.

Through the organization of the Western Division in the University of British Columbia, the Connaught Medical Research Laboratories have shared in the development of an important program of research in preventive medicine on the Pacific Coast.

Thus for over forty years the Connaught Medical Research Laboratories, with the co-operation of the medical profession and the official public health authorities, have contributed in steadily increasing measure to the advancement of research and public health in Canada.

The Banting Research Foundation.—The Banting Research Foundation supports the work of the Banting and Best Chair of Medical Research in the University of Toronto and aids medical research throughout Canada by making grants-in-aid to those who submit problems of sufficient medical interest to the Board of Trustees. The Board meets and makes grants usually three times a year, around June 1, Oct. 1 and Feb. 1. Five members of the Board of Trustees are appointed by the Board of Governors of the University of Toronto and the Alumni Association of the University of Toronto, and these five members appoint two other Trustees, then the seven members appoint an eighth Trustee.

Subsection 4.—University Research

Canadian universities and colleges would subscribe to three basically essential aims though with varying degrees of emphasis: (a) the diffusion of knowledge through sound teaching, extension and evening classes and written reports, (b) the conservation of knowledge and its reorganization and (c) the extension of the boundaries of knowledge through research. Most undergraduate courses attempt to provide a basic understanding in a number of subject fields with more extensive knowledge in one or more of these. The graduate courses provide a wider and deeper appreciation and understanding in a limited field through advanced courses, seminars and individual research. Practice in the research methods of the disciplines, using experiment, questionnaire, logic of the subject, or statistics is intended to prepare students capable of adding to present knowledge.

Research in the universities was first undertaken to obtain knowledge for its own sake, or pure research. It was soon recognized that this provided basic information on which applied science rests and it was followed through. More recently the universities, because of their unique position in having trained specialists and equipment, have undertaken emergency and other contractual research. The trend to pursue all three has been expanding rapidly and has created new problems as well as providing greater opportunities for undertaking sizable tasks which could not have been considered otherwise. Broadening of the field of research has indirectly been responsible for increasing the capacity of the universities to educate advanced students and has occasionally improved the quality of their education through providing large-scale equipment otherwise beyond the ability of the institution.

Research presently undertaken in the universities falls into three broad categories: projects undertaken by the student under the guidance of a professor or committee to meet requirements for an advanced degree; that undertaken by the professor, which may be of a more or less continuous nature; and larger research projects undertaken co-operatively on a faculty or interfaculty basis in the university laboratories or in such specialized institutions connected with the university as medical research laboratories, institutes of microbiology and hygiene, science service laboratories and agriculture colleges.

Some idea of the increase in research undertaken by Canadian universities is obtained from a comparison of the situation in 1919 (when two universities—Toronto and McGill—offered graduate courses beyond the master's degree and graduated 11 students) with the

situation in 1955. In 1955 Ontario had four, Quebec three and six other provinces each had one major university with graduate facilities and conferred 294 doctorates in course, distributed by fields as follows: biological sciences, including medical and agricultural sciences, 83; engineering and applied science, 6; humanities, 50; physical sciences, 115; social sciences, 38; and unclassified, 2. Subject matter covered in these and reports of other research conducted by university professors and reported in professional journals is encyclopaedic and reflects specialization and variety. Outstanding research in different fields has become associated with various universities, for example: nuclear research and geophysics in McGill, Queen's, McMaster and Saskatchewan; medical research in the Connaught Laboratories and in the Montreal Neurological Institute, to mention two; agricultural research in the western universities; and fisheries research in British Columbia.

Outside financial support for university research comes primarily from three sources: Departments of the Federal and Provincial Governments and including the National Research Council and Defence Research Board which provide grants for approved and contracted government sponsored research; industry which supports both basic and applied research; and private foundations which provide grants for approved research, sometimes in selected fields.

Expansion of facilities and the organization of personnel for research is not haphazard but the result of policy decisions. The present trend is towards the selection of department heads with consideration of expansion of research and the co-ordinating of research within broad fields.

Subsection 5.—Industrial Research

Industrial research in Canada is changing very rapidly. In the past, industry in general was largely unaware of the value of research to its own development and to that of the country, partly because many Canadian companies were subsidiaries of companies in the United Kingdom and the United States and partly because small companies found it impossible to finance their own research. The problem was accentuated by the vast size of the country, the absence of concentration of similar industries and the proximity to the relatively large research facilities of the United States.

However, the emergence of Canada as a highly industrialized society, its entrance into multitudinous fields of production, the rapid growth of many large nation-wide industries, the serving of a discriminating domestic market and the meeting of competition from abroad have had the effect of making Canadian manufacturing establishments research conscious and many of the larger ones now possess competent research organizations. The fields covered by some of these industries are outlined in the 1956 Year Book at pp. 386-389. The research work of the Canadian Pulp and Paper Association, an independent corporation combining efforts of government, university and industry in the expanding field of pulp and paper research, is described in the Forestry Chapter of this volume.

Industrial Research-Development Expenditures in Canada, 1955.—A survey was conducted in 1955 of some 2,500 of the larger industrial firms in an attempt to measure the extent of the research program being undertaken and to obtain an indication of its direction. From this survey information was secured on research costs incurred by Canadian companies—both direct expenditures, and cost of purchasing research-development results from affiliates or from other companies located in Canada and in foreign countries. Data were also secured on the principal fields in which the research was carried out and on the number of professionally trained research personnel employed. The magnitude of the research-development costs in 1955 and the increase planned for 1956 give an indication of the size of the program and the direction in which business is searching for new products, for new and more efficient processes and for improvements to existing products and techniques.

The research-development program was reported by industry as totalling almost \$66,000,000 in 1955 and was estimated at close to \$80,000,000 in 1956. By far the major part of the work in 1955 was conducted within the companies themselves and accounted for \$52,000,000. An additional \$12,000,000 was spent for research-development done outside Canada, the bulk of which was in the United States. The remaining \$2,000,000 was spent for research done by other companies in Canada.

1.—Research-Development Expenditures by Industry 1955 and 1956

| Industry | Research Expenditures 1955 | Estimated Research Expenditures 1956 | Increase or Decrease |
|--|----------------------------|--------------------------------------|----------------------|
| | \$ | \$ | p.c. |
| Mining, quarrying and oil wells..... | 3,045,624 | 3,619,300 | 18.84 |
| Manufacturing— | | | |
| Foods and beverages..... | 1,705,727 | 1,779,122 | 4.30 |
| Rubber products..... | 2,719,839 | 2,997,234 | 10.20 |
| Leather products..... | 156,900 | 169,500 | 8.03 |
| Textile products..... | 1,160,969 | 1,294,820 | 11.53 |
| Wood products..... | 94,815 | 87,500 | - 7.72 |
| Paper products..... | 4,049,008 | 4,595,425 | 13.50 |
| Iron and steel products..... | 3,088,257 | 3,297,120 | 6.76 |
| Transportation equipment..... | 16,553,409 | 22,771,645 | 37.56 |
| Non-ferrous metal products..... | 4,530,242 | 5,109,200 | 12.78 |
| Electrical apparatus and supplies..... | 10,780,204 | 11,896,124 | 10.35 |
| Non-metallic mineral products..... | 1,101,488 | 1,073,927 | - 2.50 |
| Products of petroleum and coal..... | 4,704,498 | 5,653,883 | 20.18 |
| Chemical products..... | 7,844,984 | 10,135,587 | 29.20 |
| Other manufacturing ¹ | 297,500 | 518,400 | 74.25 |
| Transportation, storage, communication and public utility operations.. | 3,350,609 | 3,371,900 | 0.64 |
| Other non-manufacturing ² | 701,542 | 934,060 | 33.14 |
| Totals..... | 65,885,615 | 79,304,747 | 20.37 |

¹ Includes tobacco and tobacco products and miscellaneous manufacturing services, engineering and scientific services and trade associations.

² Includes construction, health

The following estimates of research-development in the various fields of activity in 1955 show that mechanical engineering, chemistry, chemical engineering, electrical engineering and metallurgy together accounted for 86 p.c. of the total. Expenditures in the chemistry and the chemical engineering fields, which are closely related, accounted for almost one-third of the total. Every industry reported some activity in the chemical research field and in at least one phase of engineering research.

2.—Research-Development Expenditures by Field of Research 1955

| Field of Research | Amount | Field of Research | Amount |
|---------------------------|------------|-----------------------------|-------------------|
| | \$ | | \$ |
| Chemistry..... | 13,370,558 | Electrical engineering..... | 13,777,617 |
| Physics..... | 3,066,917 | Mechanical engineering..... | 16,136,820 |
| Geology..... | 733,969 | Other engineering..... | 1,309,189 |
| Medicine..... | 1,454,999 | Metallurgy..... | 5,611,277 |
| Agriculture..... | 517,165 | Other..... | 1,294,263 |
| Biology..... | 471,144 | | |
| Chemical engineering..... | 7,601,550 | | |
| Civil engineering..... | 540,147 | Total..... | 65,885,615 |

Arrangement of industrial-research expenditures by size group based on annual sales of research-active firms shows that the larger firms accounted for the major part of the expenditures—firms with annual sales in excess of \$50,000,000—although this size group included only 14 p.c. of the firms maintaining research establishments.

3.—Research-Development Expenditures by Size Group 1955

| Size Group ¹ | Firms | Research-Development Cost | Percentage of Total |
|-----------------------------------|------------|---------------------------|---------------------|
| | No. | \$ | |
| \$50,000,000 or over..... | 52 | 42,723,889 | 64.85 |
| \$10,000,000 to \$49,999,999..... | 92 | 13,773,730 | 20.91 |
| \$ 1,000,000 to \$ 9,999,999..... | 199 | 8,572,856 | 13.01 |
| Under \$1,000,000..... | 34 | 815,140 | 1.23 |
| Totals..... | 377 | 65,885,615 | 100.00 |

¹ Based on annual sales value in 1955.

During 1955 the equivalent of 2,914 professionally trained scientists were employed on research-development projects. The three top industrial groups, in terms of numbers of professionally trained employees, were electrical apparatus and supplies, transportation equipment and chemical products, which together accounted for 58 p.c. of the total professional employment in the research field.

Classification of the professional scientists by field of research and degree of training reveals that in all phases of engineering research there is a greater predominance of professional employees with bachelor degrees. On the other hand, chemists, physicists, geologists and other earth scientists and biological scientists, although predominantly trained to the bachelor level, have a greater percentage of professional employees with master or doctorate degrees than in the engineering field or in the over-all pattern.

4.—Professional Research-Development Scientists Employed, by Field and Level of Training 1955

| Field of Profession | Level of Training | | | Total |
|--|-------------------|------------|------------|--------------|
| | Bachelor | Master | Doctorate | |
| | No. | No. | No. | No. |
| Chemical engineer..... | 345 | 52 | 48 | 445 |
| Civil engineer..... | 27 | 5 | 1 | 33 |
| Electrical engineer..... | 416 | 57 | 9 | 482 |
| Mechanical engineer..... | 416 | 21 | 7 | 444 |
| Other engineer..... | 220 | 22 | 10 | 252 |
| Chemist..... | 392 | 120 | 203 | 715 |
| Physicist..... | 82 | 28 | 33 | 143 |
| Geologist, geophysicist and other earth scientist..... | 19 | 6 | 8 | 33 |
| Metallurgist..... | 129 | 16 | 18 | 163 |
| Mathematician..... | 20 | 3 | 2 | 25 |
| Medical scientist..... | 3 | 3 | 67 | 73 |
| Agricultural scientist..... | 15 | 4 | 3 | 22 |
| Biological scientist..... | 18 | 3 | 7 | 28 |
| Unclassified and other..... | 52 | 1 | 3 | 56 |
| Totals..... | 2,154 | 341 | 419 | 2,914 |

CHAPTER IX.—AGRICULTURE

CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

Agriculture is one of Canada's leading primary industries and is of particular importance to the economy of the country. Special articles that have appeared in previous Year Books dealing with the historical development of agriculture and with significant features of that progress are listed in Chapter XXIX under the heading "Special Material Published in Former Editions of the Year Book". The following article covers, briefly, trends in the postwar period.

POSTWAR AGRICULTURE*

The trends in postwar agriculture have been quite well marked. A larger over-all output of agricultural products has been accomplished with a reduced labour force. Canada's population has increased to more than 16,500,000, about 34 p.c. since 1946, and industry generally has been able to absorb quite readily the annual increment of new workers entering the labour force from natural increase in the adult population and from immigration. This buoyant activity, together with little unemployment, has resulted in steady and advancing incomes and therefore in active demand for almost all classes of commodities including foods. Thus the domestic market has utilized a much larger proportion of the increased output of agricultural products, bringing about a change in the prewar pattern of Canada's agricultural export trade.

Agricultural Production.—As already stated, the volume of agricultural production increased considerably over the postwar period. The index of physical volume, calculated on the basis of 1935-39 equalling 100, stood at 165.3 for 1956 as compared with 125.6 for 1946. Fluctuations registered in the interval were attributable in large measure to the size of the western grain crop. But even allowing for the years of bumper grain production, there was a consistent increase in the output of almost all agricultural products.

* Prepared under the direction of Dr. J. G. Taggart, C.B.E., Deputy Minister of Agriculture, Ottawa.

Hog slaughterings, which reached a peak during the period of the wartime bacon contracts with the United Kingdom, varied through the years since then, but remain at more than 1,000,000 above the 1935-39 average of 3,400,000. In three of the postwar years they exceeded that average by 2,000,000. Slaughterings of cattle and calves showed a similar upward trend, increasing almost consistently through the years and in 1956 exceeding the 1935-39 average of 1,500,000 by just over 1,000,000. Total milk production varied in the postwar years between 15,300,000,000 lb. and 17,600,000,000 lb. annually.

Since the end of the War the number of farm workers has declined by an average of 30,000 annually and it is estimated that only about 15 p.c. of the gainfully employed in Canada are now on farms. Ability to reach the high level of production with a much reduced labour force resulted largely from the great increase in mechanical farm operations. About \$2,000,000,000, or one-fifth of farm capital, is now invested in machinery and equipment. This includes one tractor for every 242 acres of improved farm land. Electricity is available on 75 p.c. of Canada's farms and provides power for many kinds of labour-saving devices. Some indication of the growth in mechanization is shown by figures secured from eight of the Department of Agriculture's Illustration Station Farms in southeastern Saskatchewan; in 1940, 17 p.c. of total farm capital in that area was in machinery and by 1956 the proportion was 41 p.c.

Also of great importance in the advance of agricultural output has been the constant introduction of improved methods of farming based on the work of agricultural scientists. Long-term research of the plant breeders, for instance, has produced disease-resistant and newer crop varieties which have increased production materially through higher yields. Today special varieties of almost all agricultural crops have been developed to give best results under the varying climatic and soil conditions existing throughout Canada. Chemical destruction of weeds, almost in its infancy during the War years, today is common practice and vast areas of crops are treated with a variety of chemical preparations that effectively destroy or control weeds. The development of new and better insecticides and fungicides has kept pace with the chemical treatment of weeds and with a corresponding effect. Irrigation and more efficient production and harvesting methods have also played a part.

At the same time, in considering crop yields, nature must not be overlooked. Canada has recently had a cycle of excellent growing years; should this be replaced by a less favourable growing cycle, yields might well decline and over-all crop production be reduced.

The livestock industry has also undergone considerable change. Plans for the eradication of tuberculosis and brucellosis among cattle have received greater impetus. Record of performance testing and artificial insemination of cattle is contributing to better strains of livestock and poultry. Dairy research is having its effect, and studies relating to poultry and of new methods of preparing and packaging poultry products for market have given this industry something of a new look.

In these and many other ways research is contributing toward the increase in production. Research work on test plots and in laboratories is being applied in the everyday operations of Canadian farms and agriculture is becoming more and more a scientific operation.

The Domestic Market.—Canadians spend about one-quarter of their income on food. At present they consume in one form or another about 99 p.c. of all milk produced in the country, exports of pork products have become quite small in relation to domestic consumption, and in 1955 and 1956 Canada became a net importer of beef and poultry. It therefore seems clear that, particularly since 1950, consumption of all these products has shown a considerably sharper rise than the increase in population. In other words there has been a 'real' increase in per capita consumption.

A striking feature of postwar food consumption has been the increased use of high protein foods such as meat, poultry and eggs, and of the protective foods such as milk and processed dairy products. There has also been greater consumption of fruits and

vegetables, both fresh and canned, but consumption of cereals and potatoes has declined. Thus Canadians appear to be enjoying a much better balanced diet and the Canadian housewife is spending more of her food budget on higher priced foods.

Increased per capita consumption of some products has also been accompanied by changes in consumer preference bringing adjustments in production, processing and marketing methods. In 1956, Canadians consumed 73.6 lb. of beef per capita which is approximately 29.5 lb. more than the amount consumed in 1952 and the highest consumption in 30 years. Also, beef consumed in recent years has been of higher quality. In 1938 the percentage of Red and Blue brand beef was about 21 p.c. of the total kill; in 1956 it was nearly 50 p.c. The increased demand has created a year-round market for these grades and this change in market requirements has resulted in a more efficient use of pasture because, with an assured outlet throughout the pasture season, there is not the necessity, as there was at one time, of trying to reach the early market before the seasonal break in prices.

In 1956 the per capita consumption of poultry was 31.6 lb., an increase of about 10 lb. since 1950. Until fairly recently, poultry production was something of a farm sideline but now it is rapidly becoming a highly specialized farm enterprise. Efficient laying flocks are replacing the old casual layer and the establishment of ultra-modern broiler plants is indicative of the transition in the production of poultry meat. Recent acceptance of turkeys as something more than a Thanksgiving and Christmas feast has been achieved by the introduction of small light-weight birds and by changes in merchandising and processing methods geared to accommodate large-scale production and distribution. Today the public is getting a higher quality product, packaged in more convenient and attractive form and available throughout the year.

Annual consumption of pork products has varied more than other meats during the postwar period. This is because, as farmers assess the potential market demand, they can cut-back or increase the supply of hogs much more rapidly than can be done with beef cattle. Today Canadians are eating about 58 lb. per capita annually compared with a prewar consumption of 39.8 lb. Few adjustments have been necessary to meet the demands of the domestic market. The Canadian hog industry was originally developed to meet the requirements of the United Kingdom market. Fortunately Canadian taste in bacon and hams is almost identical with that of the British consumer and so, as exports to the United Kingdom declined, the domestic market proved a suitable replacement. Recent consumer preference surveys indicate that the Canadian housewife is prepared to pay a premium for lean bacon.

Because of the number of products into which fluid milk can be processed and the speed with which a transition can be made from one to another, trends in the dairy industry are relatively flexible. For some years now the domestic market has been absorbing almost all the output of Canadian farms either as fluid milk and cream or as a processed product. Annual milk production has been around 17,300,000,000 lb. for the past three years. Per capita consumption of fluid milk and cream has been very stable for four years and that of creamery butter has shown little change in the same period. Consumption of cheddar cheese declined somewhat in 1956 but still remains about in line with recent years. Ice cream continues to be an important dairy product and the average consumption is about 16.5 pt. annually.

For a number of years domestic consumption of concentrated milks has been increasing. Dry skimmed milk has become popular in baby-feeding and for partially fat-free diets and consumption has almost doubled since 1945. If the recent trend in domestic sales and exports of evaporated milk is to be maintained the volume of production must be increased. But because fewer heifers are currently being kept for replacement of older cows in the herd, any increase in milk production in the immediate future will depend mainly on an increased production per cow.

The Export Market.—Naturally the expanding demand from the domestic market for Canada's farm production has had a marked effect on the pattern of export trade. In the years 1935-39 Canada exported on the average 33 p.c. of the total agricultural production. The proportion has fluctuated considerably since then, reaching 69 p.c. in 1945, the peak year of the wartime food production drive, and dropping to 24 p.c. in 1953. In 1955, the latest year for which figures are available, it was 28 p.c. Imports of directly competing agricultural products have not varied much from year to year. They averaged 5 p.c. of Canadian farm production for the years 1935-39 and were 4 p.c. in 1955.

There has been a considerable change since before the War in the dependence on the export market by individual commodities. Wheat exports have averaged about 60 p.c. of production but exports of some other grains have increased greatly in terms of production. For instance, barley exports in 1935-39 were 17 p.c. of production and for the 1955 crop they were 27 p.c. The change is even more striking for rye, being from 26 p.c. in 1935-39 to 88 p.c. in 1955, and for flaxseed from 3 p.c. to 59 p.c. Despite the great increase in production there has been a marked decline in the relative dependence on the export market for livestock. The percentages of cattle marketings exported, both live and as meat, were 14 p.c. in 1935-39, and 3 p.c. in 1955. Equivalent figures for hogs show a similar movement, from 24 p.c. prewar to 6 p.c. in 1955. Exports of cheese and apples have also declined relative to production. Cheddar cheese exports were 65 p.c. of production in 1935-39 and 17 p.c. in 1955 and apple exports 52 p.c. in 1935-39 and 15 p.c. in 1955.

Canada's agricultural exports have also shown a decided change in direction during recent years. In the immediate prewar years, 62 p.c. of such exports, other than wheat, found a market in the United Kingdom and 27 p.c. in the United States. During the War, the United Kingdom took all available supplies of many agricultural products. After the War, balance of payments difficulties led to the curtailment of imports of many agricultural products from dollar countries, but the United States showed an ability to absorb greater quantities of Canadian farm products. In the three years 1953 to 1955, 21 p.c. of farm exports, other than wheat, went to the United Kingdom and 53 p.c. to the United States.

The position with respect to imports in the United Kingdom is that under a program of government assistance to agriculture through guaranteed prices and subsidies, domestic production has been stimulated and the dependence on imports reduced. In 1955 the United Kingdom produced 46 p.c. of its requirements of bacon and ham compared with 36 p.c. in 1938. The change in some other commodities was even more marked. Pork advanced from 74 p.c. in 1938 to 91 p.c. in 1955; eggs from 66 p.c. to 91 p.c.; beef from 47 p.c. to 63 p.c. and apples from 23 p.c. to 73 p.c.

The Future Domestic Market.—Whether the active trend of the past decade toward increased domestic consumption of agricultural products will continue appears to be tied in closely with the industrial economy of the country as a whole. With vast new resources being developed, and others still untapped, there seems every reason to conclude that population will increase even faster than in the past, that the domestic market will remain buoyant, and that new industrial areas will be established.

Thus Canadian agriculture faces the problem of meeting the needs of a much expanded domestic market. Canada has many thousands of acres of land in settled areas capable of much more intensive cultivation than at present. These areas are already supplied with electricity and transportation facilities and are within reach of schools, churches and other amenities of life. Scientific agriculture will continue to assist in increasing the potential output of Canadian farms. As already mentioned, hardier and higher-yielding varieties of almost all crops are constantly being developed; crop losses by insects, weeds and disease are being reduced; soil chemistry is making and keeping soils more fertile; irrigation and reclamation of suitable lands is progressing; improvement of livestock is under continual study as is processing, transportation and marketing of the finished product.

Because of Canada's rapid economic growth there has been some encroachment on farm land by industry. Naturally this is most pronounced in areas geographically suited for industrial development, and in such areas some fertile land has been lost to agriculture. However, it seems probable that for some years to come, more intensive cultivation of the present farming areas will compensate for loss of any agricultural land to industry. A possible exception may be in certain areas of southern Ontario where highly specialized crops are now grown and where climatic conditions are the essential factor in their production.

The dearth of farm labour may be a limiting factor to production in those branches of the industry, such as dairying, which cannot obtain much advantage from mechanization. However, during the latter part of 1956 and early 1957 there were indications that the shift of workers from farm to town had slowed down, apparently as the result of a more adequate supply of labour in competing industries, particularly forestry and construction. If the total available labour force tends to level out more evenly among all industries in the years ahead, farmers will find hired help less difficult to obtain.

Section 1.—Federal Government in Relation to Agriculture*

The British North America Act (1867) states in part that "in each province, the legislature may make laws in relation to agriculture in the province" and that "the Parliament of Canada may from time to time make laws in relation to agriculture in all or any of the provinces; and any law of the legislature of a province relative to agriculture, shall have effect in and for the province as long and as far as it is not repugnant to any Act of the Parliament of Canada". As a result of this provision there now exists a Department of Agriculture, with a Minister of Agriculture at its head, in the Federal Government and in each of the provinces except Newfoundland where agricultural affairs are dealt with by the Agricultural Division of the Department of Mines and Resources.

Subsection 1.—General Policy, Price Stability and Farm Credit

The activities of the Department of Agriculture are directed toward the production of marketable farm products. Apart from the initial research and experimentation in connection with operations on the farm itself it is essential that processing, grading and inspection of farm products should be of a high standard if markets both at home and abroad are to be retained and new ones developed. For that reason the inspection and grading activities of the Department have become of increasing importance. By inspection and grading the buyer is able to obtain a product suited to his requirements; the producer is compensated according to the grade of his product and is thus encouraged to produce a high quality commodity.

The results of experimental and research work and the policies of the Department in general are made available to farmers and to the public through bulletins, the press, radio, television and the screen. Regular releases on market conditions and prices are a feature of this publicity.

Price Stability.—The Federal Government has passed a number of Acts designed to give price stability in marketing agricultural products. The most important of these is the Agricultural Prices Support Act, 1944, which permits the Federal Government to stabilize the price of any agricultural product except wheat and coarse grains (which are marketed under other legislation) by outright purchase or by underwriting the market through guarantees or deficiency payments. The following products have been supported under the Act when occasion arose: potatoes, apples, dried white beans, extracted honey, dry skimmed milk, creamery butter, shell eggs, cheese, hogs and cattle.

* Except as otherwise indicated this material was prepared under the direction of Dr. J. G. Taggart, C.B.E., Deputy Minister of Agriculture, Ottawa.

Under the Agricultural Products Co-operative Marketing Act, 1939, price support may be extended by the Government to assist in financing initial payments made by co-operatives to primary producers on delivery of the products for sale. Initial payments are subject to negotiation between co-operative and government but may not exceed 80 p.c. of the average returns for like grades and qualities during the previous three years and the Government guarantees banks against loss in advancing funds to co-operative organizations with whom agreements have been signed. The legislation has been used extensively by co-operatives, and agreements through the years have covered onions, potatoes, corn, many seed crops and ranch bred fox and mink pelts.

A number of provincial governments have legislation providing for the establishment of a Board to regulate or control the marketing of agricultural products sold within the province concerned. Under the British North America Act a provincial government cannot legislate with regard to products marketed outside the province or in export trade, but under the Agricultural Products Marketing Act, 1949, the Federal Government may at discretion permit provincial marketing legislation to be applied in whole or in part to the marketing of agricultural products outside the province concerned and in export trade.

The Agricultural Products Board Act, 1951, states that the Board may buy, sell, export and import agricultural products when directed by the Governor in Council.

Farm Credit and Assistance.—The Federal Government has made provision for the extension of credit to farmers under the Canadian Farm Loan Act and under the Farm Improvement Loans Act. In addition to these two Acts, dealt with in detail below, The Prairie Grain Producers Interim Financing Act, 1956, provides short-term financing necessary by reason of difficulty in the prompt marketing of threshed grain. Certain financial assistance in event of crop failure is provided by the Prairie Farm Assistance Act.

The Canadian Farm Loan Act.—Under this Act, long-term farm mortgage credit is available to Canadian farmers through the agency of the Canadian Farm Loan Board established in 1929. Loans are made to buy farm land, livestock and farm equipment, to make farm improvements and to pay debts and operating expenses.

Prior to June 26, 1956, the Board supplied intermediate-term second mortgage credit to its first mortgage borrowers but on that date the Act was amended and this type of credit was discontinued and the Board's first mortgage lending powers were broadened. First mortgage loans repayable on an amortization plan with equal annual payments are now made for periods not exceeding 30 years and in amounts up to \$15,000 and up to 65 p.c. of the appraised value of the farm offered as security. Funds for lending are borrowed by the Board from the Minister of Finance at current interest rates and are re-lent to farmers at a slightly higher interest rate sufficient to pay the cost of funds and administration expenses. The Board's authorized capital, fixed at \$3,000,000 by the amendment of June 26, 1956, was increased to \$4,000,000 by a further amendment passed on Mar. 28, 1957. The Board's borrowing power is limited to twenty times the amount of its outstanding capital subscribed by the Government of Canada.

In the year ended Mar. 31, 1957, loans were approved for a total of \$13,978,700, an increase of 68 p.c. over the previous year and the largest amount approved in any year since the Board's establishment. Of this total 58.5 p.c. was approved to buy land and pay land-secured debt, 21.6 p.c. to pay debts, 14.3 p.c. to buy livestock and farm machinery and to make improvements and 5.6 p.c. for sundry purposes. At Mar. 31, 1957, 20,372 first mortgage loans and 1,841 second mortgage loans were outstanding for a total of \$53,748,364.

The Farm Improvement Loans Act.—The Farm Improvement Loans Act, administered by the Department of Finance, is designed to provide intermediate-term credit and a type of short-term credit to enable farmers to equip, improve and develop their farms. There is scarcely anything a farmer needs in the way of mechanical aids for his farm operation or his home for which a loan may not be made. Assistance may also be obtained

for the purchase of livestock, principally foundation or breeding stock; for installation or repair of farm electrical systems; for repair, alteration or construction of farm buildings, including the home; and for fencing, drainage and other development projects. Credit is provided on security and terms suited to the individual borrower.

The chartered banks are the lending agency under the Act. The legislation, originally operative for three years 1945-47, has been extended from time to time for three-year periods. The Federal Government guarantees each bank against loss up to 10 p.c. of the total loans made by it during the period. This guarantee does not apply to any loan made after the aggregate of all loans made by all banks in a given period reaches an amount fixed by statute. In 1956 the Act was extended for a further three-year period commencing Apr. 1, 1956, and ending on Mar. 31, 1959. The aggregate of loans for this period, affected by the guarantee, is set at \$300,000,000. By Dec. 31, 1956, only 727 claims amounting to \$425,402 had been paid under the guarantee since inception of the Act.

Loans may be obtained for terms up to ten years with interest not to exceed 5 p.c. The maximum amount to be advanced to a borrower at any one time was increased to \$5,000 by the legislation of 1956. The borrower must provide from 10 p.c. to 40 p.c. of the cost of his project or purchase, depending on the loan category to which it belongs.

By Dec. 31, 1956, \$523,852,496 or 80.2 p.c. had been repaid of the total loans made. The position as of Dec. 31, 1956, was as follows:—

| <i>Period</i> | <i>Loans Outstanding</i> | <i>P.C. of Total Loans Outstanding</i> |
|---------------|------------------------------|--|
| | \$ | |
| 1945-48..... | 13,979 | 0.01 |
| 1948-51..... | 790,455 | 0.6 |
| 1951-53..... | 5,986,856 | 4.6 |
| 1953-56..... | 65,404,326 | 50.4 |
| 1956-59..... | 57,483,367 | 44.4 |
| TOTALS..... | 129,678,983 | 100.0 |

1.—Loans Approved and Disbursed under the Canadian Farm Loan Act, Years Ended Mar. 31, 1948-57

NOTE.—Figures for previous years are given in the corresponding table of former Year Books beginning with the 1940 edition.

| Year Ended Mar. 31— | Loans Approved | | | | | Loans Paid Out | | |
|------------------------|-------------------|------------|--------------------|---------|-----------------|-------------------|--------------------|-----------------|
| | First Mortgage | | Second Mortgage | | Total Amount | First Mortgage | Second Mortgage | Total Amount |
| | No. | Amount | No. | Amount | | | | |
| | | \$ | | \$ | \$ | \$ | \$ | \$ |
| 1948..... | 1,301 | 3,145,150 | 517 | 315,400 | 3,460,550 | 2,911,167 | 274,073 | 3,185,240 |
| 1949..... | 1,821 | 4,450,100 | 756 | 469,200 | 4,919,300 | 4,169,070 | 425,966 | 4,595,036 |
| 1950..... | 1,949 | 4,715,500 | 801 | 473,900 | 5,189,400 | 4,480,779 | 462,150 | 4,942,929 |
| 1951..... | 1,796 | 4,312,450 | 680 | 409,550 | 4,722,000 | 4,288,866 | 404,213 | 4,693,079 |
| 1952..... | 1,437 | 3,929,500 | 494 | 308,900 | 4,238,400 | 4,131,141 | 337,951 | 4,469,092 |
| 1953..... | 1,685 | 5,458,750 | 559 | 393,550 | 5,852,300 | 4,766,149 | 342,410 | 5,108,559 |
| 1954..... | 2,091 | 7,366,800 | 591 | 449,950 | 7,816,750 | 6,606,323 | 394,216 | 7,000,539 |
| 1955..... | 2,145 | 7,902,100 | 395 | 323,400 | 8,225,500 | 7,849,663 | 357,339 | 8,207,002 |
| 1956..... | 2,057 | 8,126,900 | 204 | 182,750 | 8,309,650 | 8,038,877 | 215,445 | 8,254,322 |
| 1957..... | 2,921 | 13,978,700 | — | — | 13,978,700 | 13,154,066 | 29,926 | 13,183,992 |

2.—First Mortgage Loans Approved under the Canadian Farm Loan Act, by Province, Years Ended Mar. 31, 1955-57

NOTE.—Figures for previous years are given in the corresponding table of former Year Books beginning with the 1940 edition.

| Province | 1955 | | 1956 | | 1957 | |
|---------------------------|--------------|------------------|--------------|------------------|--------------|-------------------|
| | No. | \$ | No. | \$ | No. | \$ |
| Prince Edward Island..... | 116 | 331,350 | 104 | 332,350 | 136 | 445,800 |
| Nova Scotia..... | 29 | 88,050 | 36 | 123,700 | 47 | 221,350 |
| New Brunswick..... | 62 | 184,250 | 39 | 106,500 | 60 | 234,050 |
| Quebec..... | 177 | 597,400 | 127 | 506,600 | 139 | 707,350 |
| Ontario..... | 428 | 1,821,250 | 443 | 2,058,850 | 672 | 3,916,100 |
| Manitoba..... | 200 | 759,700 | 229 | 918,950 | 284 | 1,346,200 |
| Saskatchewan..... | 726 | 2,706,750 | 671 | 2,610,200 | 897 | 4,212,600 |
| Alberta..... | 307 | 974,600 | 314 | 1,049,600 | 591 | 2,381,700 |
| British Columbia..... | 100 | 438,750 | 94 | 420,150 | 95 | 513,550 |
| Totals..... | 2,145 | 7,902,100 | 2,057 | 8,126,900 | 2,921 | 13,978,700 |

3.—Loans Made under the Farm Improvement Loans Act, by Purpose, 1955 and 1956, with Cumulative Totals since 1945

| Purpose | 1955 | | 1956 | | Total Loans 1945-56 | |
|--|---------------|-------------------|---------------|-------------------|---------------------|--------------------|
| | Loans | Amount | Loans | Amount | Loans | Amount |
| | No. | \$ | No. | \$ | No. | \$ |
| Purchase of agricultural implements..... | 50,857 | 58,371,706 | 51,073 | 60,808,133 | 516,484 | 580,279,941 |
| Construction, repair or alterations of, or making additions to any buildings or structure on a farm..... | 3,578 | 4,886,207 | 3,835 | 5,374,605 | 30,989 | 37,882,721 |
| Purchase of livestock..... | 4,443 | 3,575,023 | 4,071 | 3,520,537 | 27,364 | 22,482,013 |
| Works for the improvement or development of a farm designated in the Regulations..... | 1,329 | 1,722,794 | 812 | 855,238 | 16,104 | 10,058,259 |
| Purchase or installation of agricultural equipment or a farm electrical system and the alteration and improvement of a farm electrical system..... | 433 | 460,184 | 301 | 193,631 | 3,663 | 2,259,396 |
| Erection or construction of fencing or works for drainage on a farm..... | 115 | 89,607 | 98 | 67,169 | 805 | 569,149 |
| Totals..... | 60,755 | 69,105,521 | 60,180 | 70,819,312 | 595,409 | 653,531,479 |

4.—Loans Made under the Farm Improvement Loans Act, by Province, 1955 and 1956, with Cumulative Totals since 1945

| Province | 1955 | | 1956 | | Total Loans 1945-56 | |
|---------------------------|---------------|-------------------|---------------|-------------------|---------------------|--------------------|
| | Loans | Amount | Loans | Amount | Loans | Amount |
| | No. | \$ | No. | \$ | No. | \$ |
| Newfoundland..... | 35 | 45,790 | 57 | 72,276 | 255 | 312,642 |
| Prince Edward Island..... | 1,225 | 1,106,055 | 1,027 | 990,245 | 9,096 | 8,295,816 |
| Nova Scotia..... | 1,089 | 998,938 | 931 | 893,272 | 6,476 | 5,781,321 |
| New Brunswick..... | 838 | 922,949 | 744 | 815,250 | 5,421 | 5,741,451 |
| Quebec..... | 8,559 | 9,812,151 | 9,046 | 10,960,977 | 49,915 | 56,575,800 |
| Ontario..... | 11,260 | 12,647,571 | 10,305 | 12,631,582 | 85,565 | 94,358,506 |
| Manitoba..... | 6,481 | 6,875,123 | 6,702 | 7,732,778 | 74,755 | 78,710,680 |
| Saskatchewan..... | 14,223 | 16,585,557 | 15,468 | 18,484,970 | 180,933 | 206,581,969 |
| Alberta..... | 14,896 | 16,629,025 | 14,195 | 16,109,125 | 165,594 | 178,715,919 |
| British Columbia..... | 2,149 | 2,482,362 | 1,705 | 2,128,837 | 17,399 | 18,457,375 |
| Totals..... | 60,755 | 69,105,521 | 60,180 | 70,819,312 | 595,409 | 653,531,479 |

Prairie Farm Assistance Act.—The Prairie Farm Assistance Act, passed in 1939 and administered by the Federal Department of Agriculture, provides for direct money payments by the Federal Government, on an acreage basis, to farmers in areas of low crop yields in the Prairie Provinces and the Peace River District of British Columbia. The Act was designed to assist the municipalities and provinces in years of crop failure to meet relief expenditures which would normally be too great to be assumed by them. The Act provides that payments be made to farmers under certain conditions and terms and, in order that Federal Government costs may be defrayed to some extent, it is required that 1 p.c. of the purchase price of all grains (wheat, oats, barley and rye) marketed in the Prairie Provinces be paid to the Federal Government and set aside in a special fund for the purposes of the Act.

If the farmer, who may be an owner, a tenant, or a member of a co-operative farm association engaged in farming, is located in a crop failure area, he may be awarded assistance on not more than one-half of the cultivated land or a maximum of 200 acres. The rates of payment range up to \$4 per acre.

From the inception of the scheme to Mar. 31, 1957, the total amount paid out under the Act was \$186,286,055. The amount collected under the 1-p.c. levy to Feb. 28, 1957, was \$97,740,303.

Subsection 2.—Agricultural Research and Experimentation

The Department of Agriculture conducts on a broad scale scientific research and experimentation on the control of pests and diseases, the nutritional requirements of plants and animals, the breeding and testing of new species and varieties, the microbiology of soils and foods, investigations of crop production and cultural methods, and many other matters. This work is carried on mainly by the Science Service and the Experimental Farms Service and, in addition to providing information on current production problems, is of paramount importance to the long-time well-being of agriculture.

Conservation of the soil is of basic importance to agriculture and research in the form of soil surveys and study of methods for the protection and conservation of soil resources is carried on by the Department in collaboration with the provincial governments. Studies include the chemistry of the soil, cover crops, value of manure and fertilizers, cultural methods, use of tillage machinery and development of large land reclamation projects.

For many years the Department has conducted investigations into the control of insects and diseases of forest trees. The limited silvicultural work carried on has aimed at maintaining a supply of trees suitable for planting on the prairies as shelter belts and to prevent soil and snow drifting. Basically this is also a soil conservation measure.

Much of the research and experimental work is concerned with crop plants, for after the soil itself, these are of chief importance. This work includes the breeding and testing of suitable varieties of crops to be grown under the varying climatic conditions throughout Canada. The culture and the nutritional value of crop plants and the suitability of food crops for human consumption—even their appeal or lack of appeal to a housewife—are continuously under study.

Livestock research includes mainly the feeding, care and handling of stock, its protection from insects and diseases and the production of suitable market and breeding types. A limited amount of work has also been done on the production of new strains of animals. Research and study of processed products such as milk, butter, cheese and meat and of fruits and vegetables is a most active item in the scientific work of the Department. Storage of agricultural products creates many problems that call for constant study.

Chemical and biological research and experimentation is chiefly of an applied nature. The Department does not specialize in so-called fundamental research involving the discovery of basic scientific phenomena and laws but concentrates on the adoption of known processes and the application of such processes to specific aims. Some discoveries bordering on fundamental research however are occasionally made, and extension of research is also made to some degree into the basic field where certain information is lacking in applied science.

Agricultural research, particularly in plant science, must be decentralized to a great extent as most problems must be studied where they occur. Apart from the value to farmers of having a local source of information the experimental farms and science laboratories are widely distributed because the work can be done in no other way. In addition to the headquarters of the Experimental Farms Service at Ottawa work is carried on at 32 branch experimental farms, 20 substations and two forest nursery stations. Experimental work of local application is done at 233 illustration stations. The work of the Science Service, centralized at Ottawa, is augmented by that of about 100 laboratories located throughout the country.

In the field of economic research, studies in farm management, land utilization, marketing and farm family living are undertaken in all parts of the country. The scope of the scientific and experimental work of the Department is revealed when it is realized that there is no plant or animal in Canada that is not susceptible to damage caused by bacteria, fungi, viruses, insects or parasites.

Subsection 3.—Protection and Grading

Unlike manufactured articles, even close scrutiny of most agricultural products is of little help in determining their purity as food, or their value to the farmer for further production. Products used as food must be pure and healthful and must satisfy standards of quality established for them. If agriculture is to be conducted on a sound basis, the supplies farmers buy—seeds, feeds, fertilizers and pesticides—also must carry a guarantee that they will be as represented. Much of the research and experimental work would be of no avail if legislation were not provided to ensure satisfactory end-products. In addition, Canada's livestock, crops and trees must be protected from diseases of foreign or domestic origin.

These protective and grading services are a most important part of the work of two sections of the Department of Agriculture: the Production Service and the Marketing Service. Generally the protective features and the grading to standards or approval of analyses of farm supplies come under the Production Service. The grading of most food products is the responsibility of the Marketing Service. Legislative authority to impose protective and grading services is derived from about 20 Acts or their accompanying Regulations.

Health of Animals.—The protection of the health of Canada's livestock is a most important service. To guard against the introduction of contagious diseases from foreign lands stringent regulations are enforced by the Health of Animals Division covering the importation of livestock, livestock products and even packing material and litter. Provision is also made for the control or eradication of animal diseases developing within Canada. The Division is responsible for the inspection of animals slaughtered for food and post-mortem examination is made of all carcasses in the course of slaughter and dressing before the meat is approved for human consumption. Sanitary conditions in packing plants and slaughter houses come under review and all canned meats must meet high standards of processing to qualify as food. The Division operates animal pathology laboratories which carry out routine laboratory examinations and conduct research investigations in animal disease problems.

Protection of Supplies.—The Plant Products Division, in co-operation with the provinces and other agencies, is concerned primarily with the administration of Acts respecting feeding stuffs, fertilizers, pesticides, hay and straw, fibre flax and binder twine, and the production of seed. The inspection services of the Division have three main functions: (1) to enforce the Acts that regulate the sale of the agricultural supplies; (2) to provide as required such services as seed crop inspection and the sealing of seed produced from inspected and other approved crops; (3) to co-operate with provincial governments and other agencies in promoting and improving supplies of seeds, feeds, fertilizers and pesticides.

Visual inspection is of little value for most of these products and laboratory testing is necessary; the laboratory services of the Division maintain branch offices across Canada. Testing seeds is a complex matter, for they must be tested for germination, variety, purity and freedom from weeds and other kinds of seeds before they are graded. All feeding stuffs, fertilizers and pesticides are subject to registration and this is refused if the use of products would be dangerous, if the ingredients or analyses are unsatisfactory or if the claims made regarding their value are incorrect or misleading.

Plant Protection.—The Division of Plant Protection functions with regard to plants and plant products much as the Health of Animals Division does with animals, and it administers the Destructive Insect and Pest Act. Imported nursery stock and plant material are all subject to inspection as protection against the introduction of insects and diseases. Extensive inspection is maintained within Canada to identify, localize and exterminate dangerous enemies of crops and trees. Provision is also made for the inspection of potato crops to be used for seed for domestic and export markets, and for the issuance of health certificates required for a wide range of plant products.

Standards and Inspection.—The Department has been steadily establishing and improving standards of quality for agricultural products for over fifty years. This work originated in an effort to improve the quality of export commodities and has gradually been extended to include many products that move in interprovincial trade. Most provinces have adopted these standards for enforcement on products marketed within their boundaries.

Grade standards are established and enforced for dairy products, meats, wool, eggs, poultry, fresh and processed fruits and vegetables, honey and maple products. These grades are widely recognized outside Canada and many Canadian foods and agricultural products command premium prices because of the strict quality standards maintained.

Dairy Products.—Producers, processors and consumers all derive benefits from grading and inspection services of the Dairy Products Division. Authority to carry out such services is contained in the Canada Dairy Products Act which establishes national standards for dairy products and regulates interprovincial and international trade. Grade names and standards are prescribed for cheddar cheese, creamery butter and dry skimmed milk and each of these products must be graded before entering into interprovincial or international trade. Dairy products for which grade names are not established, such as ice cream, evaporated milk and process cheese, are required to meet prescribed standards for composition, packing and marking before being exported from Canada, imported into Canada or moved from one province to another. Authority to carry on the grading and inspection of dairy products made and sold within the province of origin is derived from legislation passed by the province concerned.

Meats and Wool.—In addition to veterinary inspection of carcasses for wholesomeness, inspection and grading of meats for quality is of importance. All hogs slaughtered at inspected and approved plants are rail graded, that is, the farmer is paid on the dressed weight and quality of the carcass. All beef carcasses in inspected plants are graded and the better grades are marked with the national brands according to prescribed standards. Lamb and veal carcasses are graded on an optional basis. Wool is inspected and graded in registered wool warehouses.

Eggs and Poultry.—There are 1,243 registered egg grading stations for the grading and packing of eggs; and 43 registered egg breaking stations for the processing, grading and packing of frozen egg products. Registered poultry processing and eviscerating stations for the processing, eviscerating, grading and packing of poultry total 381. Because of a rapidly increasing demand for eviscerated poultry the quantity processed in registered processing and eviscerating plants has increased—from approximately 4,000,000 lb. in 1950 to 134,789,695 lb. in 1956.

Inspection of eggs, poultry and frozen egg products is compulsory on all sizable quantities intended for export, and also for interprovincial poultry shipments of 10,000 lb. or over. These products are also checked periodically for grade when offered for wholesale and retail sale. The sale of eggs by grade at retail is compulsory throughout Canada and the sale of poultry by grade at retail is compulsory in many of the larger consuming centres.

Fresh Fruits and Vegetables.—Grades are established for all principal fruits and vegetables produced in Canada. Practically all products for which grades are established must be inspected and certified if for shipment out of Canada. In addition, inspection and certification is compulsory on specified products if produced in certain provinces and shipped to another province. To provide this service, mostly seasonal in nature, a staff of inspectors is maintained throughout the foremost producing areas across Canada. In the larger distributing centres an inspection staff is maintained to administer grading, packaging and marking regulations at the wholesale and retail level, to collect and compile market statistics and to provide on request a commercial inspection service covering the quality or condition of produce received by the wholesaler. The shippers, brokers, commission houses and wholesalers dealing in fruits and vegetables in interprovincial, export or import trade must be licensed and are subject to established regulations.

Processed Fruits and Vegetables.—When special regulations covering canned fruits and vegetables were established under the Meat and Canned Foods Act in 1907, Canada became the first country to have any such legislation. Regulations under the Meat and Canned Foods Act now establish grades for practically all canned, frozen or dehydrated fruits and vegetables as well as for jams. Sanitary regulations are also established and are enforced by a staff of inspectors who provide an inspection service covering interprovincial, export or import movement of processed fruits and vegetables. This movement constitutes about 98 p.c. of the entire industry in Canada, the sales value of which amounted to approximately \$234,000,000 in 1955 as compared with \$20,000,000 in 1919. Although no grades are established in the regulations, the processing and packing of such products as pickles, olives, vegetable soups, etc., is also supervised and controlled. About 520 processing plants of one kind or another operate under a Certificate of Registration issued by the Department of Agriculture.

Honey.—Regulations are established for the classifying, grading and marking of all honey moving in interprovincial or export trade. Inspection is compulsory for honey being shipped out of Canada and administrative inspections for class and grade are made at the wholesale and retail levels on the domestic market. Interprovincial and export shippers and packers of pasteurized honey must be registered with the Department of Agriculture.

Maple Products.—Regulations are established for the prohibition of adulteration of maple products, for inspection and analysis, for proper identification of maple products and of 'colourable imitations' and for the licensing of manufacturers or packers and of all sugar bush operators operating in the interprovincial or export market. To enforce the regulations periodic inspection is made of the manufacturing plants, markets, stores and restaurants.

Subsection 4.—Canada's Relationship with FAO

According to the constitution of the Food and Agricultural Organization, the nations joining the Organization agree to promote the common welfare and contribute toward an expanding world economy by furthering separate and collective action for the purposes of raising levels of nutrition and standards of living of the people under their respective jurisdictions, securing improvements in the efficiency of the production and distribution of all food and agricultural products, and bettering the conditions of rural populations.

The FAO at its founding conference at Quebec City in 1945 started with 34 members; in 1957 there were 74 members. As new nations are born they may join the FAO. For example, Tunisia was admitted at the 1955 Conference and Morocco and Sudan joined at a special session of the 1956 Conference. The first Director-General of the FAO was Lord John Boyd Orr of the United Kingdom and the fourth and present incumbent is B. R. Sen of India who was elected in 1956.

The budget voted in 1945 for the first nine months of the new Organization's working year was \$2,000,000 and the 1957 budget was \$6,800,000. In addition to the latter amount, technical assistance funds (ETAP) totalled approximately \$9,144,000. Currently the staff of the Organization numbers about 1,600 persons, 600 of whom are working in over 40 country missions mostly as technicians.

FAO activities cover a wide field including agriculture, fisheries, forestry, nutrition, home economics, agricultural statistics, marketing and economics. A number of regional bodies have been created to facilitate work in special fields. About 85 p.c. of FAO activities represent direct assistance to individual governments, the remainder being composed of regional projects and services. The FAO arranges specialized training abroad for professional, technical and administrative officials from under-developed countries, and assists governments to organize in-service training institutes within their own countries. Since 1951, FAO has trained over 1,000 Fellows abroad and another 3,000 professional workers in regional and national training centres.

Commodity Review.—Progress in production of food and agriculture has been made since World War II, although it may not have been as great as desired nor equal among all countries. Production during 1956 rose sharply in North America and Oceania, the regions already most troubled by surpluses, but otherwise, apart from a substantial gain in the Far East, production showed little change and in some cases declined.

The disposal of agricultural surpluses remains one of the most pressing commodity problems facing the FAO and the scale of special disposal programs has been stepped up. The agency within the FAO directly responsible for a review of the commodity situation is the Committee on Commodity Problems (CCP) which carries out FAO responsibilities of analysis and interpretation of the international commodity situation and advises on suitable action when appropriate.

Over the past two years the Committee has more intensively applied the policy of setting up commodity study groups such as those on wheat and other grains, cocoa, coffee, dairy products, coconut, olive oil, and hard fibres. The CCP also convened an expert working group on agricultural support measures. Canada has been represented on the working parties dealing with grains, dairy products and price supports, and has been following closely the developments in the other commodity working groups.

In addition, the Consultative Sub-Committee on Surplus Disposal, located at Washington, U.S.A., is holding a watching brief in connection with programs having to do with the disposal internationally of surplus agricultural commodities. The Sub-Committee provides a forum for discussing complaints and problems. Principles governing the disposal of surpluses are: to increase consumption rather than to restrict supplies; to dispose of excess stocks in an orderly manner so as to avoid any undue pressure resulting in sharp falls of prices on world markets, particularly when prices of agricultural products are generally low; where surpluses are disposed of under special terms, to undertake that such arrangements be made without harmful interference with normal patterns of production and international trade.

Another consultative sub-committee deals with the economic aspects of rice, paying particular attention to trade matters and to any special difficulties which exist or are likely to arise in the international trade in rice.

The CCP and its Washington Sub-Committee have had under consideration such matters as the establishment of national food reserves and the use of surpluses for economic development. Progress has been slow but a number of nations did get together and

devise a plan of utilizing surplus dried milk. A scheme is under development in Calcutta, India, with the financial backing of several countries. Canada has indicated its willingness to participate in this scheme and has also agreed to take part in the survey of dairy needs in the city of Karachi.

Canada and the FAO.—Canada is one of the founding members of the FAO and is a member of the Council, the Committee on Commodity Problems and the Consultative Sub-Committee on Surplus Disposal. Canada has also participated in a number of working parties sponsored by FAO dealing with a variety of problems and is represented on the Co-ordinating Committee.

More than 50 Canadians have been on technical assignments since 1951. For some of these experts there were repeat assignments. Others have been invited to participate on panels of experts dealing with nutrition, plant protection, forestry and fisheries. A number of Canadians are on the staff at Headquarters.

Canada's financial contributions are at present the fifth largest, representing 4.6 p.c. of the present FAO budget; the first four in order of size of contributions are the United States, the United Kingdom, France and West Germany. Canada's financial contribution to FAO Headquarters' budget since the beginning has ranged from \$190,000 to \$338,000 annually. In addition, Canada contributes to FAO's technical assistance work through its annual payment to the UN Technical Assistance Fund. In 1957 this contribution totalled \$1,800,000.

Section 2.—Provincial Governments in Relation to Agriculture*

Subsection 1.—Agricultural Services

Newfoundland.—Government agricultural services in Newfoundland are operated by the Agricultural Division of the Department of Mines and Resources. The Division is in charge of a Director who is assisted by a staff of 21 officers. For purposes of administration, the Province is divided into nine districts. A fieldman with permanent headquarters is located in each district except Labrador, where the officer is resident for the summer only. Officers in charge of different phases of agricultural development visit each district on assignments from the St. John's office.

Departmental policies in support of the agricultural industry include: assistance in the clearing of land with government-owned and -operated tractors; a bonus of \$125 an acre on land cleared by privately owned equipment; the distribution of ground limestone at a subsidized rate; the payment of bonuses on purebred sires; and financial assistance to agricultural societies, marketing organizations and exhibition committees. An inspection service is provided for poultry products, vegetables and blueberries, production of the latter being encouraged by the burning of suitable berry areas and the improvement of roads and trails leading to them. Small fruit development generally is promoted through the distribution of quality foundation stock.

Every encouragement is given to the production of livestock. An experimental sheep flock is maintained. Poultry and beef production have increased with favourable marketing conditions and with departmental assistance and loans under the Provincial Farm Development Loan Act. Two veterinarians supervise the health of animals program and the joint federal-provincial project for the eradication of bovine tuberculosis.

The Agricultural Division co-operates with the Department of Education in furthering the 4-H Club movement in the Province and accepts responsibility for all projects pertaining to agriculture.

Prince Edward Island.—The activities of the Provincial Department of Agriculture are suggested by its staff which includes, in addition to the Minister and Deputy Minister, a Dairy Superintendent and Assistant, two Check Testers, a Director of Veterinary Services and six subsidized practicing Veterinarians, a Horticulturist, a Soil Analysis Assistant, a Poultry Director, an Agronomist, a Director of Field Work and three Agricultural

* Information supplied by the agricultural authorities of the various provinces.

Representatives, a Chief Forester and Assistant, a Director of Farm Improvement, a Nursery Supervisor, and a Director, an Assistant Director and two Extension Workers of Women's Institutes.

Nova Scotia.—The Department of Agriculture and Marketing endeavours to "help the people to help themselves" through strengthening member interest in such organizations as the Nova Scotia Federation of Agriculture, Nova Scotia Fruit Growers' Association, various agricultural co-operative organizations, credit unions and producer organizations. The Department is assisted by the Nova Scotia Advisory Committee on Agricultural Services which has been established to promote agricultural policies and projects of the Federal and the Provincial Departments of Agriculture. The Committee meets quarterly to determine how the work of these Departments may be co-ordinated and directed through integrated agricultural policies and with a minimum duplication of services.

New Brunswick.—Provincial Government agricultural policy in New Brunswick is directed by the Department of Agriculture. The Department is headed by the Minister of Agriculture who is assisted by a Deputy Minister and the Directors of the following services: extension, livestock, dairy, veterinary, poultry, horticulture, field husbandry, soils and crops, plant protection and promotion, agricultural engineering, home economics, Credit Union Co-operative Association, agricultural education, apiculture, and agricultural societies.

Quebec.—The Department of Agriculture of Quebec comprises eleven services: rural education, rural economy, extension, animal husbandry, horticulture, field husbandry, information and research, home economics, animal health, rural engineering and the secretariat. Each service is divided into sections dealing with particular problems.

The Department also includes many other special organizations such as the Research Council, the Dairy Industry Commission, the Dairy School of St. Hyacinthe, the Provincial Extension Farm (Deschambault), the Fur Bearing Animals Extension Farm (St. Louis de Courville). The Farm Credit Bureau, the Quebec Sugar Refinery (St. Hilaire) and the Veterinary College (St. Hyacinthe) are also under the authority of the Minister of Agriculture and the Office of Rural Electrification is connected with the Provincial Executive Council.

The annual competition for the Agricultural Merit Order, organized in 1890, is held successively in each of five regions. Each contest lasts five years and covers the various farm products; its main objective is to ascertain the personal merit of the competitors who have most distinguished themselves and can serve as examples. County Farm Improvement Contests have been conducted for more than twenty-two years and are still very popular. Over 6,000 competitors have already benefited from these contests which promote better methods of culture designed to increase farm income.

The Drainage Service deals with soil improvement or land reclamation by dredging the large watercourses with its own equipment or under contract and by renting equipment at very low rates to farmers who want to improve their croplands. The Department of Agriculture also gives assistance in the form of grants towards such projects. Soil improvement measures include large drainage projects carried out by the Department and smaller projects carried out by groups of farmers with government help. In 1955, 32,410 farmers benefited from help given by this Service.

Various forms of assistance are offered towards improvement of crops and livestock. An artificial insemination station operates at St. Hyacinthe for the benefit of breeders' clubs, and plant breeding stations for cereal and forage crops, vegetables and small fruits are maintained in a number of localities. Trained specialists are employed in the work of controlling plant and animal pests and diseases; the main laboratories are situated at Quebec City and field laboratories are located in different districts or in schools.

Agricultural co-operation is widespread in Quebec. There are 542 co-operatives with about 68,000 members and 89 agricultural societies with 28,865 members to serve local interests and organize county exhibitions. There are also 726 Cercles de Fermières

(Women's Institutes) in operation with a membership of 41,000; 458 farmers' clubs with a membership of 22,042, and 142 junior farmer clubs where 4,062 young boys and girls are working on numerous practical agricultural projects.

The Farm Credit Bureau was established in 1936. During 20 years of operation the Bureau has made 45,238 loans to the farmers of Quebec amounting to a sum of \$120,000,000; 21,006 of these loans were for the establishment of young men on farms.

Ontario.—The Ontario Department of Agriculture provides financial assistance and administrative services to agriculture through its Head Office, twelve branches, three experimental farms, two demonstration farms, and through research and extension work carried on at the four educational institutions under its administration. Head Office, in addition to general administration, administers policies providing assistance to farmers and settlers in northern Ontario in connection with land breaking and clearing and improvement of farms and livestock.

The Live Stock Branch promotes livestock improvement policies, licenses and examines stallions and gives support to purebred livestock associations.

The Field Crops Branch assists in the development of good cultural practices and promotes the use of improved strains of seed, the improvement of pastures and the eradication of weeds.

The Dairy Branch provides an inspection, instruction and supervision service to all dairy factories and promotes the production of clean milk on farms.

The Farm Economics Branch conducts cost studies on agricultural production in co-operation with agricultural organizations.

The Fruit Branch enforces fruit and vegetable regulations, provides information to growers and administers the Co-operative Loans Act.

The Co-operation and Markets Branch administers the Farm Products Marketing Act, the Ontario Food Terminal Act and the Farm Products Containers Act.

The Milk Control Board, under the Milk Industry Act, regulates and supervises the marketing of fluid milk.

The Agricultural and Horticultural Societies Branch gives assistance to agricultural and horticultural fairs and exhibitions, ploughing matches and other competitions, and administers the Community Centres Act.

The Extension Branch carries on an educational and extension service through agricultural representatives located in all counties and districts and gives direction to 4-H Club work and the Ontario Junior Farmers' Association. Through the Home Economics Service, the Extension Branch gives leadership and direction to organized activities of rural women.

The Statistics and Publications Branch, in co-operation with the Dominion Bureau of Statistics, provides a crop-reporting service and gathers and disseminates data on crops, livestock and dairy products.

The Ontario Junior Farmer Loan Branch administers the Ontario Junior Farmer Establishment Act.

The Horticultural Experiment Station at Vineland, the Western Ontario Experimental Farm and Agricultural School at Ridgetown, the Demonstration Farm at New Liskeard, the Kemptville Agricultural School, the Ontario Agricultural College including Macdonald Institute, and the Ontario Veterinary College at Guelph, all under the administration of the Department, provide research and extension services to Ontario agriculture.

The Ontario Department of Agriculture is also responsible for the administration of the Ontario Telephone Authority.

Manitoba.—The Department of Agriculture serves Manitoba through the following branches: agricultural extension; livestock; dairy; soils and crops; agricultural publications and statistics; weeds administration; co-operative services; and the provincial veterinary laboratory.

The Extension Service deals with agricultural economics, horticulture, poultry, agricultural engineering, beekeeping, 4-H Clubs and women's work, and has specialists devoting attention to these subjects. Meetings, field days and short courses are held. Thirty-five agricultural representatives are located throughout the Province, each serving from one to five municipalities; twelve home economists serve designated areas.

The Live Stock Branch administers the Animal Husbandry Act, develops and administers policies that encourage the improvement and production of livestock, and works in close co-operation with the Veterinary Laboratory Service and the Federal Health of Animals Division in the control of livestock diseases.

The Dairy Branch administers the Dairy Act, supervises the grading of cream, inspects creameries and cheese factories, gives instruction in cheese and butter making, issues licences to makers of dairy products and to cream graders and conducts a dairy-cost study among milk producers. Extension activities include addressing meetings and preparing articles and leaflets on dairy farm problems.

The Soils and Crops Branch deals with grain and forage crops, conservation and fertility and provides liaison between the Province of Manitoba and the Government of Canada in regard to PFRA projects. The Branch develops and administers policies that encourage good field crop husbandry and conservation practices.

The Agricultural Publications and Statistics Branch publishes and distributes annually approximately 100,000 bulletins, circulars, posters, leaflets, etc.

The Weeds Administration Branch directs the activities of 18 municipal weed control units comprising 70 rural municipalities engaged in eradicating deep rooted, persistent, perennial weeds; supervises weed demonstrations; investigates weed problems; conducts weed surveys; and prepares weed literature, radio addresses, articles, pictures, mounted weed specimens, etc.

The Co-operative Services Branch takes care of the registration and supervision of co-operatives and credit unions and the administration of the Acts governing them. The Branch also collects and compiles statistics on co-operative activity throughout the Province.

The Veterinary Laboratory operates a diagnostic laboratory for animal diseases, the services of which are available to veterinarians and livestock owners.

Saskatchewan.—The Saskatchewan Department of Agriculture is organized in the following branches and services.

The Administration Branch handles general staff records and accounts. Data on crop conditions, production, marketings and income are collected and farm information dispensed daily over seven private radio stations.

The Agricultural Representative Service has a field staff of 37 agricultural representatives, four area supervisors and specialists in farm management and visual aids. An extension field staff is provided for all Branches of the Department as well as for the other agencies operating within the Co-operative Agricultural Extension Program. Agricultural representatives are active in all federal, provincial and university farm services. In farm labour matters co-operation is maintained with the Federal Department of Labour and the National Employment Service in directing annual movements of farm labour in and out of the Province. Agricultural representatives work through Agricultural Conservation and Improvement Committees in each rural municipality and local improvement district to supply the farmer with scientific and practical information. Committees study local farm problems and initiate improvement programs. Through an Earned Assistance Program the Department pays one-half the cost of local group development projects.

The Animal Industry Branch has four divisions. The Dairy Division administers dairy herd improvement programs and assists producers with management and production problems; inspects and licenses dairy manufacturing and frozen-food locker plants; and administers dairy, locker plant and margarine legislation. The Livestock Division encourages the use of suitable animals for breeding purposes by the establishment of purebred

sire areas and by assistance in the purchase and distribution of stallions, bulls, boars and rams. It registers brands, licenses livestock dealers and agents and promotes programs on insect control, feeding and management. The Poultry Division maintains flock testing and turkey grading services; administers an approved hatchery policy, licenses produce dealers and poultry buyers, hatcheries and hatchery agents. It also assists with poultry shows and field days and otherwise promotes flock improvement. The Veterinary Division assists students in veterinary science under a scholarship plan, administers disease testing and vaccination programs and co-operates with Federal Government officials and local veterinarians in disease prevention and control.

The Conservation and Development Branch provides engineering services for irrigation development, usually in co-operation with the Federal Government, and for drainage programs and projects. Reclamation of land by drainage, development of misused land and under-utilized land, and construction of provincial community pastures all come within its jurisdiction. The Branch administers the Farm Implement Act and provides engineering assistance to conservation and development areas, water users' districts, and irrigation districts in connection with water control projects.

The Lands Branch administers all Crown, school and Land Utilization Board lands except forest reserves and parks in the settled area of the Province; classifies it according to the use for which it is best suited; disposes of such lands under long-term leases; secures land control for land utilization projects; supervises new settlement projects and operates provincial community pastures.

The Plant Industry Branch organizes and administers programs for crop improvement and crop protection, and advises on seed and crop improvement, soil conservation, horticultural problems, weed control and management of irrigated land. The improvement of grassland is promoted through a forage crop program. The Seed Plant Division carries on custom cleaning of forage seeds and registered cereals. The Apiary Division advises on beekeeping and honey production, supervises and carries on continuous inspection.

Alberta.—The Alberta Department of Agriculture is organized in the following branches and services.

The Field Crops Branch administers programs and policies relating to crop improvement, soil conservation and weed control, crop protection and pest control, horticulture and apiculture. Agricultural Service Boards have been organized in municipal districts to assist with agricultural programs, and the Department of Agriculture is represented on each Board.

The Live Stock Branch aids in maintaining the quality of herds and flocks by assisting farmers in securing purebred herd sires and assists artificial breeding associations in the breeding of dairy cattle. The Branch also supervises livestock feeder associations and administers legislation relating to stock inspection, brands, domestic animals and the sale of horned cattle.

The Dairy Branch administers the Dairymen's Act and the Frozen Food Locker Act. Grading and purchasing of raw produce by all dairy plants are under regulation, as are standards of construction, manufacture, processing, sanitation, and temperature control for dairies and frozen food lockers. A regular cow-testing service is available to dairy producers and the Branch laboratory conducts chemical and bacteriological analyses needed for industrial directives. Yearly cost studies and dairy farm management services are in operation in the principal milk-producing areas.

The Poultry Branch carries on programs for the improvement of poultry husbandry and supervises flock approval for the control of pullorum disease. The Branch issues hatchery, wholesale, first receiver and truck licences for the handling of poultry products.

The Veterinary Services Branch provides scientific diagnoses of livestock and poultry diseases through its laboratory; conducts investigations of disease conditions; lectures in veterinary science at the University of Alberta, Schools of Agriculture, and many meetings; and promotes government policies aimed at reducing losses throughout the Province.

The Agricultural Extension Service operates 43 offices and employs the services of 56 districts agriculturists and 20 district home economists. The district agriculturists assist farmers with their problems and advance departmental policies designed to improve the standard of agricultural practices. The district home economists provide a similar service for farm women. Bulletins are prepared dealing with agricultural and home economics topics. The Branch is responsible for the supervision of agricultural societies and, in co-operation with the Federal Department of Labour, is concerned with recruitment and placement of farm labour.

The Fur Farms Branch administers the licensing and exporting of live animals and pelts, and assists fur farmers in care, management and stock improvement.

Schools of Agriculture and Home Economics are operated at Olds, Vermilion and Fairview (*see* p. 412).

A Radio and Information Branch conducts five broadcasts a week over seven radio stations and issues weekly bulletins to press and radio.

The Water Resources Branch deals with water rights, drainage, irrigation, and water power development.

The Land and Forests Utilization Committee, composed of representatives from the Department of Lands and Forests, Power Commission, Department of Municipal Affairs, University of Alberta and the Department of Agriculture, deals with the proper use of submarginal agricultural land.

British Columbia.—The Department of Agriculture has four main branches. The Administrative Branch is responsible for the general direction of agricultural policies, administration of legislation affecting agriculture and for the compilation of reports and publications. This Branch also maintains direct supervision of the Field Crops, Soil Survey, Plant Pathology, Entomology, Apiary, Markets and Statistics, Farmers' Institutes and Women's Institutes Branches.

The Livestock Branch engages in the promotion and supervision of the livestock industry and provides veterinary services affecting disease control regulations as well as supervising stock brands, inspection of dairy and fur farm premises, and inspection of beef grading. The Branch also supervises the operations of the Dairy Branch in the inspection of commercial dairy premises. Officials are stationed at 11 centres throughout the Province.

The Horticulture Branch supervises fruit, vegetable and seed production, and provides advice on plant diseases and insect pest control. The Branch maintains field offices at 11 points in the southerly section of the Province.

The Agricultural Development and Extension Branch offers general information services to farmers through 20 offices which cover all major farming districts. In addition, this Branch provides agricultural engineering service, supervision of the Government land clearing program, farm labour services and promotion of junior club projects. The Poultry Section of the Branch offers extension services to the poultry industry.

Subsection 2.—Agricultural Colleges and Schools

All provinces provide facilities for training in agricultural science at university level. Such colleges are administered by either the Department of Agriculture or the Department of Education of the respective province.

Newfoundland.—There are no agricultural colleges in the Province, but the Agriculture Division of the Department of Mines and Resources provides a number of scholarships annually for young men to attend agricultural colleges in other provinces.

Prince Edward Island.—A two-year course in scientific agriculture offered at Prince of Wales College, Charlottetown, prepares students for third year at Macdonald College, Que.

In the Vocational School short courses provide knowledge and skill in agricultural pursuits and develop in the student a sense of the dignity and importance of agriculture as a calling and an understanding of the importance of the industry to the Province.

Nova Scotia.—The Nova Scotia Agricultural College at Truro offers three courses: the first two years of a degree course in agriculture; a two-year course in general agriculture; and a two-year course in vocational agriculture. The College assists in conducting short courses at various provincial centres, supports Folk Schools and gives direction to 4-H Club organizations. Tuition is free for Canadian students.

New Brunswick.—The Province's four Agricultural Schools are located at Woodstock, Fredericton, St. Joseph and St. Basile. Two-term agricultural courses extending over five months each year are offered at St. Joseph, Fredericton and St. Basile and at Woodstock a three-year course is conducted. The curriculum includes training in all phases of agriculture, shop and general academic work. Ten-month home economics courses are also offered at Woodstock and St. Joseph.

Quebec.—Courses in agricultural schools in Quebec include a four-year university course leading to a degree of Bachelor of Science in Agriculture at the following universities: Laval Faculty of Agriculture (Ste. Anne de la Pocatière); L'Institut Agricole d'Oka (affiliated with the University of Montreal); and McGill Faculty of Agriculture (Macdonald College). At the Provincial Veterinary School (St. Hyacinthe), affiliated with the University of Montreal, a four-year course is offered leading to a Doctorate in veterinary medicine. There are nine secondary agricultural schools throughout the Province, and ten regional schools and six orphanages offer courses in agriculture. More than 1,500 students, the great majority of whom are sons of farmers, attend these intermediate and regional schools of agriculture and in the orphanages 150 pupils follow practical agricultural courses. A farm is always annexed to the school for practical training and specialists give instruction on the maple sugar industry, farm mechanics, co-operatives, plant protection, veterinary hygiene, aviculture, marketing and silviculture. School co-operatives and clubs are organized and directed by the pupils under the supervision of their professors. Household science training for the daughters of farmers and settlers is given in five of these schools.

Ontario.—The two-year course of the Ontario Agricultural College for the Associate Diploma in Agriculture provides basic training in agriculture. Young persons interested in making agriculture their vocation study the application of science to agricultural practice and receive training for rural citizenship.

The four-year course for the degree of Bachelor of Science in Agriculture gives fundamental education in the science of agriculture. A sound training is provided for farming as a profession, for entrance into government extension and allied agricultural services, agricultural industry, teaching and, for those who wish to proceed to graduate studies, for the Master's and Doctorate degrees.

Graduate courses are offered leading to the degree of Master of Science in Agriculture. Graduate students are enrolled in a department or departments of the Ontario Agricultural College conjointly with a department or departments of the University of Toronto for advanced courses of study and training in experimentation and scientific investigation. M.S.A. graduates may go into teaching, research, or for further postgraduate study.

Macdonald Institute offers young women a one-year course of practical training in the art and science of homemaking. This earns a diploma of merit but gives no professional standing. A four-year professional course is available leading to a Bachelor of Household Science degree granted by the University of Toronto. University matriculation standing is necessary to enter the four-year course.

The Ontario Veterinary College offers a five-year course leading to the degree of Doctor of Veterinary Medicine. In addition to its function as a teaching institution, the College is a research centre for diseases of animals and provides free consultation for veterinary surgeons in practice as well as extension services in the interests of the livestock industry.

The Kemptville Agricultural School offers diploma courses as follows: a two-year diploma course in agriculture (two terms of six months each) giving practical training in modern farm methods designed primarily for young people who wish to farm but serving also as a preparation for many other occupations closely connected with agriculture (stress is laid on the development of community leadership); one year advance course in agriculture mechanics for diploma graduates in agriculture; a one-year diploma course (six-month session) leading to a diploma in homemaking and qualification for the less exacting positions in fields of home economics; a two-year diploma course (two terms of six months each) for girls wishing to prepare for positions in the tourist trade, food services, sewing centres and other fields of home economics; a three-month winter course for all dairy apprentices leading to the Dairy School Diploma required for certified buttermakers, cheesemakers and operators of dairy manufacturing plants. A 450-acre school farm and residence life are features of the Kemptville Agricultural School.

Western Ontario Agricultural School offers a practical course for young men who propose to return to farming. It consists of two winter courses of 20 weeks each, starting late in October and ending late in March. All subjects relating to agriculture are included in the curriculum.

Manitoba.—The Faculty of Agriculture and Home Economics of the University of Manitoba offers degree courses in agriculture and home economics as well as the two-year, sub-collegiate diploma course in agriculture. Practical one-season courses in agriculture and homemaking are also given at the Brandon Agricultural and Homemaking School. Graduates in agriculture from this School are admitted to the second year of the diploma course at the University.

Saskatchewan.—Saskatchewan offers a degree course in agriculture designed to meet the needs of those who intend to teach agriculture in secondary schools or colleges, to engage in research or administrative work, or to farm. Specialization is possible with permission of the faculty. Provision is made for combined courses in agriculture and arts or commerce. Postgraduate courses are available.

The Saskatchewan School of Agriculture offers a practical course intended to give sound training in farm practice and also to train young men to become rural leaders.

All courses leading to a degree in home economics require four years. The prescribed course of studies for the first two years is the same for all pupils but in the third and fourth years four types are offered: (1) for teachers, (2) for dietitians, (3) general, and (4) additional specializations. A combined course leading to a degree in arts and science and in home economics requires at least five years.

Alberta.—The University of Alberta offers a four-year degree course in agriculture to students with senior matriculation or its equivalent. Students may elect a general program or major in a wide range of special courses in the fields of animal science, economics, entomology, dairying, plant science, and soils. Graduate work at the Master's level is offered in all departments and at the Doctorate level in some.

The Alberta Schools of Agriculture and Home Economics, located at Olds, Vermilion and Fairview, offer practical courses in agriculture and homemaking. The purpose of the schools is to train young men for farming and young women for homemaking. Boys and girls must have Grade IX standing for entrance into the regular two-term course. A one-year course is offered to those who have 70 or more high school credits. Modern living accommodation is provided as well as auditorium and gymnasium facilities.

During the summer months the schools are used for agricultural meetings and conferences of organizations that are connected with agriculture. During the month of July, leadership courses, 4-H Club gatherings, farm camps and other events keep the facilities in constant operation.

British Columbia.—The Faculty of Agriculture at the University of British Columbia offers a four-year general degree course in agriculture and a five-year honours course. In the honours course there are 15 fields in which a student may specialize. Work is also offered by the Faculty of Agriculture in the Faculty of Graduate Studies through

which a student may proceed to the degrees of Master of Science in Agriculture and Master of Science; in a limited number of fields, work is offered at the Doctorate level. The Faculty also offers a one-year or two-year diploma course in occupational agriculture, adaptable to the needs of individual students.

In co-operation with various branches of the provincial Department of Agriculture and under the auspices of the University Extension Department, the Faculty of Agriculture also offers a number of short courses which vary in length from one or two days to several weeks.

Section 3.—Agricultural Irrigation and Land Conservation

Subsection 1.—Federal Projects*

Prairie Farm Rehabilitation Act

The Federal Government passed the Prairie Farm Rehabilitation Act in 1935 authorizing an expenditure of \$4,750,000 over a five-year period to provide for the rehabilitation of the drought and soil drifting areas in the Prairie Provinces. An amendment in 1937 extended the scope of the program by providing for the withdrawal of poor quality lands from cultivation and the resettlement of the farmers operating such lands. A further amendment in 1939 removed the limitation as to time and amount of expenditure. The policies and projects carried out under the Act vary widely in nature and scope but each has as its objective the better utilization of land to minimize the problems of drought, or the conservation of water for farm purposes.

Special votes have been passed by Parliament from time to time for the development of large irrigation projects in the Prairie Provinces and land reclamation and development works, including flood control, which because of their size are not included in the PFRA appropriation. These works, however, are carried out by the PFRA organization, which has its head office in Regina, Sask. Most of the large undertakings under the special votes are carried out and financed jointly with the provinces under agreements setting out the responsibilities of each party in the development work.

Water Conservation Projects.—PFRA provides engineering and financial assistance to farmers in the construction of water conservation works as a rehabilitation measure within drought areas of the three Prairie Provinces. The amount of financial assistance awarded is largely dependent upon the type and size of the project contemplated. At all times PFRA policy is to provide assistance to farmers to rehabilitate themselves. Authority to proceed with construction is secured through the respective provincial water rights departments.

During 21 years of operation PFRA has provided assistance to farmers to construct 52,461 individual farm dugouts and small dams, many of which are suitable for irrigation. These projects have extended widely the benefits of water throughout the dry areas. Adequate water storage facilities have been provided where water shortages exist and dependable water supplies assured, through irrigation for domestic requirements, for stock watering and for the production of livestock feed. Thus a great many farmers have been rehabilitated on their present holdings.

The development of community projects is necessarily confined within the narrow reaches of well-defined watersheds where sufficient water resources are available. Where a group of farmers organizes a water users' association or a rural municipality provides leadership in an irrigation or water storage project, PFRA co-operates with the local body. The usual procedure is for the Government of Canada to assume the capital cost of storage and connecting works and the provincial body to assume the responsibility for the distribution of water to the land or along the watershed. The local body also undertakes maintenance and operation.

* Prepared under the direction of Dr. J. G. Taggart, C.B.E., Deputy Minister of Agriculture, by G. J. Matte, Associate Director of Rehabilitation.

To Mar. 31, 1956, PFRA provided the necessary assistance to construct 357 community projects, the majority of which are located on six watersheds originating in the three Prairie Provinces. These projects conserve the surplus spring runoff water to supplement short supply later in the year. Community projects also provide homes for farmers moved from submarginal areas to where they can be assured a livelihood.

PFRA's responsibility for the development of large community irrigation schemes terminates with the construction of primary reservoirs and connecting canals. However, where the need for early returns to farmers proved imminent, PFRA has assisted further in the development of the irrigable land and has maintained a constant surveillance of the project's operations and progress. At times agreement has been reached between PFRA and the provincial government concerned whereby PFRA provides engineering and financial assistance to construct primary works and the province agrees to assist with the development of the irrigable area. Such an agreement is in effect in connection with sections of the Swift Current Irrigation project being developed in Saskatchewan.

Major Irrigation Projects.—*St. Mary Irrigation Project.*—The St. Mary Irrigation project was undertaken by agreement between the Government of Canada and the Province of Alberta. The Government of Canada agreed to construct the main supply reservoirs and connecting works. The Province undertook the responsibility for construction of the auxiliary reservoirs and distribution system from the main works to the land. The St. Mary River System is by far the most important irrigation project undertaken in Canada and, when completed, will irrigate an area of approximately 510,000 acres. Construction of the St. Mary Dam, key structure on the whole project, was completed in 1951. It is 195 feet high and 2,536 feet wide and creates a reservoir capable of storing 320,000 acre-feet of water. Approximately 200 miles of main canal have been built.

South Saskatchewan River Development.—This development in central Saskatchewan is a proposed multi-purpose project to be used for developing power and irrigation, the irrigable area lying between the town of Elbow and the city of Saskatoon. The key structure on the project will be a dam on the South Saskatchewan River located at a point midway between the towns of Outlook and Elbow.

The plan is to stabilize agriculture in the south central area of the Province where prolonged droughts have created serious economic problems for over 50,000 farmers. Full use will be made of the river's control, power, urban water supply and recreational benefits.

Bow River Irrigation Project.—The Bow River project was purchased by the Government of Canada in 1950 from the Canada Land and Irrigation Company, a private British interest. Development of this project will ensure water supply to 100,000 acres of land at present irrigated and will bring an additional 140,000 acres of provincial and privately owned lands "under the ditch". Work has progressed rapidly on construction and the repair and enlargement of old structures. The Government of Alberta is responsible for the construction of the distribution system for provincial and privately owned lands (see p. 417).

Red Deer Irrigation Project.—The proposed Red Deer River development concerns the irrigation of an estimated 400,000 acres of land located in the east central part of Alberta. The project will consist of a dam on the Red Deer River at Ardley and about 100 miles of main canal to two main reservoirs—Craig Lake and Hamilton Lake. The dam will contain power installations to produce power for pumping and also for sale commercially. An estimated 20,000,000 kwh. of water power will be available for sale when power is fully developed.

British Columbia Projects.—Irrigation development in British Columbia has been undertaken in connection with the Veterans' Land Act and at the request of the British Columbia Government. Three projects (the Chase irrigation project and the Johnstone Western Canada ranching projects No. 1 and No. 2) have been completed within the South Thompson Valley area. On these projects 809 acres of land have been developed for irrigation for the benefit of approximately 40 veterans of World War II.

In the Okanagan Valley three new projects have been completed, the Westbank irrigation project and the Bankhead project near Kelowna, and the Cawston Benches project located east of the town of Keremeos. The three projects irrigate 1,782 acres of land and provide locations for 170 veterans of World War II. The Penticton West Benches project, irrigating approximately 200 acres and accommodating 97 veterans on small holdings was completed in 1953.

Intensive farming is practised in the Okanagan and South Thompson Valleys. The land developed for irrigation by PFRA is used mainly for the growing of small fruits and vegetables and for dairying.

Reclamation Projects.—*Riding Mountain Reclamation Project.*—At the request of the Manitoba Government extensive investigations have been undertaken by PFRA in the Riding Mountain area where a serious flood problem exists on a number of streams flowing off the north and east slopes of Riding Mountain and Duck Mountain. The land area affected by flooding is in the neighbourhood of 252,000 acres. The cost of reclamation is borne jointly by the Governments of Canada and Manitoba. Construction work consists of clearing and dyking stream channels, prevention of streambank erosion, and aligning channels by building cutoffs and diversions.

Assiniboine River Project.—This project is being undertaken by PFRA at request of the Manitoba Government to prevent flooding on the Assiniboine River, particularly between Brandon and Virden and between Portage la Prairie and Headingly, where thousands of acres of valuable agricultural land have been inundated repeatedly. Detailed study is being given to water runoff data in the Assiniboine River Drainage Basin, and the building of water storage works on the headwaters of the Assiniboine River is under way.

Saskatchewan River Reclamation Project.—Surveys and investigations were made by PFRA to determine the possibility of successfully reclaiming land for agriculture in the Pasquia area of the Saskatchewan River delta region near the town of The Pas in Manitoba. As a result an agreement was reached early in 1953 between the Government of Canada and the Province of Manitoba for the construction of the necessary reclamation works to protect the area from flooding and to settle about 96,000 acres of suitable land—the Government of Canada to assume the cost of building the main protective works, and the Province the costs of settlement, maintenance of works, and internal drainage. One-half of the reclaimed land is to be reserved for the resettlement of farmers from drought areas and the remainder is to be sold. Part of the proceeds from the sale of the lands will go to the Federal Government as a partial reimbursement of the costs of building the main protective works. Construction began early in 1953.

Lillooet Valley Reclamation Project.—This project was undertaken upon agreement between the Government of Canada, the Government of British Columbia and the Pemberton Valley Reclamation District and is located in the Lillooet River Valley above and below the town of Pemberton. Its objective is to protect lands now under cultivation from flooding and to reclaim additional lands by dyking and drainage. The land so far reclaimed amounts to 14,000 acres, which allowed farmers in the district to increase their holdings and permits the settlement of hundreds of additional inhabitants.

Land Utilization.—In addition to cultivation and water conservation activities, rehabilitation of drought areas involves the conversion of large tracts of land (proved unsuitable for crop production) to livestock production through cultivation of a permanent grass cover and the relocation of farmers residing thereon. To this end the PFRA land utilization program has constructed 62 operating pasture units, resulting in the reclamation of 1,712,240 acres of submarginal land. During the year ended Mar. 31, 1956, summer grazing was provided for 108,537 head of livestock owned by 5,632 patrons living on lands adjacent to these pastures.

An extensive improvement program is in effect on all pastures and is begun as soon as new areas are enclosed. This policy has more than doubled the 1938 average carrying capacity on pasture land. The improvement policies most extensively practised in al

pastures are: regrassing—since 1938 approximately 193,083 acres of land in community pastures have been regrassed; development of stock watering sites—to Mar. 31, 1956, over 1,000 stock watering dams, dugouts and wells have been constructed in community pastures; and pasture management and controlled grazing.

Maritime Marshlands Rehabilitation Act

The marshlands of Prince Edward Island, Nova Scotia and New Brunswick are among the more productive soils in Canada when protected from tidal flooding and properly cultivated. They are composed of deposits laid down by tidal waters and are for the most part adjacent to the Bay of Fundy.

The initial areas were reclaimed as early as 1630 and since that time about 80,000 acres have been protected by dykes and aboiteaux, but through a variety of circumstances—loss of cattle markets, loss of hay markets and the increase in labour costs—maintenance of these protective structures was not adequately carried out and deterioration resulted. Because the marshlands, when protected, are important in the agricultural economy of the provinces concerned, the Government of Canada and the Provincial Governments of Nova Scotia and New Brunswick passed legislation permitting a program of reclamation and rehabilitation of these lands. The federal Act (the Maritime Marshlands Rehabilitation Act) was passed in 1948 and complementary provincial marshland reclamation Acts were passed by the Nova Scotia and New Brunswick Governments in 1949. These Acts permitted agreements to be signed whereby the Government of Canada would construct or reconstruct the protective works and would assume the responsibility of maintaining these works until they were turned over to the Provinces. The Federal Government is responsible also for any engineering work in connection with the complete program. The Provinces are responsible for the organization of the marsh areas, the freshwater drainage and acquisition of any land required and for the initiation and follow-up of a suitable land-use program. Because of the small area of marshland in Prince Edward Island no provincial legislation was considered necessary in that Province.

By Mar. 31, 1956, the Provinces had asked to have 151 areas considered for reclamation purposes. These comprised 35,565 acres in New Brunswick, 46,251 acres in Nova Scotia and 275 acres in Prince Edward Island. This total of 82,091 acres constitutes an integral part of the estimated 490,000 acres of farm land in the three provinces.

Investigations to determine the advisability of constructing a large structure to eliminate the need for many miles of dyke and many aboiteaux are being carried out on the Annapolis River in Nova Scotia and on the Tantramar and Shepody Rivers in New Brunswick. Construction on the Shepody River project was started in 1953 and all major works were completed in 1956.

Subsection 2.—Provincial Projects

Saskatchewan.*—The Conservation and Development Branch, established in 1949, was made responsible for: administration of water rights; irrigation development, engineering and structures; flood control and drainage; restoration of abandoned, under-utilized and misused lands; and construction of provincial community pastures outside the area covered by the agreement with PFRA and not provided for in the agreement with the Federal Government.

The Provincial Department of Agriculture's conservation and development activity in the field of agricultural rehabilitation and reclamation is based on co-operation with the Federal Government's PFRA program with which a close working arrangement is maintained. Following is a summary of the activities of the Saskatchewan Department of Agriculture as at Dec. 31, 1956.

Water Rights.—Under the Water Rights Act, 5,719 water storage projects for domestic irrigation, municipal and industrial purposes covering 460,702 acre-feet of water have been licensed, and there are 111 gauging stations being maintained to complete hydro-

* Prepared by W. H. Horner, Deputy Minister, Saskatchewan Department of Agriculture.

metric surveys and a surface water inventory. The Water Rights Office represents the Province of Saskatchewan on the engineering committee of the International Joint Commission and on the Prairie Provinces Water Board.

Irrigation Development.—By the end of 1956, 114,010 acres of topographic surveys and 148 miles of strip topographic surveys were completed on irrigation projects; 295 miles of ditch were built and 143 miles maintained; 1,383 structures were installed and 27 maintained; and 4,993 acres were levelled.

Drainage Development.—Topographic surveys covered 136,804 acres and 5,240 miles of strip topographic surveys were completed on drainage projects; 832 miles of ditch and 245 miles of road were built and 148 miles of ditch maintained; 12 miles of dyke were built and 793 structures installed in drainage systems.

Development of Under-utilized and Misused Lands.—A total of 48,387 acres of tame perennial forage crops were seeded, mostly for fodder production; and 671 miles of fence were built or rebuilt in the establishment of departmental, municipal or co-operative pastures.

Miscellaneous Project Work.—Such projects included: regrassing about 17,564 acres; planting 580,700 trees; constructing 112 dams and dugouts (with the co-operation of groups of farmers in the area of northern Saskatchewan outside the boundaries of the PFRA program); and organizing 91 conservation areas covering 11,387,904 acres, in order to help local farmers install and maintain drainage and other conservation works.

Pasture Development.—Through the Lands Branch of the Provincial Department of Agriculture the Province has transferred title to 1,194,415 acres and leased without charge another 311,437 acres of grazing land to PFRA for the development of community pastures. Outside the PFRA program, the Province developed an improved 775,836 acres, making a total of 2,281,688 acres available as community pasture land. The 103 pastures outside the PFRA program are operated by co-operative associations, by municipalities or by the Provincial Department of Agriculture; those operated by the Province provided grazing in 1956 for 16,436 cattle owned by 866 local farmers.

Development of Land for Cultivation.—Crown lands, either under cultivation or suitable for cultivation, are leased for a 33-year period. The Province may either reimburse farmers in cash for the cost of clearing and breaking virgin land or the farmers may retain crop shares equivalent in value to costs sustained. To Mar. 31, 1957, the investment of the Province, recorded by the Lands Branch of the Provincial Department of Agriculture, for land clearing and breaking amounted to \$5,739,292, and included work done in six settlement projects involving about 240 farm units where 50 acres were cleared and broken before the land was leased.

Alberta.*—The Alberta Water Resources Act gives the Minister of the Department of Agriculture wide powers to investigate the water resources of the Province and extensive surveys have been carried out to determine the distribution and extent of the available water supplied in the Province and the most beneficial use for irrigation, water power and other purposes. The Water Resources Branch of the Provincial Department of Agriculture administers the licensing of water power projects and the construction work in several irrigation projects. Irrigation projects are also licensed and water allocated for domestic and irrigation purposes. Other work includes administration of drainage districts, co-operation on the Peace River Dug-out Project and on river protection projects where flooding occurs. In more recent years much of this work has been carried out by the Federal Government in co-operation with the Provincial Government.

Stream measurement is being done by the Hydrometric Service of the Federal Department of Northern Affairs and National Resources and irrigation surveys are carried out largely by the water development organization under the PFRA (see p. 413).

* Prepared by R. M. Putnam, Deputy Minister, Alberta Department of Agriculture.

The Calgary Power Company has completed a fairly detailed water power survey of the Bow River and its tributaries and, as a result has constructed a number of water power reservoirs and power stations on the stream. Also, in co-operation with the Provincial Government, the Company has made a preliminary survey of Lesser Slave River and the Athabasca River from Athabasca to McMurray. The study of the North Saskatchewan basin is continuing more particularly in its main tributary, the Brazeau, where foundation, topographic and hydrometric information is being gathered. This study will cover measures to increase power supply and augment low winter flow.

By Order in Council, Feb. 17, 1941, the St. Mary and Milk Rivers Water Development Committee was set up to investigate and report on the many phases of irrigation development of southern Alberta, including water supplies available to Canada from the Waterton, Belly, St. Mary and Milk Rivers; the most feasible plan to put these waters to the most beneficial use; the benefits that such water development projects would confer on federal and provincial interests; the allocation of costs; and methods that might be adopted to finance such developments. The Committee completed a thorough investigation and published a comprehensive report on the projects on the international streams, and also on other projects in the Province.

The allocation of water to the major irrigation projects in Alberta, as approved by the Prairie Provinces Water Board, is as follows:—

| <i>Project</i> | <i>Acres Irrigable</i> | <i>Water Allocation in Acre-feet</i> |
|--|----------------------------|--|
| St. Mary-Milk Rivers Development..... | 465,000 | 796,000 |
| Western Irrigation District..... | 50,000 | 85,700 |
| Eastern Irrigation District..... | 281,000 | 562,000 |
| Bow River Irrigation Development..... | 240,000 | 478,534 |
| United Irrigation District..... | 34,000 | 51,000 |
| Lethbridge Northern District..... | 96,135 | 150,000 |
| Mountain View Irrigation District..... | 3,600 | 6,000 |
| Aetna Irrigation District..... | 7,300 | 13,000 |
| Leavitt Irrigation District..... | 4,400 | 7,000 |
| Macleod Irrigation District..... | 5,000 | 8,000 |
| Private Projects..... | 70,000 | 80,000 |
| TOTALS..... | 1,256,435 | 2,237,234 |

Developments during 1955-57 are outlined as follows:—

Irrigation.—Operation problems in the irrigated areas were under special study, particularly alkali and seepage.

St. Mary-Milk Rivers Development.—The low line canal was completed. A canal and diversion works from Waterton-Belly to the St. Mary dam was under construction by PFRA, and special soil studies were being made of the area under the high line canal.

Bow River Development Project (Western Block).—The construction phase of this project was started late in 1953. The irrigable area is approximately 60,000 acres and 17,000 acres were ready for operation. This development is the responsibility of the Province of Alberta.

Heart River Project.—Water became available to the towns of McLennan, Falher and Girouxville through this project.

River Protection and Stream Control.—Work proceeded on the Milk, Crowsnest and Bow Rivers.

High Prairie-Enilda Flooding.—Surveys were made to ascertain the possibility of controlling the East and West Prairie Rivers in the High Prairie-Enilda delta on the west end of Lesser Slave Lake.

Pembina River Flooding Problem.—Surveys were made to determine the feasibility of constructing cutoffs in the Pembina River channel to speed the water out of the Manola Jarvie flood areas.

Erosion.—The soil erosion problems in some areas have long been of considerable concern, with the immediate problem located in the Kleskun Hills near Grande Prairie. Remedial work under way consists of the construction of a system of flumes and drop structures to control gullying.

Industrial Water.—This phase of water development is becoming increasingly important to the progress of the Province. During 1956-57 several large industrial plants received water licences.

British Columbia.*—About 20 p.c. of the arable land in British Columbia is under cultivation and nearly all the grazing area is being utilized. The estimated 1,300,000 acres developed give a ratio of approximately one acre per person. Within this arable area there exists an estimated 210,000 acres of irrigated land, and the total acreage of irrigable land in British Columbia is estimated at 400,000 acres.

About three-quarters of the irrigated area is made up of individual projects and the other quarter is served by the larger irrigation projects listed in Table 5.

* Prepared by the Comptroller of Water Rights, British Columbia Department of Lands and Forests.

5.—Major Irrigation Projects in British Columbia, April 1957

| Project | Water Supply | Irrigable Area | Irrigated Area | Charge on Grade "A" Land per Acre | Locality |
|--------------------------------------|--|----------------|----------------|-----------------------------------|-----------------------|
| | | acres | acres | \$ | |
| Provincial Irrigation System— | | | | | |
| Southern Okanagan Lands Project..... | Okanagan River..... | 5,000 | 4,200 | 12.50 | Okanagan Valley |
| Municipal Irrigation Systems— | | | | | |
| Pentiction Municipality.... | Pentiction and Ellis Creeks.. | 2,100 | 2,050 | 20.00 | " |
| Summerland Municipality.. | Trout and Eneas Creeks.... | 3,436 | 3,365 | (av.) 13.39 | " |
| Irrigation Districts— | | | | | |
| Balfour..... | Laird Creek..... | 240 | 150 | — | Kootenay Valley |
| Bankhead..... | Kelowna and Mission Creeks | 85 | 85 | 22.05 | Okanagan Valley |
| Barriere..... | Barriere River..... | 182 | 92 | 5.00 | North Thompson Valley |
| B.C. Fruitlands..... | Jameson and North Thompson River..... | 3,735 | 2,062 | 15.75 | " |
| Black Mountain..... | Mission Creek, etc..... | 4,297 | 3,764 | 15.00 | Okanagan Valley |
| Black Sage..... | Okanagan River..... | — | 169 | 16.00 | " |
| Blueberry Creek..... | Blueberry Creek..... | 133 | 66 | 15.00 | Columbia Valley |
| Boundary Line..... | Osoyoos Lake..... | 95 | 95 | 11.70 | Okanagan Valley |
| Brent Davis..... | Mission Creek..... | 490 | 415 | 6.00 | " |
| Cawston..... | Similkameen River..... | 650 | 500 | — | " |
| Chase..... | Chase Creek..... | 639 | 625 | 2.50 | South Thompson Valley |
| Covert..... | 4th of July Creek..... | 280 | 280 | 5.00 | Near Grand Forks |
| Darfield..... | Lindquist Creek..... | 363 | 200 | — | North Thompson Valley |
| East Creston..... | Arrow Creek..... | 1,550 | 1,367 | 5.00 | Kootenay Valley |
| East Osoyoos..... | Osoyoos Lake..... | 329 | 188 | 25.00 | Okanagan Valley |
| Ellison..... | Kelowna Creek..... | 662 | — | 8.30 | " |
| Ericksen..... | Sullivan Creek..... | — | 110 | 5.00 | Kootenay Valley |
| Fairview Heights..... | Similkameen River..... | 631 | 611 | 24.25 | Near Princeton |
| Glenmore..... | Kelowna Creek..... | 1,926 | 1,926 | 13.00 | Okanagan Valley |
| Grand Forks..... | Kettle River..... | 2,600 | 2,400 | 6.25 | Kettle Valley |
| Heffley..... | North Thompson River..... | 1,648 | 1,648 | 3.14 | North Thompson Valley |
| Kaleden..... | Marron River and Shatford Creek..... | 548 | 539 | 22.85 | Okanagan Valley |
| Keremeos..... | Ashnola River, etc..... | 1,120 | 985 | 12.60 | Similkameen Valley |
| Lakeview..... | Lambly (Bear) Creek..... | 1,057 | 952 | 11.00 | Okanagan Valley |
| Malcolm Horie..... | Joseph Creek..... | 220 | 150 | 3.00 | Near Cranbrook |
| Merritt Central..... | Coldwater River..... | 125 | 100 | — | Nicola Valley |
| Naramata..... | Leguime, Naramata and Robinson Creeks..... | 981 | 981 | 19.51 | Okanagan Valley |
| Okanagan Mission..... | Bellevue Creek and Okanagan Lake..... | 446 | 362 | 17.00 | " |

5.—Major Irrigation Projects in British Columbia, April 1957—concluded

| Project | Water Supply | Irrigable Area | Irrigated Area | Charge on Grade "A" Land per Acre | Locality |
|---------------------------------------|---------------------------------------|----------------|----------------|-----------------------------------|-----------------------|
| | | acres | acres | \$ | |
| Irrigation Districts—concl. | | | | | |
| Osoyoos..... | Haynes Creek, etc..... | 203 | 203 | 25.00 | Okanagan Valley |
| Oyama..... | Long Lake..... | 362 | 342 | 22.00 | " |
| Peachland..... | Peachland Creek..... | 550 | 442 | 13.00 | " |
| Renata..... | Dog Creek..... | 149 | 120 | 12.00 | Columbia Valley |
| Robson..... | Pass Creek..... | 263 | 250 | 6.00 | " |
| Scotty Creek..... | Scotty Creek..... | 844 | 844 | 4.50 | Okanagan Valley |
| South East Kelowna..... | Hydraulic Creek..... | 2,975 | 2,975 | 12.90 | " |
| South Vernon..... | Vernon Creek..... | 319 | 207 | 5.00 | " |
| Todd Hill..... | South Thompson River..... | 140 | 113 | 12.00 | South Thompson Valley |
| Trout Creek..... | Trout Creek..... | 318 | 273 | 4.00 | Okanagan Valley |
| Valley view..... | South Thompson River..... | 150 | 128 | 3.00 | South Thompson Valley |
| Vermilion..... | Kindersley Creek..... | 1,483 | 1,483 | 6.25 | Columbia Valley |
| Vernon..... | Coldstream, Paradise Creeks, etc..... | 8,035 | 8,035 | 10.00 | Okanagan Valley |
| Vinsulla..... | Knouff Creek, etc..... | 298 | 155 | 3.00 | " |
| Westbank..... | Powers Creek..... | 832 | 803 | 15.30 | " |
| West Bench..... | Okanagan River..... | 164 | 150 | — | " |
| Wilmer Waterworks District..... | Wilmer Creek..... | 241 | 109 | 5.00 | Kootenay Valley |
| Winfield and Okanagan Centre I.D..... | Vernon Creek..... | 1,898 | 1,875 | 16.00 | Okanagan Valley |
| Wynndel Irrigation District..... | Duck Creek..... | 516 | 490 | 3.60 | Kootenay Valley |
| Irrigation Companies— | | | | | |
| Wood Lake Water Company..... | Oyama Creek..... | 832 | 832 | 7.50 | Okanagan Valley |

Section 4.—Statistics of Agriculture*

The collection, compilation and publication of statistics relating to agriculture is a responsibility of the Dominion Bureau of Statistics. Valuable information obtained through the Censuses of Canada and partial-coverage surveys may be obtained in reports issued by the Bureau.†

The Bureau also collects and publishes primary and secondary statistics of agriculture on an annual and monthly basis. The primary statistics relate mainly to the reporting of crop conditions, crop and livestock estimates, values of farm lands, wages of farm labour and prices received by farmers for their products. The secondary statistics relate to the marketing of grain and livestock, dairying, milling and sugar industries and cold storage holdings.

In the collection of annual and monthly statistics the Federal Department of Agriculture and the Provincial Departments of Agriculture, as well as such agencies as the Board of Grain Commissioners and the Canadian Wheat Board, co-operate with the Bureau. Also, many thousands of farmers throughout Canada send in reports voluntarily.

The figures (except for 1956 Census data) contained in this Section do not include estimates for Newfoundland. Agriculture plays a relatively minor part in Newfoundland's economy, commercial production of most agricultural products being quite small.

Subsection 1.—Cash Income from the Sale of Farm Products 1956

Preliminary estimates indicate that, during 1956, Canadian farmers (excluding Newfoundland) realized \$2,662,100,000 from the sale of farm products. This estimate, which includes participation payments on previous years' grain crops, is about 13 p.c. above the \$2,357,100,000 for 1955, but is still below the all-time high of \$2,849,300,000

* Revised in the Agriculture Division, Dominion Bureau of Statistics.

† Copies obtainable from the Dominion Statistician or the Queen's Printer, Ottawa.

established in 1952. Cash income for 1956 was up in all provinces, the increases varying from less than 1 p.c. in Ontario to about 40 p.c. in Saskatchewan. Higher returns from the sale of grains, cattle, hogs, poultry and eggs, together with larger grain participation payments, contributed largely to the increase. Supplementary payments made under the provisions of the Prairie Farm Assistance Act to farmers in Western Canada amounted to about \$5,000,000 in 1956 as against \$33,300,000 in 1955.

Field Crops.—Greatly increased marketings and higher average prices brought cash income from the sale of wheat during 1956 up to approximately \$460,000,000, about 40 p.c. above the \$329,500,000 realized in 1955. This increase of about \$130,000,000 in cash returns represents the largest contribution of any single commodity to the gain in total cash income. Wheat participation payments, totalling nearly \$62,000,000 in 1956, were well above the \$26,000,000 distributed a year earlier. Marketings of oats and barley were also up substantially from the level of 1955 resulting in a cash income of about \$150,000,000 as against nearly \$98,000,000. On the other hand, participation payments on these two grains in 1956 were only slightly above the 1955 level. Estimated income from the sale of flaxseed reached an all-time record in 1956 at close to \$62,000,000. The advance of 52.6 p.c. over the 1955 estimate of \$40,500,000 resulted from both increased marketings and higher prices. Higher returns from the sale of potatoes were also the result of a combination of larger marketings and somewhat higher average prices, but smaller marketings reduced the income from corn.

Livestock and Poultry.—Cash income from the sale of livestock in 1956 was estimated at \$736,600,000 as compared with \$702,900,000 for 1955. The gain was almost entirely contributed by higher returns from the sale of cattle and hogs. Higher marketings of cattle more than offset slightly lower prices and an increase in both marketings and prices provided an income from hogs of approximately \$302,000,000, an increase of 4.3 p.c. over the estimate of \$289,600,000 for 1955. The 1956 returns from calves were only slightly above the 1955 level. Income from the sale of poultry meat reached a new high in 1956 at \$161,200,000, approximately 7 p.c. above the returns of \$150,500,000 for 1955.

Dairy Products.—Cash income from the sale of dairy products rose from \$438,400,000 in 1955 to an all-time high of \$445,900,000 in 1956. Somewhat larger quantities of these products were marketed at slightly higher prices.

Eggs.—Farm cash returns from the sale of eggs at \$143,800,000 in 1956 were 8.5 p.c. above the \$132,600,000 realized in 1955. Almost all of the increase was the result of higher marketings since average prices were only fractionally above the level of the previous year.

6.—Cash Income from the Sale of Farm Products by Source 1954-56

(Exclusive of Newfoundland)

NOTE.—Figures for 1926-48 will be found in DBS *Reference Paper No. 25* (Part II). Figures for 1949 are given in the 1952-53 Year Book, p. 407; for 1950 and 1951 in the 1954 edition, p. 402; and for 1952 and 1953 in the 1956 edition, p. 419.

| Item | 1954 ^r | 1955 | 1956 |
|------------------------------------|-------------------|----------------|----------------|
| | \$'000 | \$'000 | \$'000 |
| Grains, Seeds and Hay | 630,748 | 548,593 | 796,902 |
| Wheat..... | 321,341 | 329,549 | 460,291 |
| Wheat participation payments..... | 97,393 | 25,717 | 61,987 |
| Oats..... | 51,412 | 27,801 | 50,876 |
| Oats participation payments..... | 5,631 | 7,021 | 8,170 |
| Barley..... | 85,569 | 69,748 | 99,236 |
| Barley participation payments..... | 9,834 | 14,438 | 15,217 |
| Rye..... | 11,788 | 6,545 | 14,320 |
| Flax..... | 19,691 | 40,544 | 61,875 |
| Corn..... | 13,513 | 17,043 | 14,790 |
| Clover and grass seed..... | 12,774 | 8,955 | 8,660 |
| Hay and clover..... | 1,802 | 1,232 | 1,480 |

6.—Cash Income from the Sale of Farm Products by Source 1954-56—concluded

| Item | 1954 ^r | 1955 | 1956 |
|---|-------------------|------------------|------------------|
| | \$'000 | \$'000 | \$'000 |
| Vegetables and Other Field Crops | 165,363 | 182,483 | 179,201 |
| Potatoes..... | 29,942 | 35,152 | 41,275 |
| Vegetables..... | 56,560 | 58,619 | 61,671 |
| Sugar beets..... | 11,973 | 12,875 | 12,397 |
| Tobacco..... | 66,888 | 75,837 | 63,858 |
| Livestock and Poultry | 840,636 | 853,433 | 897,829 |
| Cattle and calves..... | 372,848 | 403,294 | 424,688 |
| Sheep and lambs..... | 9,690 | 10,084 | 9,791 |
| Hogs..... | 321,641 | 289,563 | 302,149 |
| Poultry..... | 136,457 | 150,492 | 161,201 |
| Dairy Products | 426,538 | 438,392 | 445,913 |
| Fruits | 48,205 | 40,801 | 34,705 |
| Other Principal Farm Products | 138,441 | 146,218 | 157,115 |
| Eggs..... | 125,342 | 132,581 | 143,805 |
| Wool..... | 2,178 | 2,041 | 2,171 |
| Honey..... | 3,442 | 4,215 | 4,413 |
| Maple products..... | 7,479 | 7,381 | 6,726 |
| Miscellaneous Farm Products | 44,839 | 44,312 | 49,293 |
| Forest Products Sold Off Farms | 83,336 | 86,141 | 87,973 |
| Fur Farming | 14,304 | 16,760 | 13,215 |
| Totals, Cash Income from Farm Products | 2,392,410 | 2,357,133 | 2,662,146 |
| Supplementary payments ¹ | 2,427 | 33,338 | 5,004 |
| Totals, Cash Income | 2,394,837 | 2,390,471 | 2,667,150 |

¹Includes payments made under the Prairie Farm Assistance Act; other government subsidies have been included in cash income from individual commodities.

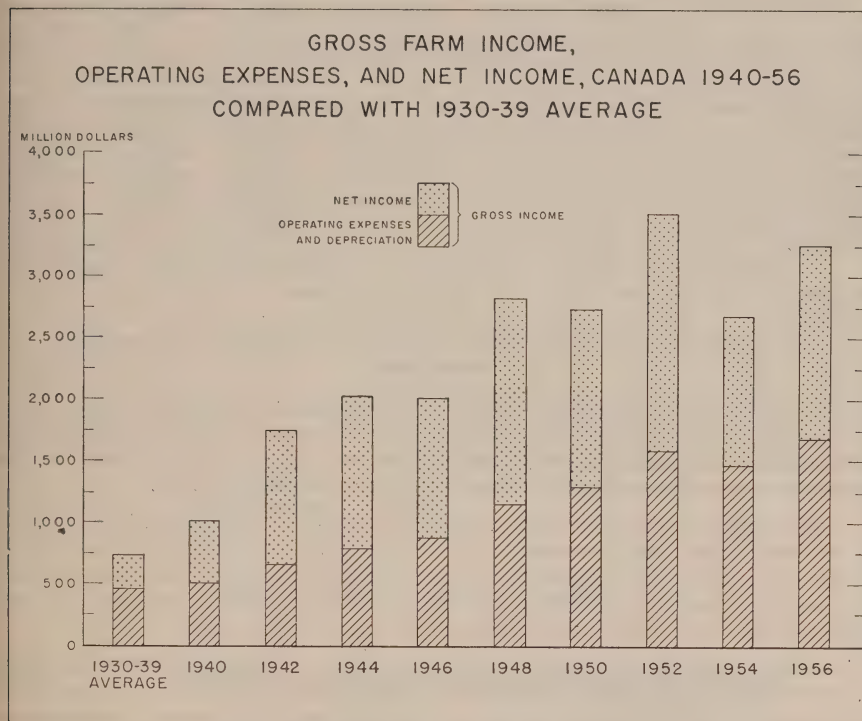
7.—Cash Income from the Sale of Farm Products by Province 1954-56

NOTE.—Figures for 1926-45 will be found in DBS *Reference Paper No. 25* (Part II). Figures for 1946-49 are given in the 1952-53 Year Book, p. 408; for 1950 and 1951 in the 1954 edition, p. 403; and for 1952 and 1953 in the 1956 edition, p. 420.

| Province | 1954 ^r | 1955 | 1956 |
|---------------------------|-------------------|------------------|------------------|
| | \$'000 | \$'000 | \$'000 |
| Newfoundland..... | 24,374 | 25,931 | 26,428 |
| Prince Edward Island..... | 44,296 | 42,745 | 44,410 |
| Nova Scotia..... | 48,835 | 47,797 | 51,370 |
| New Brunswick..... | 406,960 | 424,193 | 440,967 |
| Quebec..... | 714,375 | 749,104 | 749,293 |
| Ontario..... | 187,890 | 173,542 | 209,209 |
| Manitoba..... | 472,424 | 424,650 | 597,622 |
| Saskatchewan..... | 386,245 | 365,130 | 432,963 |
| Alberta..... | 107,011 | 104,041 | 109,884 |
| British Columbia..... | | | |
| Totals | 2,392,410 | 2,357,133 | 2,662,146 |

Net Income of Farm Operators from Farming Operations 1956.—Net income of Canadian farmers from farming operations (excluding Newfoundland) estimated at \$1,573,000,000 in 1956, continued upward from the postwar low of \$1,161,000,000 established in 1954. The current estimate is 10.5 p.c. above the \$1,423,200,000 for 1955 and also above the average for the postwar years (1946-55) of \$1,547,400,000. The all-time high net farm income estimate was recorded in 1951 and amounted to \$2,154,500,000.

Gains in cash income and value of income in kind were offset to some extent by higher farm operating expenses and depreciation charges and a lower total value of inventory changes. All provinces except Nova Scotia, Ontario and British Columbia recorded increases in 1956 over 1955.



8.—Net Income of Farm Operators from Farming Operations 1954-56

(Exclusive of Newfoundland)

| Item | 1954 ^r | 1955 | 1956 |
|--|-------------------|------------------|------------------|
| | \$'000 | \$'000 | \$'000 |
| 1. Cash income from sale of farm products..... | 2,392,410 | 2,357,133 | 2,662,146 |
| 2. Income in kind..... | 393,194 | 403,306 | 411,551 |
| 3. Value of changes in inventory..... | -115,409 | 210,820 | 169,747 |
| 4. Gross income (Items 1+2+3)..... | 2,670,195 | 2,971,259 | 3,243,444 |
| 5. Operating expenses..... | 1,265,945 | 1,332,461 | 1,422,840 |
| 6. Depreciation charges..... | 245,692 | 248,930 | 252,575 |
| 7. Total operating and depreciation (Items 5+6)..... | 1,511,637 | 1,581,391 | 1,675,415 |
| 8. Net income, excluding supplementary payments (Items 4-7)..... | 1,158,558 | 1,389,868 | 1,568,029 |
| 9. Supplementary payments..... | 2,427 | 33,338 | 5,004 |
| Net Income of Farm Operators from Farming Operations (Items 8 + 9)¹..... | 1,160,985 | 1,423,206 | 1,573,033 |

¹ Includes estimated rental value of farm homes and supplementary payments made under the provisions of the Prairie Farm Assistance Act.

9.—Net Income of Farm Operators from Farming Operations by Province 1954-56

NOTE.—Net income includes estimated rental value of farm homes and supplementary payments made under the provisions of the Prairie Farm Assistance Act.

| Province | 1954* | 1955 | 1956 |
|---------------------------|------------------|------------------|------------------|
| | \$'000 | \$'000 | \$'000 |
| Newfoundland..... | 13,058 | 13,931 | 14,936 |
| Prince Edward Island..... | 20,697 | 17,907 | 17,765 |
| Nova Scotia..... | 29,990 | 26,854 | 30,313 |
| New Brunswick..... | 268,747 | 281,989 | 285,568 |
| Quebec..... | 387,350 | 422,072 | 405,561 |
| Ontario..... | 73,669 | 97,149 | 132,457 |
| Manitoba..... | 138,708 | 315,772 | 390,742 |
| Saskatchewan..... | 192,695 | 215,375 | 266,812 |
| Alberta..... | 36,071 | 32,157 | 28,879 |
| British Columbia..... | | | |
| Totals..... | 1,160,985 | 1,423,206 | 1,573,033 |

Subsection 2.—Index Numbers of Physical Volume of Agricultural Production

A preliminary estimate places the index of physical volume of agricultural production for 1956 at 165.3 (1935-39=100), 10.3 p.c. above the estimate of 149.9 for 1955. The current estimate is only fractionally below the all-time high of 166.0 established in 1952 and replaces the previous second-place estimate of 164.2 recorded in 1942.

The increase in total agricultural production in 1956 over 1955 is largely attributable to the larger grain crops harvested in the Prairie Provinces. Contributing also to the increase were larger outputs of livestock, dairy products, poultry, eggs, sugar beets, tobacco and maple products; the gains in production of livestock and dairy products were very small and there were lower outturns of potatoes, fruits and vegetables.

Increased agricultural production was recorded for all provinces except the Maritimes and British Columbia. On a percentage basis the provincial gains ranged from slightly over 2 p.c. in Quebec and Ontario to nearly 33 p.c. in Saskatchewan. Reductions in output varied from nearly 5 p.c. in British Columbia to more than 6 p.c. in the Maritimes.

10.—Index Numbers of Physical Volume of Agricultural Production by Province 1947-56

(1935-39=100. Exclusive of Newfoundland)

NOTE.—For a description of this index, methods and coverage, see *DBS Quarterly Bulletin of Agricultural Statistics* for April-June, 1952. Figures for 1935-44 are given in the 1950 Year Book, p. 420, and for 1945 and 1946 in the 1956 edition, p. 423.

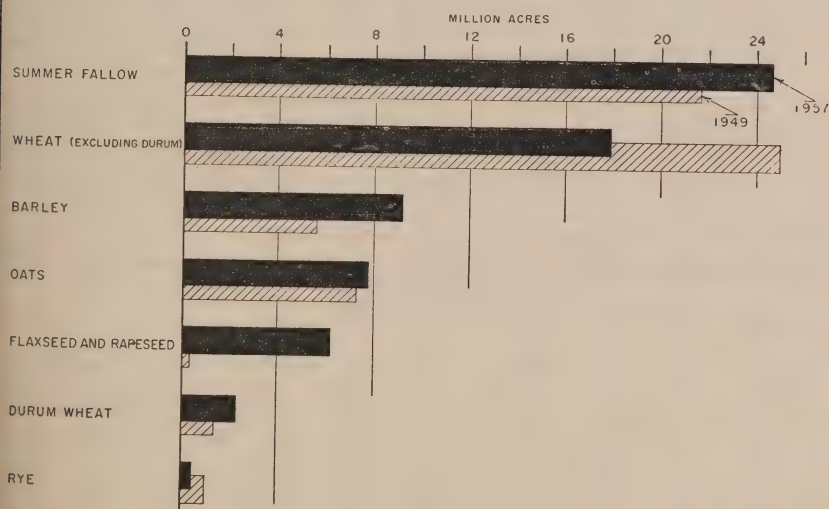
| Year | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Total |
|-----------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1947..... | 128.9 | 86.7 | 119.0 | 102.6 | 107.7 | 122.1 | 128.2 | 115.8 | 146.4 | 116.0 |
| 1948..... | 133.3 | 91.8 | 124.3 | 121.6 | 119.0 | 143.8 | 131.8 | 118.5 | 143.7 | 125.1 |
| 1949..... | 158.8 | 105.1 | 145.8 | 126.4 | 124.9 | 125.7 | 128.1 | 98.1 | 148.7 | 122.3 |
| 1950..... | 148.2 | 105.2 | 140.2 | 136.3 | 128.1 | 137.8 | 168.3 | 121.8 | 134.2 | 137.8 |
| 1951..... | 119.5 | 87.7 | 110.4 | 139.0 | 128.6 | 146.4 | 218.1 | 157.1 | 126.9 | 154.7 |
| 1952..... | 142.3 | 80.6 | 109.4 | 124.7 | 119.6 | 162.5 | 267.4 | 174.8 | 133.3 | 166.0 |
| 1953..... | 142.8 | 80.6 | 121.6 | 132.9 | 129.5 | 132.1 | 230.2 | 157.5 | 137.6 | 156.2 |
| 1954..... | 150.3 | 88.7 | 114.1 | 129.8 | 128.6 | 102.1 | 101.5 | 116.0 | 131.4 | 117.3 |
| 1955..... | 150.0 | 93.3 | 135.9 | 143.8 | 128.6 | 127.3 | 206.7 | 144.7 | 131.2 | 149.9 |
| 1956..... | 140.2 | 87.1 | 127.1 | 147.0 | 132.0 | 169.1 | 238.0 | 166.7 | 125.2 | 165.3 |

Subsection 3.—Field Crops

Following a sharp reduction in crop output in 1954 when rust took a heavy toll, Canadian farmers experienced two very satisfactory seasons in 1955 and 1956 from the production point of view. Despite a somewhat late seeding season in many parts of Canada, weather conditions during the summer and autumn of 1955 were generally favourable to good growth and development of crops. Average yields per acre for the 21 crops for which estimates are made either equalled or exceeded those of 1954 except for buckwheat, dry peas, rapeseed and field roots. New production records were set in corn for grain, soybeans and mustard seed. In 1956 the seeding season was again delayed in many parts of Canada but, as in the previous year, weather conditions during the summer and autumn were generally favourable and yields of most crops were well above average. Early autumn frosts and excessive rains in the Prairie Provinces lowered the quality of the wheat crop somewhat and in Eastern Canada excessive rains during the haying season caused harvesting difficulties. Average yields per acre for the 21 crops for which estimates are made exceeded those of 1955 except for winter wheat, fall and spring rye, corn for grain, soybeans, sunflower seed, hay, fodder corn and sugar beets. New production records were set in 1956 for flaxseed, rapeseed, mustard seed and mixed grains.

Marketings of the five major grains (wheat, oats, barley, rye and flaxseed) totalled 567,029,000 bu. in 1955-56 and 584,911,000 bu. in the 1956-57 crop year. These amounts were well below the record 1952-53 year when marketings reached 844,900,000 bu. but compared favourably with the ten-year (1947-48-1956-57) average of 577,957,000 bu. Combined exports of the same grains (including wheat flour, rye flour, rolled oats and oatmeal, malt, and pot and pearl barley) amounted to 406,528,000 bu. in 1955-56 and 390,003,000 bu. in 1956-57. Exports during the period were somewhat above the ten-year average of 381,753,000 bu. However, exports and domestic disappearance during the period did not increase in proportion to the increase in crop production and as a result stocks of grain in Canada continued to build up.

COMPARISON OF LAND USE BY SPECIFIED CROPS,
PRAIRIE PROVINCES, 1949 AND 1957



The gross value of production of principal field crops on Canadian farms in 1955, based on average prices received by farmers throughout the 1955-56 crop year, was estimated at \$1,807,114,000. On the same basis, in 1956 the value had decreased slightly to \$1,757,332,000. These amounts were well below those established in the record-breaking year of 1952 when the total reached \$2,306,397,000 and the 1951 total of \$2,120,301,000, but compared quite favourably with other postwar years. Estimates of the value of 1957 crops, based on average prices received by farmers during the crop year ending July 31, 1958, will be published in one of the regularly scheduled DBS crop reports and in the *Quarterly Bulletin of Agricultural Statistics*.

11.—Acreages, Yields and Prices of Principal Field Crops 1952-56 and Five-Year Average 1945-49

(Exclusive of Newfoundland)

| Crop and Year | Area | Yield per Acre | Pro-duction | Average Price | Total Value ¹ | Crop and Year | Area | Yield per Acre | Pro-duction | Average Price | Total Value ¹ |
|----------------|------------|----------------|----------------------|---------------|--------------------------|----------------------|------------|----------------|-------------|---------------|--------------------------|
| | '000 acres | bu. | '000 bu. | \$ per bu. | \$'000 | | '000 acres | bu. | '000 bu. | \$ per bu. | \$'000 |
| Wheat— | | | | | | Mixed Grains— | | | | | |
| Av. 1945-49... | 24,558 | 14.8 | 362,774 ^r | 1.62 | 587,412 ^r | Av. 1945-49... | 1,226 | 35.9 | 44,046 | 0.84 | 36,988 |
| 1952..... | 26,164 | 26.8 | 701,944 | 1.59 | 1,112,812 | 1952..... | 1,570 | 40.3 | 63,217 | 0.97 | 61,015 |
| 1953..... | 26,384 | 24.0 | 634,007 | 1.33 | 844,447 | 1953..... | 1,445 | 43.0 | 62,188 | 0.84 | 52,409 |
| 1954..... | 25,540 | 13.0 | 331,961 | 1.24 | 411,743 | 1954..... | 1,633 | 37.6 | 61,454 | 0.83 | 51,078 |
| 1955..... | 22,660 | 22.9 | 519,188 | 1.37 | 709,475 | 1955..... | 1,705 | 38.7 | 65,990 | 0.84 | 55,172 |
| 1956..... | 22,781 | 25.2 | 573,062 | 1.07 | 614,818 | 1956..... | 1,560 | 42.7 | 66,608 | 0.84 | 56,001 |
| Oats— | | | | | | Flaxseed— | | | | | |
| Av. 1945-49... | 11,513 | 28.4 | 326,437 | 0.67 | 219,370 | Av. 1945-49... | 1,164 | 8.2 | 9,502 | 3.91 | 37,188 |
| 1952..... | 11,062 | 42.2 | 466,793 | 0.66 | 309,467 | 1952..... | 1,130 | 10.9 | 12,261 | 3.16 | 38,749 |
| 1953..... | 9,830 | 41.4 | 406,951 | 0.62 | 253,904 | 1953..... | 972 | 10.2 | 9,912 | 2.44 | 24,213 |
| 1954..... | 10,161 | 30.2 | 306,793 | 0.67 | 206,432 | 1954..... | 1,206 | 9.3 | 11,238 | 2.54 | 28,561 |
| 1955..... | 11,178 | 36.5 | 407,783 | 0.67 | 272,218 | 1955..... | 1,838 | 10.7 | 19,748 | 2.77 | 54,773 |
| 1956..... | 11,707 | 44.8 | 524,445 | 0.57 | 300,189 | 1956..... | 3,041 | 11.3 | 34,463 | 2.56 | 88,277 |
| Barley— | | | | | | Potatoes— | | | | | |
| Av. 1945-49... | 6,569 | 21.5 | 141,171 | 0.95 | 133,431 | Av. 1945-49... | 417 | 159.0 | 66,173 | 1.10 | 72,522 |
| 1952..... | 8,477 | 34.4 | 291,389 | 1.06 | 307,763 | 1952..... | 297 | 202.4 | 60,071 | 1.68 | 100,784 |
| 1953..... | 8,911 | 29.4 | 262,065 | 0.86 | 224,580 | 1953..... | 323 | 209.1 | 67,545 | 0.78 | 52,977 |
| 1954..... | 7,856 | 22.3 | 175,509 | 0.89 | 155,577 | 1954..... | 300 | 172.8 | 51,783 | 1.45 | 75,028 |
| 1955..... | 9,932 | 25.4 | 252,385 | 0.87 | 220,521 | 1955..... | 308 | 214.5 | 66,127 | 1.06 | 70,024 |
| 1956..... | 8,390 | 32.1 | 269,065 | 0.73 | 195,551 | 1956..... | 312 | 220.6 | 68,932 | 1.13 | 77,914 |
| Rye— | | | | | | Tame Hay— | | | | | |
| Av. 1945-49... | 1,192 | 11.1 | 13,182 | 1.85 | 24,362 | Av. 1945-49... | 10,535 | 1.59 | 16,729 | 14.99 | 250,847 |
| 1952..... | 1,274 | 19.5 | 24,833 | 1.38 | 34,267 | 1952..... | 10,679 | 1.79 | 19,083 | 14.24 | 271,687 |
| 1953..... | 1,494 | 19.3 | 28,775 | 0.82 | 23,484 | 1953..... | 10,702 | 1.84 | 19,650 | 13.71 | 269,489 |
| 1954..... | 850 | 16.7 | 14,176 | 0.91 | 12,908 | 1954..... | 10,802 | 1.81 | 19,549 | 13.99 | 273,436 |
| 1955..... | 780 | 18.9 | 14,753 | 0.92 | 13,506 | 1955..... | 11,055 | 1.86 | 20,614 | 15.03 | 309,793 |
| 1956..... | 547 | 15.7 | 8,584 | 1.00 | 8,560 | 1956..... | 10,922 | 1.80 | 19,655 | 15.40 | 302,698 |

¹ Gross value of farm production; does not represent cash income from sales.

12.—Acreages, Production and Values of Principal Field Crops by Province 1955 and 1956 and Five-Year Average 1945-49

(Exclusive of Newfoundland)

| Province | Area | | | Total Production | | | Gross Farm Value ¹ | |
|-------------------------|------------------------------|---------------|---------------|------------------------------|----------------|----------------|-------------------------------|----------------|
| | Average 1945-49 ^r | 1955 | 1956 | Average 1945-49 ^r | 1955 | 1956 | Average 1945-49 ^r | 1956 |
| | '000 ac. | '000 ac. | '000 ac. | '000 bu. | '000 bu. | '000 bu. | \$'000 | \$'000 |
| Wheat..... | 24,558 | 22,660 | 22,781 | 362,774 | 519,188 | 573,062 | 587,412 | 614,818 |
| Prince Edward Island... | 2 | 4 | 3 | 54 | 87 | 84 | 84 | 142 |
| Nova Scotia..... | 1 | 1 | 1 | 23 | 24 | 20 | 34 | 35 |
| New Brunswick..... | 2 | 2 | 2 | 46 | 40 | 61 | 77 | 102 |
| Quebec..... | 12 | 14 | 15 | 206 | 283 | 365 | 313 | 606 |

For footnote, see end of table, p. 429.

12.—Acreages, Production and Values of Principal Field Crops by Province 1955 and 1956 and Five-Year Average 1945-49—continued

| Province | Area | | | Total Production | | | Gross Farm Value ¹ | |
|---------------------------|------------------------------|---------------|---------------|------------------------------|----------------|----------------|-------------------------------|----------------|
| | Average 1945-49 ² | 1955 | 1956 | Average 1945-49 ² | 1955 | 1956 | Average 1945-49 ² | 1956 |
| | '000 ac. | '000 ac. | '000 ac. | '000 bu. | '000 bu. | '000 bu. | \$'000 | \$'000 |
| Wheat—concl. | | | | | | | | |
| Ontario | | | | | | | | |
| (a) Winter wheat..... | 621 | 582 | 625 | 18,100 | 19,963 | 20,000 | 28,358 | 28,800 |
| (b) Spring wheat..... | 40 | 27 | 17 | 810 | 537 | 357 | 1,287 | 550 |
| Manitoba..... | 2,420 | 2,075 | 2,199 | 48,000 | 42,000 | 56,000 | 79,827 | 62,720 |
| Saskatchewan..... | 14,433 | 14,100 | 14,569 | 185,000 | 320,000 | 355,000 | 301,085 | 376,300 |
| Alberta..... | 6,915 | 5,789 | 5,296 | 108,000 | 135,000 | 140,000 | 171,983 | 144,200 |
| British Columbia..... | 106 | 66 | 54 | 2,615 | 1,254 | 1,175 | 4,365 | 1,363 |
| Oats | 11,513 | 11,178 | 11,707 | 326,437 | 407,783 | 524,445 | 219,370 | 300,189 |
| Prince Edward Island..... | 110 | 95 | 98 | 4,073 | 3,325 | 4,508 | 3,113 | 3,426 |
| Nova Scotia..... | 64 | 51 | 43 | 2,221 | 2,040 | 2,035 | 1,891 | 1,994 |
| New Brunswick..... | 178 | 137 | 130 | 6,136 | 4,110 | 6,500 | 4,799 | 5,200 |
| Quebec..... | 1,377 | 1,316 | 1,258 | 32,961 | 36,848 | 46,294 | 26,716 | 40,739 |
| Ontario..... | 1,503 | 1,708 | 1,427 | 56,770 | 67,808 | 60,648 | 42,078 | 47,305 |
| Manitoba..... | 1,460 | 1,485 | 2,053 | 49,000 | 50,000 | 92,000 | 31,402 | 47,840 |
| Saskatchewan..... | 4,084 | 3,654 | 3,670 | 96,000 | 135,000 | 165,000 | 60,134 | 80,850 |
| Alberta..... | 2,645 | 2,649 | 2,935 | 75,000 | 105,000 | 143,000 | 46,148 | 70,070 |
| British Columbia..... | 93 | 83 | 92 | 4,535 | 3,652 | 4,460 | 3,088 | 2,765 |
| Barley | 6,569 | 9,932 | 8,390 | 141,171 | 252,385 | 269,065 | 133,431 | 195,551 |
| Prince Edward Island..... | 6 | 3 | 1 | 169 | 72 | 32 | 172 | 34 |
| Nova Scotia..... | 6 | 2 | 2 | 153 | 71 | 56 | 172 | 66 |
| New Brunswick..... | 11 | 7 | 4 | 312 | 127 | 156 | 346 | 165 |
| Quebec..... | 84 | 62 | 32 | 1,869 | 1,515 | 961 | 2,006 | 1,086 |
| Ontario..... | 234 | 144 | 105 | 7,477 | 4,752 | 3,713 | 7,148 | 3,936 |
| Manitoba..... | 1,766 | 2,090 | 1,548 | 42,000 | 40,000 | 42,000 | 40,907 | 32,760 |
| Saskatchewan..... | 2,354 | 3,846 | 3,027 | 43,000 | 104,000 | 99,000 | 39,813 | 71,280 |
| Alberta..... | 2,088 | 3,702 | 3,606 | 45,000 | 100,000 | 121,000 | 42,121 | 84,700 |
| British Columbia..... | 21 | 77 | 66 | 731 | 1,848 | 2,147 | 746 | 1,524 |
| Fall Rye | 863 | 569 | 368 | 9,882 | 11,343 | 5,834 | 18,272 | 5,987 |
| Quebec..... | 4 | 5 | 8 | 59 | 84 | 181 | 77 | 223 |
| Ontario..... | 86 | 65 | 86 | 1,771 | 1,255 | 1,865 | 2,900 | 2,201 |
| Manitoba..... | 40 | 79 | 61 | 671 | 1,640 | 1,000 | 1,140 | 970 |
| Saskatchewan..... | 531 | 284 | 157 | 4,323 | 5,500 | 1,950 | 8,394 | 1,833 |
| Alberta..... | 201 | 133 | 55 | 3,029 | 2,800 | 800 | 5,710 | 728 |
| British Columbia..... | 2 | 3 | 2 | 29 | 64 | 38 | 50 | 32 |
| Spring Rye | 329 | 211 | 179 | 3,299 | 3,410 | 2,750 | 6,090 | 2,573 |
| Manitoba..... | 10 | 4 | 7 | 142 | 60 | 100 | 255 | 97 |
| Saskatchewan..... | 192 | 166 | 143 | 1,917 | 2,700 | 2,150 | 3,522 | 2,021 |
| Alberta..... | 127 | 41 | 29 | 1,240 | 650 | 500 | 2,314 | 455 |
| All Rye | 1,192 | 780 | 547 | 13,182 | 14,753 | 8,584 | 24,362 | 8,560 |
| Quebec..... | 4 | 5 | 8 | 59 | 84 | 181 | 77 | 223 |
| Ontario..... | 86 | 65 | 86 | 1,771 | 1,255 | 1,865 | 2,900 | 2,201 |
| Manitoba..... | 50 | 83 | 68 | 813 | 1,700 | 1,100 | 1,395 | 1,067 |
| Saskatchewan..... | 723 | 450 | 300 | 6,240 | 8,200 | 4,100 | 11,916 | 3,854 |
| Alberta..... | 328 | 174 | 84 | 4,269 | 3,450 | 1,300 | 8,024 | 1,183 |
| British Columbia..... | 2 | 3 | 2 | 29 | 64 | 38 | 50 | 32 |
| Peas | 83 | 49 | 88 | 1,375 | 748 | 1,817 | 3,811 | 3,618 |
| Quebec..... | 7 | 3 | 3 | 91 | 52 | 56 | 339 | 224 |
| Ontario..... | 26 | 7 | 8 | 468 | 108 | 127 | 1,337 | 318 |
| Manitoba..... | 21 | 20 | 56 | 366 | 200 | 1,168 | 916 | 1,752 |
| Saskatchewan..... | 7 | 1 | 3 | 109 | 20 | 72 | 294 | 162 |
| Alberta..... | 16 | 10 | 12 | 215 | 242 | 252 | 598 | 693 |
| British Columbia..... | 6 | 7 | 7 | 126 | 126 | 142 | 326 | 469 |
| Beans | 82 | 81 | 66 | 1,356 | 1,286 | 1,146 | 5,024 | 4,383 |
| Quebec..... | 2 | 1 | 2 | 30 | 14 | 25 | 124 | 112 |
| Ontario..... | 80 | 80 | 64 | 1,326 | 1,272 | 1,121 | 4,900 | 4,271 |
| Soybeans | 73 | 214 | 243 | 1,492 | 5,650 | 5,301 | 3,492 | 11,376 |
| Ontario..... | 73 | 214 | 240 | 1,492 | 5,650 | 5,269 | 3,492 | 11,328 |
| Manitoba..... | — | — | 3 | — | — | 32 | — | 48 |

For footnote, see end of table, p. 429.

12.—Acreages, Production and Values of Principal Field Crops by Province 1955 and 1956 and Five-Year Average 1945-49—continued

| Province | Area | | | Total Production | | | Gross Farm Value ¹ | |
|-----------------------------|------------------------------|---------------|---------------|------------------------------|---------------|----------------|-------------------------------|----------------|
| | Average 1945-49 ^r | 1955 | 1956 | Average 1945-49 ^r | 1955 | 1956 | Average 1945-49 ^r | 1956 |
| | '000 ac. | '000 ac. | '000 ac. | '000 bu. | '000 bu. | '000 bu. | \$'000 | \$'000 |
| Buckwheat | 179 | 127 | 168 | 3,642 | 2,334 | 3,177 | 3,896 | 3,665 |
| New Brunswick..... | 11 | 7 | 6 | 267 | 173 | 162 | 325 | 202 |
| Quebec..... | 56 | 44 | 47 | 1,116 | 931 | 1,209 | 1,279 | 1,560 |
| Ontario..... | 109 | 41 | 53 | 2,212 | 845 | 1,188 | 2,229 | 1,378 |
| Manitoba..... | 3 | 35 | 62 | 48 | 385 | 618 | 62 | 525 |
| Mixed Grains | 1,226 | 1,705 | 1,560 | 44,046 | 65,990 | 66,608 | 36,988 | 56,001 |
| Prince Edward Island... | 48 | 79 | 57 | 1,878 | 2,765 | 2,755 | 1,590 | 2,342 |
| Nova Scotia..... | 4 | 10 | 10 | 139 | 363 | 466 | 135 | 489 |
| New Brunswick..... | 3 | 7 | 5 | 97 | 192 | 254 | 79 | 241 |
| Quebec..... | 189 | 199 | 194 | 4,921 | 6,010 | 7,256 | 4,852 | 8,127 |
| Ontario..... | 916 | 1,120 | 984 | 35,438 | 47,600 | 44,292 | 29,194 | 37,205 |
| Manitoba..... | 18 | 51 | 67 | 496 | 1,326 | 2,342 | 364 | 1,499 |
| Saskatchewan..... | 13 | 60 | 49 | 255 | 1,800 | 1,680 | 192 | 1,092 |
| Alberta..... | 33 | 176 | 189 | 736 | 5,800 | 7,333 | 512 | 4,840 |
| British Columbia..... | 2 | 3 | 5 | 86 | 134 | 230 | 70 | 166 |
| Flaxseed | 1,164 | 1,838 | 3,041 | 9,502 | 19,748 | 34,463 | 37,188 | 88,277 |
| Ontario..... | 39 | 16 | 17 | 463 | 194 | 227 | 1,879 | 638 |
| Manitoba..... | 449 | 531 | 789 | 4,267 | 4,600 | 8,000 | 16,732 | 20,720 |
| Saskatchewan..... | 526 | 1,030 | 1,710 | 3,360 | 11,850 | 19,000 | 12,872 | 48,830 |
| Alberta..... | 146 | 248 | 511 | 1,373 | 3,000 | 7,100 | 5,555 | 17,750 |
| British Columbia..... | 4 | 13 | 14 | 39 | 104 | 136 | 149 | 339 |
| | | | | '000 lb. | '000 lb. | '000 lb. | | |
| Sunflower Seed | 29 | 18 | 33 | 16,312 | 14,400 | 16,500 | 952 | 693 |
| Manitoba..... | 29 | 18 | 33 | 16,312 | 14,400 | 16,500 | 952 | 693 |
| Rapeseed | 40 | 136 | 352 | 29,663 | 77,395 | 300,468 | 1,746 | 10,541 |
| Manitoba..... | — | 5 | 29 | — | 3,380 | 24,153 | — | 870 |
| Saskatchewan..... | 40 | 123 | 297 | 29,663 | 69,495 | 252,450 | 1,746 | 8,836 |
| Alberta..... | — | 8 | 26 | — | 4,520 | 23,865 | — | 835 |
| | | | | '000 bu. | '000 bu. | '000 bu. | | |
| Shelled Corn | 244 | 507 | 509 | 11,038 | 31,510 | 27,814 | 14,056 | 33,377 |
| Ontario..... | 231 | 500 | 502 | 10,734 | 31,300 | 27,636 | 13,726 | 33,163 |
| Manitoba..... | 13 | 7 | 7 | 304 | 210 | 178 | 330 | 214 |
| Potatoes | 417 | 308 | 312 | 66,173 | 66,127 | 68,932 | 72,522 | 77,914 |
| Prince Edward Island... | 46 | 43 | 42 | 9,988 | 11,825 | 11,688 | 7,746 | 10,378 |
| Nova Scotia..... | 16 | 12 | 10 | 2,945 | 2,952 | 2,397 | 3,436 | 2,948 |
| New Brunswick..... | 61 | 47 | 46 | 14,550 | 15,510 | 15,246 | 13,241 | 12,899 |
| Quebec..... | 118 | 92 | 99 | 14,927 | 16,210 | 16,881 | 17,485 | 21,271 |
| Ontario..... | 92 | 58 | 54 | 13,339 | 10,730 | 10,998 | 16,877 | 15,178 |
| Manitoba..... | 21 | 19 | 16 | 2,342 | 2,565 | 3,052 | 2,371 | 2,746 |
| Saskatchewan..... | 24 | 12 | 15 | 2,050 | 1,300 | 2,025 | 2,570 | 2,770 |
| Alberta..... | 23 | 16 | 20 | 2,799 | 2,450 | 3,705 | 3,706 | 4,802 |
| British Columbia..... | 16 | 9 | 10 | 3,233 | 2,585 | 2,940 | 5,089 | 4,922 |
| | | | | '000 tons | '000 tons | '000 tons | | |
| Field Roots | 72 | 42 | 40 | 725² | 439 | 425 | 12,845 | 9,033 |
| Prince Edward Island... | 8 | 6 | 7 | 119 | 92 | 85 | 1,906 | 1,377 |
| Nova Scotia..... | 6 | 4 | 4 | 72 | 62 | 56 | 1,732 | 1,534 |
| New Brunswick..... | 7 | 3 | 3 | 66 | 38 | 30 | 1,086 | 858 |
| Quebec..... | 14 | 11 | 10 | 114 | 78 | 83 | 2,712 | 2,357 |
| Ontario..... | 36 | 18 | 16 | 343 | 169 | 171 | 5,409 | 2,907 |
| Tame Hay | 10,535 | 11,055 | 10,922 | 16,729 | 20,614 | 19,655 | 250,847 | 302,698 |
| Prince Edward Island... | 221 | 205 | 205 | 333 | 410 | 422 | 8,620 | 5,064 |
| Nova Scotia..... | 403 | 357 | 314 | 699 | 821 | 691 | 11,773 | 12,438 |

For footnotes, see end of table, p. 429.

12.—Acreages, Production and Values of Principal Field Crops by Province 1955 and 1956 and Five-Year Average 1945-49—concluded

| Province | Area | | | Total Production | | | Gross Farm Value ¹ | |
|-------------------------|------------------------------|------------|------------|------------------------------|--------------|--------------|-------------------------------|---------------|
| | Average 1945-49 ² | 1955 | 1956 | Average 1945-49 ² | 1955 | 1956 | Average 1945-49 ² | 1956 |
| | '000 ac. | '000 ac. | '000 ac. | '000 tons | '000 tons | '000 tons | \$'000 | \$'000 |
| Tame Hay—concl. | | | | | | | | |
| New Brunswick..... | 534 | 458 | 399 | 748 | 916 | 758 | 11,849 | 9,854 |
| Quebec..... | 3,959 | 3,725 | 3,487 | 5,526 | 6,854 | 6,102 | 87,681 | 94,581 |
| Ontario..... | 3,371 | 3,407 | 3,290 | 6,128 | 6,235 | 6,416 | 86,292 | 97,844 |
| Manitoba..... | 324 | 524 | 634 | 556 | 1,048 | 1,268 | 6,021 | 12,680 |
| Saskatchewan..... | 481 | 632 | 647 | 681 | 1,150 | 1,068 | 9,029 | 14,685 |
| Alberta..... | 940 | 1,422 | 1,614 | 1,370 | 2,400 | 2,276 | 19,053 | 35,278 |
| British Columbia..... | 302 | 325 | 332 | 688 | 780 | 654 | 14,530 | 20,274 |
| Fodder Corn..... | 404 | 366 | 394 | 3,509 | 3,423 | 3,450 | 17,951 | 16,519 |
| Quebec..... | 71 | 69 | 79 | 605 | 727 | 631 | 4,172 | 4,291 |
| Ontario..... | 308 | 274 | 290 | 2,790 | 2,543 | 2,653 | 12,910 | 11,010 |
| Manitoba..... | 16 | 20 | 19 | 58 | 121 | 98 | 422 | 588 |
| Saskatchewan..... | 5 | 1 | 2 | 14 | 3 | 6 | 137 | 72 |
| British Columbia..... | 4 | 2 | 4 | 42 | 29 | 62 | 309 | 558 |
| Sugar Beets..... | 66 | 82 | 79 | 690 | 981 | 893 | 9,080 | 15,050 |
| Quebec..... | 3 | 6 | 6 | 27 | 77 | 55 | 344 | 823 |
| Ontario..... | 22 | 19 | 14 | 219 | 268 | 145 | 2,950 | 2,205 |
| Manitoba..... | 11 | 21 | 23 | 90 | 206 | 229 | 1,113 | 3,435 |
| Alberta..... | 30 | 36 | 36 | 354 | 430 | 464 | 4,672 | 8,587 |

¹ Total values for eight principal field crops are contained in Table 11; the total values for the remaining field crops and the values by province may be obtained from the *Quarterly Bulletin of Agricultural Statistics*. ² Includes British Columbia.

13.—Acreages and Production of Grain in the Prairie Provinces 1952-56

NOTE.—Figures for years before 1952 will be found in the corresponding table of previous editions of the Year Book.

| Grain | Acreages | | | | | Production | | | | |
|---------------|------------|------------|---------------------|---------------------|------------|------------|----------------------|----------|----------|----------|
| | 1952 | 1953 | 1954 | 1955 | 1956 | 1952 | 1953 | 1954 | 1955 | 1956 |
| | '000 acres | '000 acres | '000 acres | '000 acres | '000 acres | '000 bu. | '000 bu. | '000 bu. | '000 bu. | '000 bu. |
| Wheat..... | 25,372 | 25,517 | 24,707 ^r | 21,964 ^r | 22,064 | 678,000 | 604,000 ^r | 305,000 | 497,000 | 551,000 |
| Oats..... | 7,560 | 6,490 | 6,715 | 7,788 | 8,658 | 346,000 | 276,000 | 196,000 | 290,000 | 400,000 |
| Barley..... | 8,145 | 8,599 | 7,568 | 9,638 | 8,181 | 281,000 | 251,000 | 167,000 | 244,000 | 262,000 |
| Rye..... | 1,193 | 1,411 | 753 | 707 | 452 | 23,200 | 26,850 | 12,179 | 13,350 | 6,500 |
| Flaxseed..... | 1,047 | 926 | 1,177 | 1,809 | 3,010 | 11,300 | 9,300 | 10,950 | 19,450 | 34,100 |

Stocks of Grain in Canada.—Table 14 shows the stocks of Canadian grain on hand in Canada and in the United States on July 31 for the years 1951-56, with averages for the five-year periods 1935-39, 1940-44 and 1945-49. Stocks in Canada are separated into those in commercial positions and those on farms. Stocks on farms and in country elevators in the Prairie Provinces are given separately.

14.—Carryover of Canadian Grain as at July 31, 1952-56 and Five-Year Averages 1935-49

NOTE.—Figures for individual years before 1952 will be found in the corresponding table of previous editions of the Year Book.

| As at July 31— | Total in Canada and United States | Total in Canada | In Commercial Storage in Canada | On Farms in Canada | Prairie Provinces | |
|------------------|-----------------------------------|--------------------------|---------------------------------|--------------------------|--------------------------|--------------------------|
| | | | | | On Farms | In Country Elevators |
| | bu. | bu. | bu. | bu. | bu. | bu. |
| Wheat— | | | | | | |
| Av. 1935-39..... | 101,142,053 | 92,273,005 | 86,848,305 | 5,424,700 | 4,328,000 | 18,075,723 |
| Av. 1940-44..... | 431,102,442 | 408,734,141 | 351,581,341 | 57,152,800 | 54,960,000 | 154,370,863 |
| Av. 1945-49..... | 119,587,196 | 115,603,876 | 82,718,676 | 32,885,200 | 31,265,600 | 24,698,778 |
| 1952..... | 217,177,826 | 214,934,143 | 195,672,143 | 19,262,000 | 18,000,000 | 98,782,136 |
| 1953..... | 383,185,486 | 382,545,625 | 288,829,625 | 93,716,000 | 91,000,000 | 154,702,768 |
| 1954..... | 618,675,202 ^r | 618,567,923 ^r | 386,707,923 | 231,860,000 ^r | 228,000,000 ^r | 211,475,266 ^r |
| 1955..... | 536,748,472 | 536,302,394 | 375,368,811 | 137,855,000 | 134,000,000 | 221,665,852 |
| 1956..... | 579,573,811 | 578,802,924 | 374,597,924 | 204,205,000 | 202,000,000 | 234,727,789 |
| Oats— | | | | | | |
| Av. 1935-39..... | 30,700,483 | 30,682,283 | 6,229,883 | 24,452,400 | 12,585,600 | 1,361,855 |
| Av. 1940-44..... | 74,984,299 | 74,212,213 | 16,435,613 | 57,776,600 | 43,826,600 | 6,500,924 |
| Av. 1945-49..... | 70,725,656 | 69,841,382 | 18,954,582 | 50,886,800 | 41,042,800 | 5,091,295 |
| 1952..... | 108,358,284 | 104,861,518 | 47,025,518 | 57,836,000 | 45,000,000 | 25,455,272 |
| 1953..... | 144,409,075 | 143,525,521 | 52,865,521 | 90,660,000 | 78,500,000 | 38,504,134 |
| 1954..... | 125,768,957 | 125,768,957 | 28,518,957 | 97,250,000 | 85,000,000 | 19,848,364 |
| 1955..... | 83,967,243 | 83,967,243 | 30,567,243 | 53,400,000 | 40,000,000 | 16,516,871 |
| 1956..... | 119,105,841 | 118,285,166 | 47,085,166 | 71,200,000 | 60,000,000 | 24,269,986 |
| Barley— | | | | | | |
| Av. 1935-39..... | 8,096,869 | 7,827,168 | 4,182,808 | 3,644,360 | 2,500,800 | 711,449 |
| Av. 1940-44..... | 29,922,222 | 28,868,755 | 12,191,755 | 16,677,000 | 15,453,000 | 4,138,057 |
| Av. 1945-49..... | 29,747,854 | 29,512,098 | 12,702,098 | 16,810,000 | 16,140,000 | 3,842,261 |
| 1952..... | 79,503,741 | 79,286,664 | 57,810,664 | 21,476,000 | 21,000,000 | 26,916,163 |
| 1953..... | 111,666,834 | 111,260,514 | 73,025,514 | 38,235,000 | 37,000,000 | 47,738,023 |
| 1954..... | 145,910,370 | 145,910,370 | 49,100,370 | 96,810,000 | 95,000,000 | 31,750,779 |
| 1955..... | 91,488,186 | 91,488,186 | 49,178,186 | 42,310,000 | 40,000,000 | 32,095,796 |
| 1956..... | 110,947,935 | 110,947,935 | 60,482,935 | 50,465,000 | 49,000,000 | 33,152,220 |
| Rye— | | | | | | |
| Av. 1935-39..... | 2,236,368 | 1,940,370 | 1,763,390 | 176,980 | 149,000 | 373,309 |
| Av. 1940-44..... | 6,897,205 | 4,942,647 | 3,260,247 | 1,682,400 | 1,617,800 | 1,172,857 |
| Av. 1945-49..... | 3,273,777 | 3,123,572 | 2,023,372 | 1,100,200 | 1,053,400 | 544,436 |
| 1952..... | 8,064,397 | 7,617,089 | 6,171,089 | 1,346,000 | 1,300,000 | 2,232,344 |
| 1953..... | 16,190,618 | 15,288,159 | 12,133,159 | 3,155,000 | 3,050,000 | 3,417,245 |
| 1954..... | 19,285,477 | 19,285,477 | 6,425,477 | 12,860,000 | 12,700,000 | 3,616,842 |
| 1955..... | 18,844,653 | 18,894,103 | 8,214,103 | 10,180,000 | 10,000,000 | 3,148,206 |
| 1956..... | 15,313,037 | 15,239,314 | 6,134,314 | 9,105,000 | 9,000,000 | 3,392,699 |
| Flaxseed— | | | | | | |
| Av. 1935-39..... | 277,016 | 277,016 | 271,356 | 5,660 | 5,000 | 64,481 |
| Av. 1940-44..... | 1,923,885 | 1,923,885 | 1,697,525 | 256,360 | 251,700 | 373,895 |
| Av. 1945-49..... | 3,888,325 | 3,888,325 | 3,423,525 | 464,800 | 461,400 | 240,711 |
| 1952..... | 2,588,918 | 2,588,918 | 2,054,918 | 534,000 | 515,000 | 526,003 |
| 1953..... | 3,939,420 | 3,939,420 | 2,468,420 | 1,471,000 | 1,450,000 | 972,940 |
| 1954..... | 2,577,712 | 2,577,712 | 1,547,712 | 1,030,000 | 1,000,000 | 441,588 |
| 1955..... | 1,234,064 | 1,234,064 | 909,064 | 325,000 | 300,000 | 98,586 |
| 1956..... | 2,507,471 | 2,507,471 | 2,067,471 | 440,000 | 440,000 | 239,523 |

Subsection 4.—Livestock

The numbers of livestock on farms in the different provinces for 1956 and 1957 are given in Table 15 and the average value per head of farm livestock is given, by province, in Table 16.

15.—Livestock on Farms by Province at June 1, 1956 and 1957

| Province and Item | 1956 ¹ | 1957 | Province and Item | 1956 ¹ | 1957 |
|------------------------------|-------------------|--------|------------------------------|-------------------|--------|
| | No. | No. | | No. | No. |
| Newfoundland..... | .. | .. | Nova Scotia— | | |
| Prince Edward Island— | | | Horses..... | 17,865 | 16,700 |
| Horses..... | 14,557 | 13,800 | Milk cows ² | 82,805 | 79,000 |
| Milk cows ² | 43,811 | 43,500 | Other cattle..... | 104,620 | 98,000 |
| Other cattle..... | 79,889 | 79,500 | Sheep..... | 83,215 | 83,000 |
| Sheep..... | 33,356 | 33,000 | Swine..... | 32,670 | 31,000 |
| Swine..... | 46,676 | 45,000 | | | |

For footnotes, see end of table.

15.—Livestock on Farms by Province at June 1, 1956 and 1957—concluded

| Province and Item | 1956 ¹ | 1957 | Province and Item | 1956 ¹ | 1957 |
|------------------------------|-------------------|-----------|------------------------------|-------------------|-----------|
| | No. | No. | | No. | No. |
| New Brunswick— | | | Saskatchewan— | | |
| Horses..... | 19,256 | 18,200 | Horses..... | 170,769 | 160,000 |
| Milk cows ² | 85,581 | 84,000 | Milk cows ² | 272,226 | 261,000 |
| Other cattle..... | 98,064 | 97,000 | Other cattle..... | 1,596,806 | 1,659,000 |
| Sheep..... | 63,980 | 66,000 | Sheep..... | 142,696 | 154,000 |
| Swine..... | 53,856 | 52,000 | Swine..... | 591,902 | 633,000 |
| Quebec— | | | Alberta— | | |
| Horses..... | 163,565 | 155,000 | Horses..... | 154,672 | 140,000 |
| Milk cows ² | 1,054,297 | 1,080,000 | Milk cows ² | 282,200 | 280,000 |
| Other cattle..... | 947,882 | 960,000 | Other cattle..... | 2,167,011 | 2,320,000 |
| Sheep..... | 338,600 | 331,000 | Sheep..... | 404,820 | 450,000 |
| Swine..... | 887,094 | 874,000 | Swine..... | 1,211,508 | 1,300,000 |
| Ontario— | | | British Columbia— | | |
| Horses..... | 139,661 | 130,000 | Horses..... | 26,729 | 25,400 |
| Milk cows ² | 1,025,907 | 1,012,000 | Milk cows ² | 90,157 | 87,500 |
| Other cattle..... | 1,875,763 | 1,958,000 | Other cattle..... | 332,702 | 312,500 |
| Sheep..... | 393,811 | 387,000 | Sheep..... | 86,053 | 86,000 |
| Swine..... | 1,548,280 | 1,565,000 | Swine..... | 48,472 | 41,000 |
| Manitoba— | | | Yukon and N.W.T. | .. | .. |
| Horses..... | 75,055 | 71,000 | Totals— | | |
| Milk cows ² | 222,990 | 220,000 | Horses..... | 782,129 | 730,100 |
| Other cattle..... | 648,490 | 665,000 | Milk cows ² | 3,159,974 | 3,147,000 |
| Sheep..... | 73,123 | 71,000 | Other cattle..... | 7,851,227 | 8,149,000 |
| Swine..... | 310,423 | 316,000 | Sheep..... | 1,619,654 | 1,661,000 |
| | | | Swine..... | 4,730,881 | 4,857,000 |

¹ Census figures.² Cows and heifers, two years old or over, kept for milk purposes.

16.—Average Value per Head of Farm Livestock by Province 1956 and 1957

(Exclusive of Newfoundland and the Yukon and Northwest Territories)

| Province and Item | 1956 | 1957 | Province and Item | 1956 | 1957 |
|------------------------------|------|------|------------------------------|------|------|
| | \$ | \$ | | \$ | \$ |
| Prince Edward Island— | | | Manitoba— | | |
| Horses..... | 91 | 92 | Horses..... | 82 | 85 |
| All cattle..... | 87 | 83 | All cattle..... | 100 | 98 |
| Milk cows ¹ | 131 | 127 | Milk cows ¹ | 141 | 137 |
| Other cattle..... | 62 | 59 | Other cattle..... | 86 | 85 |
| Sheep..... | 15 | 15 | Sheep..... | 15 | 15 |
| Swine..... | 25 | 31 | Swine..... | 22 | 29 |
| Nova Scotia— | | | Saskatchewan— | | |
| Horses..... | 119 | 119 | Horses..... | 65 | 74 |
| All cattle..... | 89 | 88 | All cattle..... | 97 | 98 |
| Milk cows ¹ | 124 | 123 | Milk cows ¹ | 140 | 139 |
| Other cattle..... | 61 | 60 | Other cattle..... | 90 | 91 |
| Sheep..... | 15 | 13 | Sheep..... | 14 | 16 |
| Swine..... | 26 | 28 | Swine..... | 21 | 27 |
| New Brunswick— | | | Alberta— | | |
| Horses..... | 119 | 121 | Horses..... | 64 | 72 |
| All cattle..... | 91 | 85 | All cattle..... | 97 | 101 |
| Milk cows ¹ | 130 | 118 | Milk cows ¹ | 148 | 152 |
| Other cattle..... | 58 | 56 | Other cattle..... | 90 | 95 |
| Sheep..... | 15 | 16 | Sheep..... | 16 | 17 |
| Swine..... | 26 | 31 | Swine..... | 23 | 33 |
| Quebec— | | | British Columbia— | | |
| Horses..... | 148 | 152 | Horses..... | 77 | 82 |
| All cattle..... | 95 | 95 | All cattle..... | 97 | 102 |
| Milk cows ¹ | 130 | 129 | Milk cows ¹ | 139 | 146 |
| Other cattle..... | 55 | 56 | Other cattle..... | 86 | 90 |
| Sheep..... | 14 | 14 | Sheep..... | 17 | 18 |
| Swine..... | 25 | 30 | Swine..... | 27 | 29 |
| Ontario— | | | Totals— | | |
| Horses..... | 109 | 120 | Horses..... | 95 | 102 |
| All cattle..... | 115 | 120 | All cattle..... | 101 | 103 |
| Milk cows ¹ | 155 | 164 | Milk cows ¹ | 141 | 144 |
| Other cattle..... | 93 | 97 | Other cattle..... | 85 | 88 |
| Sheep..... | 19 | 20 | Sheep..... | 16 | 17 |
| Swine..... | 26 | 34 | Swine..... | 24 | 32 |

¹ Cows and heifers, two years old or over, kept for milk purposes.

The Federal Department of Agriculture inspects all livestock in plants designated as inspected establishments under the Meat and Canned Foods Act. A statistical record is kept of these inspections and details are given in Table 17. Local wholesale butchering and slaughtering carried out by retail butchers and by farmers for their own use are not included. Actually the slaughtering and meat packing industry is concentrated into a comparatively small number of large establishments to facilitate greater efficiency and utilization of products; thus the figures of Table 17 are fairly inclusive. The slaughtering and meat packing industry is dealt with in its proper relation to all other manufacturing enterprises in Chapter XV of this volume. On a gross value basis it normally ranks among the three largest manufacturing industries in Canada but it owes its importance to the value of raw products obtained from the farmer and the rancher rather than to the value added by the manufacturing process.

17.—Livestock Slaughtered at Inspected Establishments 1941-55 and by Month 1956

(Exclusive of Newfoundland)

| Year | Cattle | Calves | Sheep | Hogs | Year and Month | Cattle | Calves | Sheep | Hogs |
|-----------|-----------|---------|-----------|-----------|----------------------|------------------|----------------|----------------|------------------|
| | No. | No. | No. | No. | 1956 | No. | No. | No. | No. |
| 1941..... | 1,003,691 | 727,829 | 828,603 | 6,280,345 | January..... | 141,694 | 42,828 | 36,953 | 493,000 |
| 1942..... | 970,415 | 666,672 | 825,368 | 6,196,850 | February..... | 128,553 | 41,980 | 27,813 | 449,128 |
| 1943..... | 1,021,054 | 594,087 | 889,317 | 7,168,525 | March..... | 159,918 | 87,933 | 32,385 | 590,117 |
| 1944..... | 1,354,121 | 661,245 | 959,169 | 8,766,417 | April..... | 135,783 | 106,643 | 22,030 | 494,319 |
| 1945..... | 1,891,024 | 787,626 | 1,185,161 | 5,681,629 | May..... | 137,904 | 98,914 | 15,008 | 458,211 |
| 1946..... | 1,668,441 | 752,343 | 1,213,235 | 4,252,591 | June..... | 169,028 | 96,640 | 25,420 | 523,161 |
| 1947..... | 1,291,759 | 665,311 | 900,766 | 4,452,816 | July..... | 142,732 | 66,487 | 30,940 | 375,160 |
| 1948..... | 1,489,883 | 787,410 | 768,943 | 4,487,649 | August..... | 147,117 | 68,530 | 54,618 | 352,178 |
| 1949..... | 1,439,489 | 766,277 | 629,673 | 4,098,609 | September..... | 197,563 | 85,605 | 96,615 | 449,958 |
| 1950..... | 1,284,683 | 773,205 | 521,089 | 4,405,055 | October..... | 162,983 | 69,863 | 97,761 | 414,594 |
| 1951..... | 1,149,789 | 583,718 | 438,518 | 4,488,007 | November..... | 177,304 | 68,835 | 107,996 | 451,356 |
| 1952..... | 1,237,630 | 567,760 | 512,966 | 6,234,145 | December..... | 173,784 | 57,357 | 52,435 | 497,107 |
| 1953..... | 1,469,406 | 740,723 | 543,371 | 4,611,312 | | | | | |
| 1954..... | 1,635,008 | 820,506 | 562,555 | 4,679,214 | | | | | |
| 1955..... | 1,702,108 | 828,658 | 591,566 | 5,543,787 | | | | | |
| | | | | | Totals, 1956. | 1,874,363 | 891,615 | 599,974 | 5,548,289 |

Wool.—Canada's wool requirements are largely met by imports which amounted to 58,226,000 lb. (greasy basis) in 1956 and 53,954,000 lb. in 1955. Exports amounted to 3,594,000 lb. in 1956 and 2,883,000 lb. in 1955. The apparent domestic consumption of wool shown in Table 18 is determined on the basis of production, exports and imports but does not take into consideration changes in stocks for which the data are not available. Differences in wool utilization between years are therefore probably less marked than indicated by these figures.

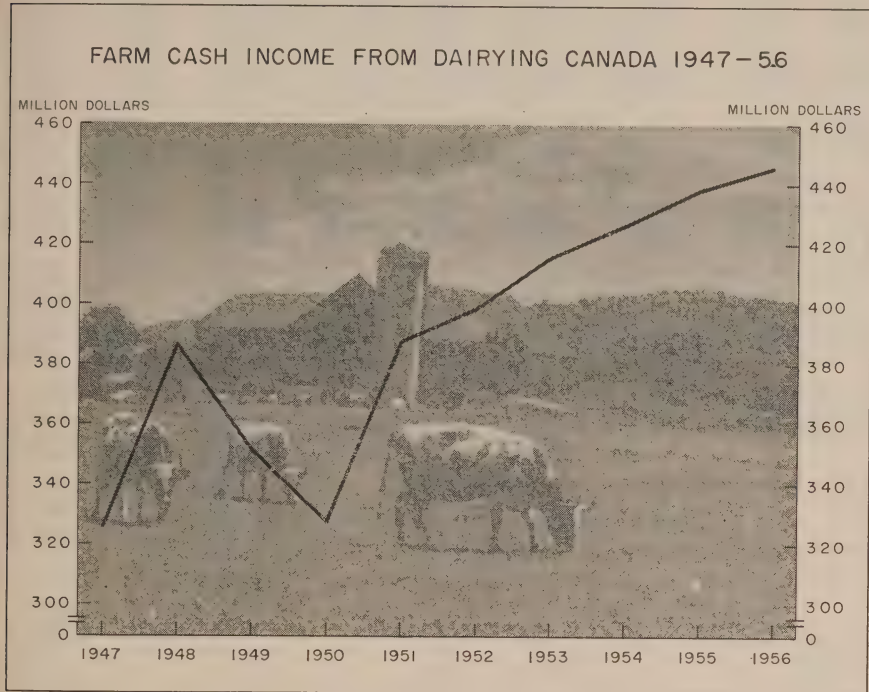
18.—Production and Apparent Consumption of Wool 1953-56

| Item | 1953 | 1954 | 1955 | 1956 ¹ |
|---------------------------------------|--------|--------|--------|-------------------|
| Shorn Wool— | | | | |
| Yield per fleece..... lb. | 7.4 | 7.4 | 7.4 | 7.3 |
| Total yield shorn..... '000 lb. | 6,355 | 6,496 | 6,446 | 6,165 |
| Price per pound..... cts. | 38.6 | 37.7 | 35.3 | 37.8 |
| Total value of shorn wool..... \$'000 | 2,450 | 2,451 | 2,277 | 2,328 |
| Total pulled wool..... '000 lb. | 1,862 | 1,555 | 1,595 | 1,707 |
| Total wool production..... " | 8,217 | 8,051 | 8,041 | 7,872 |
| Apparent consumption..... " | 67,649 | 46,788 | 59,112 | 62,504 |

¹ Census figures.

Subsection 5.—Dairying

Milk Production.—Milk production in 1956 amounted to 17,303,082,000 lb., an increase of 4,611,000 lb. over the previous year. The proportion of the total milk production used for factory-made dairy products decreased to 55.7 p.c. in 1956 from 57.1 p.c. in 1955. The proportion sold in fluid form was 32.3 p.c. in 1956 compared with 30.8 p.c. in 1955. Milk used for all purposes on farms (home consumed, manufactured and fed) was 12.0 p.c. in both years.



19.—Production and Utilization of Milk by Province 1954-56

| Province and Year | Used in Manufacture | | Milk Otherwise Used | | | Total Milk Production |
|--|---------------------|--------------|---------------------|--------------------|--------------|-----------------------|
| | On Farms | In Factories | Fluid Sales | Farm-Home Consumed | Fed on Farms | |
| | '000 lb. | '000 lb. | '000 lb. | '000 lb. | '000 lb. | '000 lb. |
| Newfoundland..... | .. | .. | .. | .. | .. | .. |
| Prince Edward Island.....1954 ^r | 8,518 | 160,586 | 27,687 | 20,240 | 6,552 | 223,583 |
| 1955 | 8,471 | 154,983 | 27,665 | 19,790 | 6,143 | 217,052 |
| 1956 | 7,862 | 159,371 | 27,259 | 19,960 | 5,224 | 219,676 |
| Nova Scotia.....1954 ^r | 24,196 | 179,207 | 174,669 | 49,030 | 14,204 | 441,306 |
| 1955 | 22,932 | 171,520 | 182,054 | 49,280 | 15,618 | 441,404 |
| 1956 | 22,464 | 169,211 | 190,046 | 49,250 | 15,548 | 446,519 |
| New Brunswick.....1954 ^r | 42,237 | 229,303 | 148,083 | 45,880 | 9,459 | 474,962 |
| 1955 | 41,348 | 226,893 | 152,676 | 52,030 | 7,655 | 480,602 |
| 1956 | 43,196 | 223,858 | 157,852 | 51,540 | 5,074 | 481,520 |

19.—Production and Utilization of Milk by Province 1954-56—concluded

| Province and Year | Used in Manufacture | | Milk Otherwise Used | | | Total Milk Production |
|--|---------------------|------------------|---------------------|--------------------|----------------|-----------------------|
| | On Farms | In Factories | Fluid Sales | Farm-Home Consumed | Fed on Farms | |
| | '000 lb. | '000 lb. | '000 lb. | '000 lb. | '000 lb. | '000 lb. |
| Quebec.....1954 ^r | 90,394 | 3,411,494 | 1,918,934 | 276,200 | 116,660 | 5,813,682 |
| 1955 | 79,794 | 3,566,918 | 2,000,226 | 285,500 | 127,880 | 6,060,318 |
| 1956 | 82,930 | 3,585,517 | 2,114,768 | 293,400 | 132,600 | 6,209,215 |
| Ontario.....1954 ^r | 31,590 | 3,293,649 | 1,721,583 | 223,900 | 175,100 | 5,445,822 |
| 1955 | 24,780 | 3,325,694 | 1,804,780 | 227,200 | 160,770 | 5,543,224 |
| 1956 | 25,670 | 3,209,803 | 1,871,294 | 237,500 | 148,050 | 5,492,317 |
| Manitoba.....1954 ^r | 46,777 | 629,657 | 219,389 | 97,470 | 52,380 | 1,045,673 |
| 1955 | 48,883 | 629,689 | 234,114 | 100,950 | 48,890 | 1,062,526 |
| 1956 | 46,894 | 589,822 | 243,385 | 100,100 | 45,790 | 1,025,991 |
| Saskatchewan.....1954 ^r | 126,266 | 657,725 | 248,045 | 169,700 | 95,520 | 1,297,256 |
| 1955 | 127,366 | 661,071 | 256,022 | 166,600 | 83,100 | 1,294,159 |
| 1956 | 127,343 | 621,339 | 270,063 | 161,400 | 85,440 | 1,265,585 |
| Alberta.....1954 ^r | 68,866 | 815,258 | 271,206 | 132,400 | 102,970 | 1,390,700 |
| 1955 | 64,139 | 837,841 | 286,155 | 137,100 | 104,880 | 1,430,115 |
| 1956 | 63,882 | 813,981 | 304,220 | 133,500 | 98,810 | 1,414,393 |
| British Columbia.....1954 ^r | 17,152 | 326,064 | 370,908 | 33,380 | 21,660 | 769,164 |
| 1955 | 17,129 | 310,627 | 386,445 | 33,980 | 20,890 | 769,071 |
| 1956 | 14,742 | 266,006 | 410,358 | 34,670 | 22,090 | 747,866 |
| Totals.....1954^r | 455,996 | 9,702,943 | 5,100,504 | 1,048,200 | 594,505 | 16,902,148 |
| 1955 | 434,842 | 9,885,236 | 5,330,137 | 1,072,430 | 575,826 | 17,298,471 |
| 1956 | 434,983 | 9,638,908 | 5,589,245 | 1,081,320 | 558,626 | 17,303,982 |

20.—Farm Values of Milk Production by Province 1954-56

| Province and Year | Value of Milk Used in Manufacture | | Value of Milk Otherwise Used | | | Value of Total Milk Production |
|--|-----------------------------------|--------------|------------------------------|--------------------|--------------|--------------------------------|
| | On Farms | In Factories | Fluid Sales | Farm-Home Consumed | Fed on Farms | |
| | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Newfoundland..... | .. | .. | .. | .. | .. | .. |
| Prince Edward Island.....1954 ^r | 218 | 3,344 | 1,016 | 494 | 577 | 5,649 |
| 1955 | 217 | 3,314 | 1,032 | 493 | 583 | 5,639 |
| 1956 | 202 | 3,401 | 1,005 | 487 | 563 | 5,658 |
| Nova Scotia.....1954 ^r | 589 | 4,090 | 7,725 | 1,402 | 978 | 14,784 |
| 1955 | 549 | 3,845 | 8,061 | 1,390 | 978 | 14,823 |
| 1956 | 557 | 3,722 | 8,372 | 1,359 | 945 | 14,955 |
| New Brunswick.....1954 ^r | 1,065 | 4,853 | 6,618 | 1,225 | 1,010 | 14,771 |
| 1955 | 1,060 | 4,788 | 6,812 | 1,410 | 1,063 | 15,133 |
| 1956 | 1,108 | 4,641 | 7,004 | 1,371 | 985 | 15,109 |
| Quebec.....1954 ^r | 2,279 | 77,049 | 76,676 | 7,292 | 10,996 | 174,292 |
| 1955 | 1,978 | 79,907 | 80,311 | 7,452 | 11,523 | 181,171 |
| 1956 | 2,056 | 80,435 | 83,590 | 7,570 | 11,314 | 184,965 |
| Ontario.....1954 ^r | 824 | 70,204 | 72,649 | 5,441 | 8,789 | 157,907 |
| 1955 | 635 | 70,380 | 75,236 | 5,453 | 8,245 | 159,949 |
| 1956 | 658 | 71,113 | 78,730 | 5,724 | 7,654 | 163,879 |
| Manitoba.....1954 ^r | 1,119 | 12,669 | 8,126 | 2,300 | 3,477 | 27,691 |
| 1955 | 1,170 | 12,616 | 8,656 | 2,372 | 3,396 | 28,210 |
| 1956 | 1,122 | 11,843 | 9,020 | 2,342 | 3,166 | 27,493 |

20.—Farm Values of Milk Production by Province 1954-56—concluded

| Province and Year | Value of Milk Used in Manufacture | | Value of Milk Otherwise Used | | | Value of Total Milk Production |
|--|--------------------------------------|-----------------|---------------------------------|-----------------------|-----------------|--------------------------------------|
| | On Farms | In Factories | Fluid Sales | Farm-Home Consumed | Fed on Farms | |
| | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$' 000 |
| Saskatchewan.....1954 ^r | 3,022 | 13,492 | 9,700 | 3,954 | 4,381 | 34,549 |
| 1955 | 3,048 | 13,631 | 10,029 | 3,898 | 4,108 | 34,714 |
| 1956 | 2,993 | 12,749 | 10,370 | 3,761 | 4,040 | 33,913 |
| Alberta.....1954 ^r | 1,648 | 17,316 | 11,582 | 3,178 | 4,879 | 38,603 |
| 1955 | 1,535 | 17,949 | 12,195 | 3,277 | 4,757 | 39,713 |
| 1956 | 1,529 | 17,345 | 12,689 | 3,204 | 4,747 | 39,514 |
| British Columbia.....1954 ^r | 418 | 9,019 | 19,398 | 935 | 761 | 30,531 |
| 1955 | 425 | 8,848 | 19,928 | 958 | 732 | 30,891 |
| 1956 | 365 | 7,881 | 21,100 | 946 | 672 | 30,964 |
| Totals.....1954^r | 11,182 | 212,036 | 213,490 | 26,221 | 35,848 | 498,777 |
| 1955 | 10,617 | 215,278 | 222,260 | 26,703 | 35,385 | 510,243 |
| 1956 | 10,590 | 213,130 | 231,880 | 26,764 | 34,086 | 516,450 |

Butter, Cheese and Other Dairy Products.—Butter production in 1956 amounted to 323,680,000 lb., 15,297,000 lb. less than in 1955. Of the total, 303,248,000 lb. was creamery butter, 18,589,000 lb. dairy or farm-made butter and 1,843,000 lb. whey butter.

Factory cheese production in 1956 was estimated at 93,082,000 lb., an increase of 6.3 p.c. over the 1955 estimate but 55.1 p.c. below the peak production of 207,431,000 lb. in 1942. Exports of cheese, mostly cheddar, amounted to 12,217,000 lb. in 1956 and 13,739,000 lb. in 1955 as compared with 135,409,000 lb. in 1945.

The over-all production of concentrated milk products increased to its highest level in 1956. The production of ice cream during 1956 increased about 807,000 gal. over that of 1955.

21.—Production of Butter and Cheese by Province 1954-56

| Province and Year | Butter | | | | Cheese |
|--|----------|----------|----------|----------|----------------------|
| | Creamery | Dairy | Whey | Total | Factory ¹ |
| | '000 lb. | '000 lb. | '000 lb. | '000 lb. | '000 lb. |
| Newfoundland..... | .. | .. | .. | .. | .. |
| Prince Edward Island.....1954 ^r | 6,125 | 364 | 17 | 6,506 | 916 |
| 1955 | 5,836 | 362 | — | 6,198 | 683 |
| 1956 | 5,645 | 336 | 12 | 5,993 | 856 |
| Nova Scotia.....1954 ^r | 6,152 | 1,034 | — | 7,186 | — |
| 1955 | 5,841 | 980 | — | 6,821 | — |
| 1956 | 5,653 | 960 | — | 6,613 | — |
| New Brunswick.....1954 ^r | 8,787 | 1,805 | — | 10,592 | 805 |
| 1955 | 8,713 | 1,767 | — | 10,480 | 757 |
| 1956 | 8,542 | 1,846 | — | 10,388 | 833 |
| Quebec.....1954 | 119,801 | 3,863 | 166 | 123,830 | 18,276 |
| 1955 | 124,700 | 3,410 | 160 | 128,270 | 17,832 |
| 1956 | 122,337 | 3,544 | 208 | 126,089 | 25,085 |
| Ontario.....1954 ^r | 83,157 | 1,350 | 1,775 | 86,282 | 67,745 |
| 1955 | 84,207 | 1,059 | 1,634 | 86,900 | 64,133 |
| 1956 | 79,540 | 1,097 | 1,618 | 82,255 | 62,494 |
| Manitoba.....1954 | 25,012 | 1,999 | 18 | 27,029 | 1,227 |
| 1955 | 25,018 | 2,089 | 18 | 27,125 | 1,043 |
| 1956 | 23,360 | 2,004 | 1 | 25,365 | 1,069 |

For footnote, see end of table, p. 436.

21.—Production of Butter and Cheese by Province 1954-56—concluded

| Province and Year | Butter | | | | Cheese |
|--|----------------|---------------|--------------|----------------|----------------------|
| | Creamery | Dairy | Whey | Total | Factory ¹ |
| | '000 lb. | '000 lb. | '000 lb. | '000 lb. | '000 lb. |
| Saskatchewan.....1954 | 26,760 | 5,396 | — | 32,156 | 148 |
|1955 | 26,836 | 5,443 | — | 32,279 | 93 |
|1956 | 25,099 | 5,442 | — | 30,541 | 30 |
| Alberta.....1954 ^r | 30,369 | 2,943 | 5 | 33,317 | 2,580 |
|1955 | 31,326 | 2,741 | 5 | 34,072 | 2,151 |
|1956 | 30,220 | 2,730 | 4 | 32,954 | 1,933 |
| British Columbia.....1954 ^r | 7,067 | 733 | — | 7,800 | 787 |
|1955 | 6,100 | 732 | — | 6,832 | 693 |
|1956 | 2,852 | 630 | — | 3,482 | 562 |
| Totals.....1954^r | 313,230 | 19,487 | 1,981 | 334,698 | 92,587 |
|1955 | 318,577 | 18,583 | 1,817 | 338,977 | 87,554 |
|1956 | 303,248 | 18,589 | 1,843 | 323,680 | 93,082 |

¹ Factory-made cheese includes cheddar and other cheese made from whole milk and cream. Amounts for "other cheese" are included in Quebec and Ontario figures but as fewer than three firms reported in the other provinces data cannot be included, except in the Canada total.

22.—Production of Concentrated Milk Products 1952-56

(Exclusive of Newfoundland)

| Product | 1952 | 1953 | 1954 ^r | 1955 | 1956 |
|---|----------------|----------------|-------------------|----------------|----------------|
| | '000 lb. | '000 lb. | '000 lb. | '000 lb. | '000 lb. |
| Concentrated Whole Milk Products..... | 350,195 | 323,320 | 331,021 | 348,467 | 365,477 |
| Evaporated milk..... | 305,715 | 272,009 | 280,350 | 294,938 | 305,058 |
| Condensed milk..... | 16,539 | 18,462 | 13,648 | 13,237 | 17,168 |
| Whole milk powder..... | 16,035 | 18,744 | 18,819 | 20,861 | 20,360 |
| Miscellaneous whole milk products..... | 11,906 | 14,105 | 18,204 | 19,431 | 22,891 |
| Concentrated Milk By-products¹..... | 122,856 | 116,466 | 119,216 | 126,132 | 118,543 |
| Condensed skim milk..... | 4,741 | 4,037 | 3,928 | 4,295 | 3,444 |
| Evaporated skim milk..... | 10,428 | 10,789 | 10,603 | 9,090 | 8,693 |
| Skim milk powder..... | 88,229 | 82,914 | 83,332 | 87,115 | 78,969 |
| Condensed buttermilk..... | 2,668 | 1,487 | 1,846 | 2,016 | 720 |
| Buttermilk powder..... | 6,606 | 6,565 | 6,665 | 6,599 | 7,715 |
| Casein..... | 2,898 | 4,885 | 6,165 | 6,351 | 7,807 |
| Whey powder..... | 6,288 | 4,909 | 5,187 | 9,345 | 10,986 |
| Totals..... | 473,051 | 439,786 | 450,237 | 474,599 | 484,020 |

¹ Includes sugar of milk (lactose).

23.—Production of Ice Cream by Province 1952-56

| Province | 1952 | 1953 | 1954 | 1955 | 1956 | Province | 1952 | 1953 | 1954 | 1955 | 1956 |
|--------------------|-----------|-----------|-----------|-----------|-----------|-----------------------|---------------|---------------|---------------|---------------|---------------|
| | '000 gal. | '000 gal. | '000 gal. | '000 gal. | '000 gal. | | '000 gal. | '000 gal. | '000 gal. | '000 gal. | '000 gal. |
| Newfoundland..... | .. | .. | .. | .. | .. | Manitoba..... | 1,832 | 1,782 | 1,706 | 1,784 | 1,665 |
| P. E. Island..... | 196 | 175 | 166 | 179 | 174 | Saskatchewan..... | 1,748 | 1,818 | 1,748 | 1,876 | 1,963 |
| Nova Scotia..... | 1,478 | 1,411 | 1,388 | 1,363 | 1,385 | Alberta..... | 2,293 | 2,453 | 2,487 | 2,716 | 2,912 |
| New Brunswick..... | 867 | 850 | 871 | 862 | 869 | British Columbia..... | 2,964 | 3,058 | 3,054 | 3,317 | 3,804 |
| Quebec..... | 5,702 | 6,564 | 6,414 | 7,822 | 8,190 | Totals..... | 27,262 | 28,809 | 28,645 | 32,410 | 33,217 |
| Ontario..... | 10,182 | 10,698 | 10,811 | 12,491 | 12,255 | | | | | | |

Domestic Disappearance of Dairy Products.—The estimated consumption of fluid milk and cream, on a milk basis, amounted to 5,040,998,000 pt. in 1956, 201,725,000 pt. higher than the 1955 consumption. The daily average consumption per capita was 0.88 pt. The estimated consumption of milk and cream is given by province in Table 24 and the domestic disappearance of all dairy products in Table 25.

24.—Estimated Consumption of Milk and Cream (expressed as Milk) by Province 1954-56

| Province and Year | Estimated Consumption | Daily per Capita Consumption | Province and Year | Estimated Consumption | Daily per Capita Consumption |
|------------------------------|-----------------------|------------------------------|----------------------------|-----------------------|------------------------------|
| | '000 pt. | pt. | | '000 pt. | pt. |
| Newfoundland..... | .. | .. | Manitoba.....1954* | 240,524 | 0.80 |
| Prince Edward Island....1954 | 36,509 | 0.95 | 1955 | 254,295 | 0.82 |
| 1955 | 36,143 | 0.92 | 1956 | 260,608 | 0.84 |
| 1956 | 35,970 | 0.99 | Saskatchewan.....1954* | 318,065 | 0.99 |
| Nova Scotia.....1954* | 169,348 | 0.69 | 1955 | 321,659 | 0.99 |
| 1955 | 175,095 | 0.70 | 1956 | 328,187 | 1.02 |
| 1956 | 181,081 | 0.71 | Alberta.....1954 | 306,566 | 0.81 |
| New Brunswick.....1954* | 146,916 | 0.74 | 1955 | 321,450 | 0.83 |
| 1955 | 155,136 | 0.76 | 1956 | 332,242 | 0.81 |
| 1956 | 158,648 | 0.78 | British Columbia.....1954* | 304,776 | 0.66 |
| Quebec.....1954 | 1,657,027 | 1.03 | 1955 | 316,924 | 0.67 |
| 1955 | 1,725,364 | 1.05 | 1956 | 335,440 | 0.66 |
| 1956 | 1,817,616 | 1.07 | | | |
| Ontario.....1954 | 1,468,089 | 0.80 | Totals.....1954* | 4,647,820 | 0.86 |
| 1955 | 1,533,207 | 0.81 | 1955 | 4,839,273 | 0.87 |
| 1956 | 1,591,206 | 0.80 | 1956 | 5,040,998 | 0.88 |

25.—Domestic Disappearance of Dairy Products 1954-56

| Product | 1954* | | 1955 | | 1956 | |
|--|------------------|-------------------------|------------------|-------------------------|------------------|-------------------------|
| | Total | Per Capita ¹ | Total | Per Capita ¹ | Total | Per Capita ¹ |
| | '000 lb. | lb. | '000 lb. | lb. | '000 lb. | lb. |
| Milk and Cream..... | 5,995,689 | 405.20 | 6,242,663 | 411.00 | 6,502,888 | 415.10 |
| Milk..... | 5,059,076 | 341.90 | 5,280,576 | 347.66 | 5,488,453 | 350.34 |
| Cream as milk..... | 936,613 | 63.30 | 962,087 | 63.34 | 1,014,435 | 64.76 |
| Cream as product..... | 198,064 | 13.39 | 203,162 | 13.38 | 210,298 | 13.42 |
| Butter..... | 314,719 | 20.71 | 321,933 | 20.63 | 334,049 | 20.78 |
| Creamery..... | 293,292 | 19.30 | 301,645 | 19.33 | 313,538 | 19.50 |
| Dairy..... | 19,487 | 1.28 | 18,583 | 1.19 | 18,589 | 1.16 |
| Whey..... | 1,940 | 0.13 | 1,705 | 0.11 | 1,922 | 0.12 |
| Cheese..... | 97,186 | 6.39 | 104,029 | 6.67 | 102,080 | 6.35 |
| Cheddar..... | 39,835 | 2.62 | 45,329 | 2.91 | 40,360 | 2.51 |
| Process..... | 44,422 | 2.92 | 44,648 | 2.86 | 44,244 | 2.75 |
| Other..... | 12,929 | 0.85 | 14,052 | 0.90 | 17,476 | 1.09 |
| Concentrated Whole Milk Products²... | 311,722 | 20.51 | 323,015 | 20.64 | 343,040 | 21.33 |
| Evaporated..... | 275,955 | 18.16 | 288,382 | 18.48 | 299,621 | 18.63 |
| Condensed..... | 12,348 | 0.81 | 11,926 | 0.76 | 14,978 | 0.93 |
| Powdered..... | 5,211 | 0.34 | 2,970 | 0.19 | 4,840 | 0.30 |

For footnotes, see end of table, p. 438.

25.—Domestic Disappearance of Dairy Products 1954-56—concluded

| Product | 1954 ¹ | | 1955 | | 1956 | |
|---|-------------------|----------------------------|-------------------|----------------------------|-------------------|----------------------------|
| | Total | Per Capita ¹ | Total | Per Capita ¹ | Total | Per Capita ¹ |
| | '000 lb. | lb. | '000 lb. | lb. | '000 lb. | lb. |
| Concentrated Milk By-products^{2,4}..... | 107,412 | 7.07 | 115,820 | 7.42 | 117,819 | 7.33 |
| Evaporated..... | 12,775 | 0.84 | 9,089 | 0.58 | 8,693 | 0.54 |
| Condensed..... | 4,023 | 0.26 | 4,330 | 0.28 | 3,428 | 0.21 |
| Powdered..... | 71,768 | 4.72 | 80,474 | 5.16 | 81,735 | 5.08 |
| All Dairy Products in Terms of Milk— | | | | | | |
| Butter..... | 7,319,029 | 481.67 | 7,493,335 | 480.31 | 7,771,772 | 483.29 |
| Cheese..... | 923,247 | 60.76 | 988,919 | 63.39 | 985,125 | 61.26 |
| Concentrated..... | 741,831 | 48.82 | 752,004 | 48.20 | 802,924 | 49.93 |
| Grand Totals⁵..... | 15,465,503 | 1,028.41 | 16,026,854 | 1,038.15 | 16,626,514 | 1,044.64 |

¹ Includes Newfoundland for all manufactured dairy products.² Includes malted milk, cream

powder and substandard products of a variable fat content, items that do not appear separately in this table.

³ Includes milk by-products items not separately listed, i.e., condensed buttermilk, powdered buttermilk, sugar of milk, casein and powdered whey.⁴ Since the quantities used for human consumption and livestock feeding cannot definitely be established, per capita figures include both.⁵ Includes ice cream in terms of milk.

Subsection 6.—Poultry and Eggs

Statistics of production and consumption of poultry meat and eggs are given in Tables 26 to 28.

26.—Numbers and Values of Poultry on Farms by Province as at June 1, 1956 and 1957

| Province and Year | Hens and Chickens | | Turkeys | | Geese | | Ducks | | Totals | |
|-------------------------------------|-------------------------|---------------|--------------|---------------|------------|------------|------------|------------|---------------|---------------|
| | No. | Value | No. | Value | No. | Value | No. | Value | No. | Value |
| | '000 | \$'000 | '000 | \$'000 | '000 | \$'000 | '000 | \$'000 | '000 | \$'000 |
| Newfoundland ¹1956 | 106 | 264 | 2 | 14 | .. | 1 | .. | 2 | 109 | 281 |
| P. E. Island.....1956 | 812 | 795 | 14 | 33 | 9 | 22 | 5 | 7 | 840 | 857 |
|1957 | 770 | 759 | 11 | 25 | 9 | 23 | 6 | 9 | 796 | 816 |
| Nova Scotia.....1956 | 1,909 | 2,600 | 54 | 165 | 3 | 8 | 2 | 3 | 1,968 | 2,776 |
|1957 | 1,832 | 2,466 | 56 | 142 | 2 | 6 | 1 | 2 | 1,891 | 2,616 |
| New Brunswick.....1956 | 1,125 | 1,384 | 45 | 150 | 4 | 12 | 2 | 3 | 1,176 | 1,549 |
|1957 | 1,090 | 1,350 | 42 | 149 | 4 | 13 | 2 | 3 | 1,138 | 1,515 |
| Quebec.....1956 | 10,882 | 12,157 | 632 | 2,023 | 12 | 37 | 45 | 69 | 11,571 | 14,286 |
|1957 | 11,300 | 12,170 | 610 | 1,817 | 10 | 30 | 40 | 64 | 11,960 | 14,081 |
| Ontario.....1956 | 24,934 | 26,040 | 1,415 | 4,273 | 96 | 231 | 124 | 153 | 26,569 | 30,697 |
|1957 | 27,825 | 26,403 | 1,650 | 3,809 | 96 | 222 | 124 | 143 | 29,695 | 30,577 |
| Manitoba.....1956 | 5,990 | 4,573 | 664 | 1,458 | 48 | 91 | 40 | 41 | 6,742 | 6,163 |
|1957 | 6,350 | 4,564 | 780 | 1,602 | 34 | 66 | 40 | 37 | 7,204 | 6,269 |
| Saskatchewan... ..1956 | 8,219 | 6,021 | 773 | 1,697 | 52 | 113 | 78 | 86 | 9,122 | 7,917 |
|1957 | 8,100 | 5,490 | 900 | 1,871 | 48 | 112 | 67 | 74 | 9,115 | 7,547 |
| Alberta.....1956 | 9,444 | 7,146 | 820 | 1,956 | 86 | 184 | 99 | 110 | 10,449 | 9,396 |
|1957 | 9,750 | 7,306 | 860 | 1,994 | 80 | 168 | 90 | 96 | 10,780 | 9,564 |
| British Columbia...1956 | 4,221 | 4,978 | 354 | 1,032 | 14 | 41 | 24 | 37 | 4,613 | 6,088 |
|1957 | 4,220 | 5,023 | 333 | 940 | 12 | 37 | 24 | 36 | 4,589 | 6,036 |
| Totals.....1956 | 67,642 | 65,958 | 4,772 | 12,801 | 326 | 740 | 421 | 511 | 73,161 | 80,010 |
|1957 | 71,237 | 65,531 | 5,242 | 12,349 | 295 | 677 | 394 | 464 | 77,168 | 79,021 |

¹ Census data; annual estimates are not available.

27.—Production, Utilization and Value of Farm Eggs by Province 1956

| Province | Average Number of Layers ¹ | Average Pro- duction per 100 Layers | Net Eggs Laid ² | Sold ³ | Used by Pro- ducers ³ | Value per Dozen ⁴ | Total Value Sold and Used |
|---------------------------|---|---|----------------------------------|-------------------|--|------------------------------------|---------------------------------------|
| | '000 | No. | '000 doz. | '000 doz. | '000 doz. | cts. | \$'000 |
| Newfoundland..... | | | | | | | |
| Prince Edward Island..... | 414 | 17,470 | 5,995 | 5,213 | 782 | 36.6 | 2,197 |
| Nova Scotia..... | 1,170 | 19,991 | 19,360 | 17,863 | 1,497 | 47.9 | 9,272 |
| New Brunswick..... | 587 | 17,522 | 8,510 | 7,031 | 1,479 | 50.5 | 4,295 |
| Quebec..... | 4,037 | 17,859 | 59,544 | 50,618 | 8,926 | 46.5 | 27,717 |
| Ontario..... | 10,503 | 18,743 | 162,641 | 151,211 | 11,430 | 46.5 | 75,566 |
| Manitoba..... | 2,344 | 17,113 | 33,090 | 28,629 | 4,461 | 35.3 | 11,685 |
| Saskatchewan..... | 2,970 | 15,769 | 38,577 | 28,607 | 9,970 | 33.4 | 12,879 |
| Alberta..... | 3,330 | 16,603 | 45,526 | 37,253 | 8,273 | 34.9 | 15,877 |
| British Columbia..... | 2,056 | 18,285 | 31,068 | 28,619 | 2,449 | 47.1 | 14,628 |
| Totals..... | 27,411 | 17,865 | 404,311 | 355,044 | 49,267 | 43.1 | 174,116 |

¹ Hens and pullets over six months old.² Total laid less loss.³ Includes eggs used for hatching.⁴ Average value at farms for all purposes.

28.—Production and Domestic Disappearance of Eggs and Poultry 1956

| Item | Net Production | Total Supply | Domestic Disappearance | Per Capita Consumption |
|---------------------------------|-------------------|----------------------------|----------------------------|---------------------------|
| | '000 doz. | '000 doz. | '000 doz. | doz. |
| Eggs..... | 404,311 | 414,669 | 403,110¹ | 24.3 |
| | '000 lb. | '000 lb. | '000 lb. | lb. |
| Poultry²..... | 480,986 | 556,152³ | 507,890³ | 31.6 |
| Fowl and chickens..... | 378,516 | 419,910 | 392,773 | 24.4 |
| Turkeys..... | 95,482 | 126,940 | 107,177 | 6.7 |
| Geese..... | 3,473 | 3,688 | 3,533 | 0.2 |
| Ducks..... | 3,515 | 5,062 | 4,817 | 0.3 |

¹ Includes hatching eggs.² Basis dressed weight.³ Includes stocks in transit and unclassified.

Subsection 7.—Fruit, Nursery Stock and Vegetables

Fruit.—Commercial fruit growing in Canada is confined almost exclusively to rather limited areas in the Provinces of Nova Scotia, New Brunswick, Quebec, Ontario and British Columbia. Nova Scotia production is centred mainly in the Annapolis Valley and New Brunswick production in the St. John River Valley and Westmorland County. The fruit growing districts of Quebec are the Montreal area, the North Shore area, the Eastern Townships and the Quebec City district. Ontario fruit is grown in all the counties adjacent to the St. Lawrence River and the Great Lakes as far west as Georgian Bay, the Niagara district being the most productive. In British Columbia the four well defined fruit areas are the Okanagan Valley, the Fraser Valley, the Kootenay and Arrow Lakes district and Vancouver Island. The climate elsewhere in Canada is not generally suitable for commercial tree-fruit culture. In most producing areas, particularly in the Annapolis Valley of Nova Scotia, the Niagara Peninsula of Ontario and the Okanagan Valley of British Columbia, fruit growing is either the principal or one of the most important forms of agriculture and is of paramount importance to the economy of those areas. Apples and small fruits are produced commercially in the provinces named but tender tree fruits and commercial vineyards are largely limited to Ontario and British Columbia.

Strawberries are grown commercially in all provinces for which tree fruit statistics are prepared as well as in Prince Edward Island. However, this crop is produced over a somewhat wider area than are tree fruits. In Nova Scotia for example a considerable

volume of strawberries is grown in Colchester County and farther north as well as in the apple producing areas of the Annapolis Valley. In British Columbia most of the strawberries are grown in the Fraser Valley rather than in the predominantly tree-fruit producing area of the Okanagan Valley.

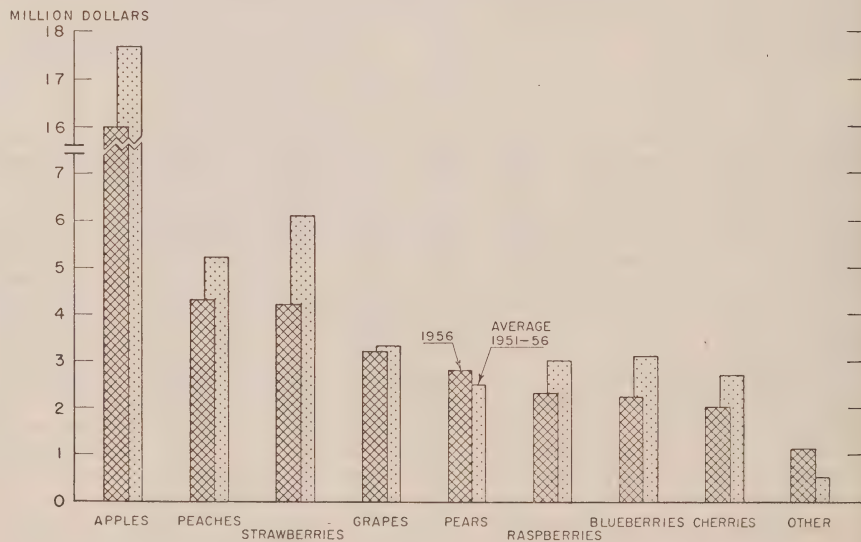
Raspberries are grown commercially in Nova Scotia, New Brunswick and Quebec but the bulk of the crop is produced in Ontario and British Columbia with the Fraser Valley of British Columbia being the most important single area in Canada.

Wild blueberries are harvested on a commercial scale in Newfoundland, Prince Edward Island, Nova Scotia, New Brunswick and Quebec. This crop is indigenous to certain lands in these areas. Individuals who harvest the wild berries may undertake to burn the land from time to time for weed control and to effect pruning. Dusting is often carried out to control insects, and bees are sometimes introduced to secure better pollination. A large percentage of the crop is frozen and exported. Some blueberries are picked for sale in other provinces but no statistics are available. There is also some production of cultivated blueberries, particularly in British Columbia.

A marketing system has been developed for distributing fresh fruit from the specialized production areas to all parts of the country and a large proportion of the deciduous fruit consumed in Canada is grown domestically. Considerable quantities of apples, strawberries and blueberries are exported annually, with the United States as the most important export market for Canadian fruit. Import restrictions by the United Kingdom have greatly reduced exports of Canadian fruit to that market in recent years.

Canning and processing industries have developed in the fruit growing districts and, although the importance of the processing market varies with different fruits, it provides a valuable outlet for substantial proportions of most Canadian grown fruit crops. Some canned fruits are exported.

FARM VALUE OF COMMERCIAL FRUIT PRODUCTION, CANADA 1956
COMPARED WITH 1951-56 AVERAGE



29.—Estimated Commercial Production and Farm Value of Fruit 1954-56

| Kind of Fruit and Year | Quantity | Weight | Farm Value | Average Farm Price per Unit of Quantity ¹ | Kind of Fruit and Year | Quantity | Weight | Farm Value | Average Farm Price per Unit of Quantity ¹ |
|------------------------|----------|----------|------------|--|------------------------|----------|----------|------------|--|
| | '000 bu. | '000 lb. | \$'000 | \$ | | '000 bu. | '000 lb. | \$'000 | \$ |
| Apples— | | | | | Cherries (sour)— | | | | |
| 1954r..... | 14,500 | 652,500 | 17,965 | 1.24 | 1954r..... | 426 | 21,300 | 2,114 | 4.96 |
| 1955..... | 19,142 | 861,390 | 10,870 | 0.57 | 1955..... | 542 | 27,100 | 2,208 | 4.07 |
| 1956..... | 12,424 | 559,080 | 16,048 | 1.29 | 1956..... | 292 | 14,600 | 1,253 | 4.29 |
| Pears— | | | | | Strawberries— | '000 qt. | | | |
| 1954r..... | 1,261 | 63,050 | 2,246 | 1.78 | 1954r..... | 27,971 | 37,267 | 6,870 | 0.25 |
| 1955..... | 1,510 | 75,500 | 2,579 | 1.71 | 1955..... | 22,674 | 30,223 | 5,910 | 0.26 |
| 1956..... | 1,400 | 70,000 | 2,853 | 2.04 | 1956..... | 19,112 | 24,300 | 4,240 | 0.22 |
| Plums and Prunes— | | | | | Raspberries— | | | | |
| 1954r..... | 716 | 35,800 | 1,467 | 2.05 | 1954r..... | 12,839 | 18,356 | 3,131 | 0.24 |
| 1955..... | 815 | 40,750 | 1,068 | 1.31 | 1955..... | 12,099 | 17,411 | 2,775 | 0.23 |
| 1956..... | 534 | 26,700 | 896 | 1.68 | 1956..... | 6,656 | 9,193 | 2,320 | 0.35 |
| Peaches— | | | | | Loganberries— | '000 lb. | | | |
| 1954r..... | 2,425 | 121,250 | 5,208 | 2.15 | 1954r..... | 1,056 | 1,056 | 162 | 0.15 |
| 1955..... | 2,883 | 144,150 | 6,125 | 2.12 | 1955..... | 1,237 | 1,237 | 178 | 0.14 |
| 1956..... | 1,667 | 83,350 | 4,384 | 2.63 | 1956..... | 279 | 279 | 53 | 0.19 |
| Apricots— | | | | | Grapes— | | | | |
| 1954r..... | 118 | 5,900 | 293 | 2.48 | 1954r..... | 88,876 | 88,876 | 3,926 | 0.04 |
| 1955..... | 184 | 9,200 | 316 | 1.72 | 1955..... | 94,752 | 94,752 | 3,622 | 0.04 |
| 1956..... | 84 | 4,200 | 194 | 2.31 | 1956..... | 80,274 | 80,274 | 3,293 | 0.04 |
| Cherries (sweet)— | | | | | Blueberries— | | | | |
| 1954r..... | 174 | 8,700 | 1,307 | 7.51 | 1954r..... | 31,755 | 31,755 | 3,409 | 0.11 |
| 1955..... | 221 | 11,050 | 1,295 | 5.86 | 1955..... | 25,062 | 25,062 | 2,688 | 0.11 |
| 1956..... | 96 | 4,800 | 823 | 8.57 | 1956..... | 14,958 | 14,958 | 2,290 | 0.15 |

¹ Price to growers (to pickers in the case of blueberries) for unpacked fruit.

30.—Quantity and Value of Commercial Fruit Produced by Province 1954-56

| Province | Quantity | | | Value ¹ | | |
|---------------------------|------------------|------------------|----------------|--------------------|---------------|---------------|
| | 1954r | 1955 | 1956 | 1954r | 1955 | 1956 |
| | '000 lb. | '000 lb. | '000 lb. | \$'000 | \$'000 | \$'000 |
| Newfoundland..... | 1,949 | 481 | 597 | 125 | 38 | 48 |
| Prince Edward Island..... | 1,417 | 1,506 | 2,092 | 197 | 188 | 344 |
| Nova Scotia..... | 106,131 | 153,231 | 107,528 | 3,032 | 1,856 | 2,467 |
| New Brunswick..... | 15,781 | 24,368 | 18,037 | 998 | 849 | 1,177 |
| Quebec..... | 143,265 | 249,267 | 140,026 | 8,114 | 5,442 | 5,936 |
| Ontario..... | 429,949 | 511,105 | 367,110 | 21,896 | 18,935 | 18,116 |
| British Columbia..... | 387,318 | 397,867 | 256,344 | 13,736 | 12,326 | 10,550 |
| Totals..... | 1,085,810 | 1,337,825 | 891,734 | 48,098 | 39,634 | 38,647 |

¹ Farm value (to pickers in the case of blueberries) for unpacked fruit.

Nursery Stock.—Statistics concerning the nursery industry in Canada for the year ended June 30, 1956, are presented in Tables 31 and 32. All nurseries were asked to report quantities sold of stock propagated or imported during this period. Stock purchased from other nurseries in Canada was excluded to prevent duplication. A total of 127 nurseries reported in 1956 as compared with 155 in 1955. Provincial distribution was as follows: Ontario 63, Quebec 29, British Columbia 20, Manitoba 7, Saskatchewan 2, Alberta 2 and the Maritime Provinces 4.

31.—Nursery Stock Shipments by Type, Crop Years Ended June 30, 1955 and 1956

| Classification | 1954-55 | | | 1955-56 | | |
|-------------------------------------|--------------------|--------------------|-----------|--------------------|--------------------|-----------|
| | Domestic Shipments | Imported Shipments | Total | Domestic Shipments | Imported Shipments | Total |
| | No. | No. | No. | No. | No. | No. |
| Fruit Trees, Shrubs, Plants— | | | | | | |
| Apple species..... | 237,870 | — | 237,870 | 263,786 | — | 263,786 |
| Tender tree fruit species..... | 292,653 | 300 | 292,953 | 188,885 | 11,760 | 200,645 |
| Small fruit species..... | 3,293,784 | — | 3,293,784 | 3,113,033 | 14,566 | 3,127,599 |
| Other species..... | 327,773 | — | 327,773 | 491,857 | — | 491,857 |
| Ornamental Species— | | | | | | |
| Rose bushes..... | 622,637 | 335,962 | 958,599 | 338,185 | 238,796 | 576,981 |
| Other ornamental shrubs..... | 2,537,801 | 459,251 | 2,997,052 | 2,077,170 | 413,232 | 2,490,402 |
| Deciduous trees..... | 289,780 | 15,688 | 305,468 | 377,351 | 15,115 | 392,466 |
| Evergreen trees..... | 505,329 | 253,782 | 759,091 | 545,952 | 180,352 | 726,304 |
| Ornamental climbers..... | 32,011 | 19,075 | 51,086 | 36,127 | 14,701 | 50,828 |
| Bulbs and tubers..... | 418,291 | 711,916 | 1,130,207 | 588,003 | 830,425 | 1,418,428 |
| Herbaceous perennials..... | 676,590 | 16,503 | 693,093 | 629,049 | 12,740 | 641,789 |

32.—Acreage of Nursery Stock by Province, Crop Years Ended June 30, 1955 and 1956

| Province | 1954-55 | | 1955-56 | |
|---------------------------|---------------|--------------------|---------------|--------------------|
| | Fruit Species | Ornamental Species | Fruit Species | Ornamental Species |
| | acres | acres | acres | acres |
| Quebec ¹ | 28.5 | 177.1 | 23.3 | 163.0 |
| Ontario..... | 573.0 | 1,446.9 | 515.2 | 1,222.3 |
| Prairie Provinces..... | 98.0 | 339.2 | 129.5 | 328.5 |
| British Columbia..... | 39.0 | 80.4 | 36.1 | 63.6 |
| Totals..... | 738.5 | 2,043.6 | 704.1 | 1,777.4 |

¹ Includes Maritime Provinces, for which insufficient information was reported.

Vegetables.—Estimates of acreage and production of commercial vegetables in Canada are prepared for all provinces except Newfoundland, Prince Edward Island and Saskatchewan. The Province of Ontario is the largest producer followed by Quebec and British Columbia. A wide variety of crops is grown in these three provinces while a somewhat smaller range of crops is produced in the Maritimes and the Prairie Provinces.

Canning, freezing and processing of vegetables are carried on in the important producing areas. The estimates in the following tables cover output of commercial growers only and do not include any acreages or production of vegetables grown for home use on farms or elsewhere. Except as otherwise provided for in footnotes, all statistics pertain to crops grown for the fresh market and for processing.

33.—Estimated Commercial Acreage of Vegetables by Province 1954-56

| Province | 1954 | 1955 | 1956 |
|----------------------------------|----------------|----------------|----------------|
| | acres | acres | acres |
| Nova Scotia ¹ | 3,780 | 4,230 | 3,720 |
| New Brunswick ¹ | 830 | 890 | 950 |
| Quebec..... | 46,050 | 53,870 | 52,440 |
| Ontario..... | 94,850 | 110,760 | 106,160 |
| Manitoba..... | 5,240 | 5,640 | 5,620 |
| Alberta..... | 8,800 | 8,710 | 10,890 |
| British Columbia..... | 14,910 | 14,380 | 17,860 |
| Totals..... | 174,460 | 198,480 | 197,640 |

¹ Acreages of peas in New Brunswick are included in Nova Scotia figure, which also includes Prince Edward Island acreages for 1955 and 1956.

34.—Estimated Commercial Acreage and Production of Vegetables 1954-56 with Average for 1949-53

| Vegetable | Av. 1949-53 | | 1954 | | 1955 | | 1956 | |
|--------------------------|-------------|------------|--------|------------|--------|------------|--------|------------|
| | Area | Production | Area | Production | Area | Production | Area | Production |
| | acres | '000 lb. | acres | '000 lb. | acres | '000 lb. | acres | '000 lb. |
| Asparagus..... | 2,600 | 5,788 | 3,530 | 6,206 | 3,680 | 7,228 | 3,770 | 7,187 |
| Beans ¹ | 8,100 | 38,789 | 8,920 | 39,413 | 9,580 | 34,810 | 9,180 | 38,485 |
| Beets..... | 3,010 | 49,707 | 3,400 | 49,966 | 3,570 | 48,442 | 3,770 | 54,282 |
| Cabbage..... | 6,740 | 116,871 | 6,200 | 107,512 | 6,570 | 97,757 | 6,930 | 123,707 |
| Carrots..... | 7,810 | 142,105 | 8,000 | 136,747 | 8,560 | 152,578 | 8,720 | 166,116 |
| Cauliflower..... | 2,560 | 28,737 | 2,440 | 25,498 | 2,420 | 24,157 | 2,590 | 24,311 |
| Celery..... | 2,250 | 54,569 | 2,600 | 55,141 | 2,450 | 55,785 | 2,430 | 45,036 |
| Corn ² | 50,830 | 239,884 | 39,380 | 211,608 | 44,620 | 252,820 | 44,390 | 216,074 |
| Lettuce..... | 4,640 | 61,185 | 5,750 | 76,844 | 5,010 | 54,535 | 4,840 | 48,565 |
| Onions..... | 6,950 | 129,678 | 6,210 | 110,305 | 6,040 | 117,904 | 5,870 | 99,701 |
| Peas ³ | 39,320 | 83,749 | 47,590 | 87,990 | 59,160 | 116,985 | 54,280 | 101,945 |
| Spinach..... | 1,430 | 13,611 | 1,430 | 12,895 | 1,230 | 13,347 | 1,130 | 13,056 |
| Tomatoes..... | 48,390 | 642,049 | 39,010 | 569,728 | 45,590 | 698,385 | 49,740 | 594,629 |

¹ Estimates apply only to that portion of the crop grown for processing in Manitoba in 1953; Ontario, Manitoba and Alberta in 1954; Quebec, Ontario, Manitoba and Alberta in 1955 and 1956.

² Estimates apply only to that portion of the crop grown for processing in Manitoba in 1953; Ontario and Manitoba in 1954; Quebec and Manitoba in 1955 and 1956.

³ Estimates apply only to that portion of the crop grown for processing in Ontario and Manitoba in 1953; Ontario, Manitoba and Alberta in 1954; and all provinces except British Columbia in 1955 and 1956.

Subsection 8.—Special Crops

Tobacco.—The chief tobacco growing area of Canada is located in southern Ontario in the counties adjacent to Lake Erie. Most of the cigarette tobacco comes from this district. In Ontario in 1956, 111,400 acres of flue-cured or Bright Virginia type tobacco and 4,496 acres of Burley tobacco were harvested. These are the most important types grown in Canada though dark air-cured and fire-cured tobacco as well as cigar tobacco are grown on a limited scale. The only other important production comes from Quebec. In 1956, 6,139 acres of flue-cured tobacco, 3,235 acres of cigar tobacco and 1,917 acres of pipe tobacco were harvested in that Province.

A study of Department of National Revenue reports on tax-paid withdrawals of tobacco products reveals changes in the smoking habits of Canadians during the past three decades. In 1922, the first year for which comparable figures are available, Canadian per capita consumption of cigarettes was 229, cigars 20, cut tobacco 1.3 lb., plug tobacco 1.1 lb. and snuff about 1.3 oz. By 1956 the annual per capita consumption of cigarettes had increased to 1,678, cigars had dropped to 15.9, cut tobacco went up to 1.6 lb. in 1954 but declined to 1.3 lb. in 1956 and plug tobacco declined considerably in 1956.

**35.—Acreage, Production and Value of the Commercial Crop of Leaf Tobacco by Province
1954-56 with Average for 1949-53**

| Year | Quebec | | | Ontario | | | British Columbia | | |
|--------------|------------------------|-----------------|-----------|------------------------|-----------------|------------|------------------------|-----------------|--------|
| | Har- vested Area | Pro- duction | Value | Har- vested Area | Pro- duction | Value | Har- vested Area | Pro- duction | Value |
| | acres | '000 lb. | \$ | acres | '000 lb. | \$ | acres | '000 lb. | \$ |
| Av. 1949-53. | 9,010 | 8,885 | 2,655,000 | 95,404 | 129,558 | 55,174,800 | 103 | 120 | 45,000 |
| 1954..... | 10,863 | 11,110 | 3,579,000 | 120,804 | 173,569 | 74,174,000 | 88 | 84 | 35,000 |
| 1955..... | 12,987 | 13,766 | 4,117,000 | 96,833 | 120,981 | 53,531,000 | 89 | 93 | 37,000 |
| 1956..... | 11,291 | 10,783 | 3,368,000 | 116,356 | 159,396 | 72,604,000 | 75 | 99 | 40,000 |

**36.—Acreage, Production and Value of the Commercial Crop of Leaf Tobacco
by Main Type 1954-56 with Average for 1949-53**

| Type of Tobacco and Year | Harvested Area | Average Yield per Acre | Total Production | Average Farm Price per lb. | Gross Farm Value |
|---|-------------------|---------------------------------|---------------------|-------------------------------------|---------------------|
| | acres | lb. | lb. | cts. | \$ |
| Flue-cured.....Av. 1949-53 | 95,190 | 1,330 | 126,648,000 | 43.2 | 54,735,000 |
| 1954 | 122,815 | 1,410 | 173,159,000 | 43.1 | 74,777,000 |
| 1955 | 98,311 | 1,202 | 118,206,000 | 45.3 | 53,535,000 |
| 1956 | 117,614 | 1,339 | 157,480,000 | 46.1 | 72,611,000 |
| Burley.....Av. 1949-53 | 4,204 | 1,369 | 5,756,000 | 30.3 | 1,745,000 |
| 1954 | 3,122 | 1,431 | 4,470,000 | 30.2 | 1,353,000 |
| 1955 | 4,033 | 1,737 | 7,005,000 | 30.1 | 2,109,000 |
| 1956 | 4,496 | 1,563 | 7,028,000 | 31.4 | 2,210,000 |
| Cigar leaf.....Av. 1949-53 | 2,990 | 1,209 | 3,616,000 | 22.9 | 827,000 |
| 1954 | 3,781 | 1,280 | 4,840,000 | 23.2 | 1,125,000 |
| 1955 | 4,570 | 1,279 | 5,846,000 | 20.5 | 1,199,000 |
| 1956 | 3,235 | 1,050 | 3,397,000 | 19.9 | 676,000 |
| Totals¹.....Av. 1949-53 | 104,512 | 1,326 | 138,564,000 | 41.8 | 57,874,000 |
| 1954 | 131,755 | 1,402 | 184,763,000 | 42.1 | 77,788,000 |
| 1955 | 109,909 | 1,227 | 134,840,000 | 42.8 | 57,685,000 |
| 1956 | 127,722 | 1,333 | 170,278,000 | 44.6 | 76,012,000 |

¹ Includes other types not specified.

Sugar Beets and Beetroot Sugar.—Sugar beets are grown commercially in Quebec, Ontario, Manitoba and Alberta and beet sugar factories are located in these provinces. In Quebec, commercial production centres in the St. Hilaire area of the Eastern Townships, where operations started in 1944. The sugar beet industry of Ontario is largely confined to the southwestern section of the Province and factories are located at Wallaceburg and Chatham.

Processing of sugar beets in Manitoba began in 1940. In Alberta, where the industry has shown steady growth, sugar beets are produced under irrigation with yields averaging above those received in the other provinces.

37.—Acreage, Yield and Value of Sugar Beets and Quantity and Value of Refined Beetroot Sugar Produced 1954-56 with Average for 1949-53

| Year | Sugar Beets | | | | | Refined Beetroot Sugar Produced | | |
|-------------------------|----------------|----------------|-------------|-----------------------|-------------------------|---------------------------------|------------|---------------|
| | Harvested Area | Yield per Acre | Total Yield | Average Price per Ton | Total Value | Quantity | Value | Price per lb. |
| | acres | tons | tons | \$ | \$ | lb. | \$ | cts. |
| Av. 1949-53..... | 90,634 | 10.73 | 972,649 | 14.81 | 14,408,000 | 263,302,843 | 25,701,756 | 9.76 |
| 1954 ^a | 90,453 | 11.10 | 1,003,869 | 12.06 | 12,107,000 | 232,074,736 | 20,170,474 | 8.69 |
| 1955..... | 81,908 | 11.98 | 981,014 | 13.42 | 13,170,000 | 274,516,924 | 23,348,325 | 8.51 |
| 1956..... | 78,878 | 11.32 | 892,955 | 14.82 ^b | 13,230,000 ^b | 246,621,644 | 21,505,407 | 8.72 |

Apiculture.—Honey is produced commercially in all provinces of Canada except Newfoundland, Ontario being the largest producer. There is a considerable movement of honey from the Prairie Provinces to other parts of Canada. In recent years exports have been small, the United States being the most important external market.

Honey statistics have been compiled on an all-Canada basis since 1924 and show that the largest recorded crop was in 1948 when 45,145,000 lb. were produced. Production in 1956 was 24,272,000 lb.

In order to facilitate storage, shipment and uniformity of quality, considerable quantities of Canadian honey are pasteurized. Beekeepers' marketing co-operatives are active in several provinces. Bees are kept in some of the fruit growing and greenhouse districts of the country chiefly for purposes of pollination.

38.—Beekeepers and Bee Colonies, Production and Value of Honey and Beeswax 1954-56 with Average for 1949-53

| Year | Beekeepers | Bee Colonies | Honey | | | | Beeswax | | Value of Honey and Wax |
|-------------------------|------------|--------------|-----------------------------|------------------|------------------------------------|-------------|------------|---------|------------------------|
| | | | Average Production per Hive | Total Production | Average Price per lb. to Producers | Total Value | Production | Value | |
| | No. | No. | lb. | lb. | cts. | \$ | lb. | \$ | \$ |
| Av. 1949-53 | 19,370 | 407,300 | 78 | 31,671,000 | 15 | 4,741,000 | 467,000 | 207,000 | 4,949,000 |
| 1954 ^a | 14,890 | 339,400 | 58 | 19,850,000 | 17 | 3,418,000 | 282,000 | 125,000 | 3,543,000 |
| 1955..... | 14,150 | 323,600 | 77 | 25,031,000 | 18 | 4,399,000 | 367,000 | 178,000 | 4,577,000 |
| 1956..... | 14,410 | 330,000 | 74 | 24,272,000 | 18 | 4,419,000 | 355,000 | 180,000 | 4,599,000 |

39.—Honey Production by Province 1954-56 with Average for 1949-53

| Province | Av. 1949-53 | 1954 | 1955 | 1956 |
|---------------------------|---------------|---------------------------|---------------|---------------|
| | '000 lb. | '000 lb. | '000 lb. | '000 lb. |
| Newfoundland..... | .. 68 | .. 69 | .. 66 | .. 92 |
| Prince Edward Island..... | 118 | 125 | 134 | 161 |
| Nova Scotia..... | 128 | 92 | 86 | 101 |
| New Brunswick..... | 3,833 | 3,874 | 3,717 | 2,941 |
| Quebec..... | 12,567 | 6,012 | 7,119 | 6,372 |
| Ontario..... | 5,013 | 4,163 ^a | 5,057 | 5,000 |
| Manitoba..... | 4,046 | 1,825 | 3,271 | 3,348 |
| Saskatchewan..... | 4,787 | 2,636 | 4,611 | 4,724 |
| Alberta..... | 1,111 | 1,054 | 970 | 1,533 |
| British Columbia..... | | | | |
| Totals..... | 31,671 | 19,850^a | 25,031 | 24,272 |

Maple Sugar and Syrup.—Maple syrup is produced in the Provinces of Nova Scotia, New Brunswick, Quebec and Ontario. The bulk of the crop comes from the Eastern Townships of Quebec, a district famous both in Canada and the United States as the centre of the maple products industry. Virtually all of the maple products exported are sent to the United States with the larger proportion moving as sugar, although substantial quantities of syrup are also shipped.

Much of the syrup sold in Canada is marketed in one gallon cans direct to the consumer from the producer but a considerable amount of both sugar and syrup is sold each year to processing firms.

40.—Estimated Production of Maple Sugar and Maple Syrup by Province 1954-56 with Average for 1949-53

| Province and Year | Maple Sugar | | | Maple Syrup | | | Total Value, Sugar and Syrup |
|--------------------------------|-------------|-----------------------|---------|-------------|------------------------|------------|------------------------------|
| | Quantity | Average Price per lb. | Value | Quantity | Average Price per gal. | Value | |
| | lb. | cts. | \$ | gal. | \$ | \$ | \$ |
| Nova Scotia— | | | | | | | |
| Av. 1949-53 ¹ | 12,000 | 50.0 | 6,000 | 5,000 | 4.00 | 21,000 | 27,000 |
| 1954..... | 14,000 | 56.0 | 8,000 | 4,000 | 4.34 | 17,000 | 25,000 |
| 1955..... | 12,000 | 57.0 | 7,000 | 5,000 | 4.70 | 24,000 | 31,000 |
| 1956..... | 8,000 | 65.0 | 5,000 | 3,000 | 5.57 | 17,000 | 22,000 |
| New Brunswick— | | | | | | | |
| Av. 1949-53 ¹ | 82,000 | 46.0 | 38,000 | 10,000 | 4.27 | 41,000 | 79,000 |
| 1954..... | 32,000 | 56.0 | 18,000 | 11,000 | 4.60 | 51,000 | 69,000 |
| 1955..... | 88,000 | 52.0 | 46,000 | 11,000 | 4.72 | 52,000 | 98,000 |
| 1956..... | 37,000 | 58.0 | 21,000 | 10,000 | 5.06 | 51,000 | 72,000 |
| Quebec— | | | | | | | |
| Av. 1949-53 ¹ | 1,626,000 | 39.0 | 630,000 | 2,076,000 | 3.50 | 7,267,000 | 7,897,000 |
| 1954..... | 1,110,000 | 44.0 | 488,000 | 2,025,000 | 4.60 | 9,315,000 | 9,803,000 |
| 1955..... | 735,000 | 52.0 | 382,000 | 1,913,000 | 4.91 | 9,393,000 | 9,775,000 |
| 1956..... | 535,000 | 43.0 | 230,000 | 2,335,000 | 3.57 | 8,336,000 | 8,566,000 |
| Ontario— | | | | | | | |
| Av. 1949-53 ¹ | 30,000 | 43.0 | 13,000 | 373,000 | 4.14 | 1,544,000 | 1,557,000 |
| 1954..... | 19,000 | 56.0 | 11,000 | 264,000 | 4.28 | 1,130,000 | 1,141,000 |
| 1955..... | 12,000 | 52.0 | 6,000 | 217,000 | 4.48 | 972,000 | 978,000 |
| 1956..... | 6,000 | 65.0 | 4,000 | 270,000 | 4.71 | 1,272,000 | 1,276,000 |
| Totals— | | | | | | | |
| Av. 1949-53 ¹ | 1,749,000 | 39.2 | 686,000 | 2,464,000 | 3.60 | 8,873,000 | 9,560,000 |
| 1954..... | 1,175,000 | 44.7 | 525,000 | 2,304,000 | 4.58 | 10,513,000 | 11,038,000 |
| 1955..... | 847,000 | 52.1 | 441,000 | 2,146,000 | 4.87 | 10,441,000 | 10,882,000 |
| 1956..... | 586,000 | 44.4 | 260,000 | 2,618,000 | 3.70 | 9,676,000 | 9,936,000 |

¹ Five-year average prices are derived from actual figures but quantities and values are rounded to the nearest thousand.

Fibre Flax.—The demand for fibre flax was heavy during World War II when exports increased to many times the prewar volume. After the War however exports of fibre flax to Canada's principal market, the United Kingdom, dropped sharply and acreage devoted to this crop decreased.

41.—Acreage, Yield and Value of Fibre Flax, Seed and Fibre, 1953-56 with Average for 1948-52

| Year | Area | Production | | Values | | |
|------------------|-------|------------|-----------|---------|---------|---------|
| | | Seed | Fibre | Seed | Fibre | Total |
| | acres | bu. | lb. | \$ | \$ | \$ |
| Av. 1948-52..... | 8,185 | 38,000 | 2,145,000 | 191,000 | 497,000 | 688,000 |
| 1953..... | 3,000 | 25,000 | 666,000 | 68,000 | 96,000 | 164,000 |
| 1954..... | 2,000 | 7,000 | 442,000 | 23,000 | 76,000 | 99,000 |
| 1955..... | 3,000 | 10,000 | 520,000 | 36,000 | 77,000 | 113,000 |
| 1956..... | 3,000 | 8,000 | 50,900 | 19,000 | 105,000 | 124,000 |

Subsection 9.—Prices of Agricultural Produce

The monthly index of farm prices of agricultural products was designed to measure changes occurring in the average prices farmers receive at the farm from the sale of farm products. In comparing current index numbers with those before August 1954 certain points should be considered. Western grain prices used in the construction of the index before Aug. 1, 1954, are final prices for all grains. Since Aug. 1, 1954, only initial prices are available for western wheat and only initial prices plus interim payments for western oats and barley. Any subsequent participation payments made on the 1954 crops will be added to the prices currently used and the index revised upward accordingly.

42.—Average Index Numbers of Farm Prices of Agricultural Products by Province 1945-54 and by Month 1955 and 1956

(1935-39=100)

NOTE.—A description of this index, its coverage and the methods used will be found in *DBS Quarterly Bulletin of Agricultural Statistics* for October-December 1946.

| Year and Month | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Total |
|--------------------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1945 Averages..... | 196.7 | 180.8 | 195.3 | 179.5 | 174.6 | 188.4 | 192.6 | 196.2 | 187.8 | 185.7 |
| 1946 Averages..... | 194.2 | 191.2 | 207.7 | 196.9 | 187.9 | 209.4 | 217.3 | 219.9 | 199.2 | 204.1 |
| 1947 Averages..... | 180.1 | 184.9 | 199.6 | 213.7 | 202.1 | 225.9 | 226.1 | 231.9 | 207.1 | 215.8 |
| 1948 Averages..... | 236.6 | 214.1 | 250.3 | 265.6 | 258.6 | 259.6 | 247.1 | 262.9 | 240.2 | 255.8 |
| 1949 Averages..... | 204.1 | 210.5 | 220.5 | 261.3 | 257.8 | 262.8 | 248.8 | 265.6 | 245.1 | 255.4 |
| 1950 Averages..... | 189.6 | 206.5 | 216.8 | 260.9 | 265.1 | 274.4 | 251.5 | 276.2 | 244.3 | 260.8 |
| 1951 Averages..... | 236.4 | 243.2 | 250.8 | 305.6 | 315.0 | 301.6 | 268.7 | 308.0 | 287.1 | 296.8 |
| 1952 Averages..... | 351.6 | 275.1 | 344.5 | 290.2 | 286.2 | 266.8 | 245.9 | 265.3 | 291.4 | 274.4 |
| 1953 Averages..... | 191.5 | 234.8 | 213.2 | 272.1 | 263.8 | 245.3 | 228.7 | 247.8 | 265.7 | 250.4 |
| 1954 Averages..... | 196.1 | 230.2 | 211.8 | 264.3 | 252.8 | 227.5 | 208.7 | 232.4 | 249.6 | 236.8 |
| 1955 | | | | | | | | | | |
| January..... | 213.4 | 225.9 | 218.9 | 262.5 | 246.3 | 221.0 | 195.3 | 219.1 | 248.7 | 228.9 |
| February..... | 225.8 | 226.2 | 221.7 | 263.4 | 246.2 | 223.6 | 196.8 | 221.7 | 246.5 | 230.1 |
| March..... | 223.4 | 228.3 | 226.0 | 263.2 | 245.4 | 220.1 | 195.7 | 218.0 | 247.6 | 228.8 |
| April..... | 362.7 | 255.9 | 315.6 | 266.7 | 253.0 | 220.8 | 195.4 | 220.3 | 244.4 | 235.7 |
| May..... | 301.0 | 261.0 | 291.3 | 270.4 | 254.1 | 223.2 | 198.4 | 221.3 | 250.5 | 236.7 |
| June..... | 243.0 | 245.2 | 262.5 | 270.9 | 256.1 | 226.4 | 199.5 | 224.2 | 255.0 | 237.0 |
| July..... | 241.1 | 233.7 | 247.4 | 267.9 | 256.6 | 226.3 | 201.0 | 225.6 | 257.4 | 236.9 |
| August..... | 201.2 | 217.1 | 201.5 | 262.7 | 254.3 | 230.2 | 205.5 | 228.9 | 254.8 | 235.7 |
| September..... | 169.4 | 189.1 | 180.8 | 259.3 | 250.4 | 231.7 | 215.8 | 231.7 | 244.6 | 235.2 |
| October..... | 150.6 | 186.4 | 176.4 | 250.4 | 244.3 | 228.9 | 212.3 | 224.7 | 242.5 | 229.6 |
| November..... | 155.8 | 185.1 | 186.4 | 250.2 | 243.0 | 227.1 | 213.4 | 222.5 | 245.4 | 229.1 |
| December..... | 159.9 | 185.5 | 184.0 | 252.6 | 240.8 | 227.5 | 213.2 | 220.9 | 244.0 | 228.4 |
| 1955 Averages..... | 220.6 | 220.0 | 226.0 | 261.7 | 249.2 | 225.6 | 203.5 | 223.2 | 248.4 | 232.7 |

42.—Average Index Numbers of Farm Prices of Agricultural Products by Province 1945-54 and by Month 1955 and 1956—concluded

| Year and Month | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Total |
|---------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1956 | | | | | | | | | | |
| January..... | 168.3 | 185.0 | 198.2 | 252.3 | 238.8 | 225.7 | 211.5 | 216.9 | 244.3 | 226.9 |
| February..... | 170.6 | 189.6 | 197.0 | 253.3 | 237.7 | 227.4 | 210.7 | 218.8 | 244.1 | 227.1 |
| March..... | 183.9 | 193.1 | 209.1 | 249.4 | 238.7 | 227.0 | 210.8 | 221.1 | 242.9 | 227.8 |
| April..... | 230.8 | 198.2 | 229.1 | 250.0 | 240.0 | 226.9 | 211.0 | 220.6 | 244.6 | 229.3 |
| May..... | 320.0 | 213.2 | 269.1 | 254.8 | 242.2 | 229.5 | 211.7 | 224.0 | 246.1 | 233.7 |
| June..... | 312.2 | 222.0 | 289.7 | 264.0 | 256.0 | 232.2 | 215.5 | 230.0 | 250.8 | 241.8 |
| July..... | 424.4 | 227.0 | 312.8 | 269.7 | 263.1 | 235.6 | 216.7 | 232.5 | 263.8 | 247.9 |
| August..... | 279.5 | 209.9 | 259.6 | 258.9 | 259.2 | 217.6 | 194.1 | 213.9 | 251.6 | 232.1 |
| September..... | 191.4 | 208.5 | 208.1 | 256.8 | 258.5 | 216.4 | 191.8 | 213.7 | 259.6 | 229.3 |
| October..... | 189.3 | 213.3 | 201.3 | 258.0 | 261.1 | 209.0 | 184.0 | 210.4 | 266.5 | 227.5 |
| November..... | 204.6 | 212.2 | 222.4 | 260.0 | 259.2 | 205.5 | 180.1 | 204.8 | 258.8 | 225.3 |
| December..... | 215.0 | 214.0 | 223.9 | 263.8 | 256.3 | 206.6 | 180.0 | 204.9 | 258.1 | 225.1 |
| 1956 Averages..... | 240.8 | 207.2 | 235.0 | 257.6 | 250.9 | 221.6 | 201.5 | 217.6 | 252.6 | 231.2 |

Monthly prices of grain and monthly prices of livestock are shown in *DBS Quarterly Bulletin of Agricultural Statistics*.

43.—Yearly Average Cash Prices per Bushel of Canadian Cereals—Basis, in Store at Fort William and Port Arthur, Ont.—Crop Years Ended July 31, 1947-56

NOTE.—Statistics for 1926-46 are given in the corresponding tables of previous editions of the Year Book.

| Year Ended July 31— | Averages in Cents and Eighths per Bushel | | | | |
|---------------------|--|----------------------------------|--|---------------------------------|--------------------------------------|
| | Wheat, ¹ No. 1 N. | Oats, ² No. 2 C.W. | Barley, ² No. 2 C.W. —6 Row | Rye, ³ No. 2 C.W. | Flaxseed, ³ No. 1 C.W. |
| | cts. | cts. | cts. | cts. | cts. |
| 1947..... | 183/3 | 66/2 | 93/4 | 287/6 | 325 ⁴ |
| 1948..... | 183/3 | 90 | 119/7 | 374/5 | 550 ⁵ |
| 1949..... | 183/3 | 78/1 | 124/3 | 140 | 403/1 ⁶ |
| 1950..... | 183/3 | 90/4 | 158/7 | 146 | 371/6 |
| 1951..... | 185/6 ⁷ | 95/4 | 147/4 | 184/5 | 441/4 |
| 1952..... | 183/5 ⁷ | 90/6 | 132/5 | 193/5 | 428/1 |
| 1953..... | 181/7 ⁷ | 79/7 | 133/5 | 158/2 | 329 ⁷ |
| 1954..... | 156/3 | 72/7 | 108/1 | 99/1 | 283/6 |
| 1955..... | 165/1 | 89/5 | 123/4 | 112/2 | 309/1 |
| 1956..... | 160/5 | 82/7 | 116/5 | 110/1 | 360/1 |

¹ Initial payments plus additional payments to producers.

² Based on cash closing prices, Winnipeg Grain Exchange. From Aug. 1, 1944 to Oct. 22, 1947 prices of oats and barley remained at or near the government-imposed ceiling prices. From Oct. 23, 1947 to July 31, 1949 open market trading again prevailed. Equalization payments to producers are included for the crop years 1944-45 to 1947-48, inclusive.

³ Average cash closing price, Winnipeg Grain Exchange, except where otherwise noted.

⁴ Fixed price to growers.

⁵ \$5 fixed price to growers plus 50 cents participation payment.

⁶ Winnipeg Grain Exchange renewed trading in flaxseed cash and futures on Aug. 16, 1948. The Canadian Wheat Board was authorized to buy all flaxseed offered to it during the 1948-49 crop year on the basis of \$4 per bushel for No. 1 C.W. in store Fort William-Port Arthur, Ont.

44.—Yearly Average Prices per 100 lb. of Canadian Livestock at Principal Markets 1953-56

| Item | Toronto | | | | Montreal | | | |
|--|---------|-------|-------|-------|----------|-------|-------|-------|
| | 1953 | 1954 | 1955 | 1956 | 1953 | 1954 | 1955 | 1956 |
| | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| Steers, up to 1,000 lb., good..... | 20.25 | 19.25 | 19.60 | 18.80 | 20.39 | 20.10 | 20.20 | 18.95 |
| Steers, up to 1,000 lb., medium..... | 18.74 | 17.87 | 17.56 | 17.35 | 18.60 | 17.67 | 17.61 | 17.20 |
| Steers, up to 1,000 lb., common..... | 15.53 | 14.67 | 13.46 | 14.09 | 14.00 | 14.26 | 14.25 | 13.89 |
| Steers, over 1,000 lb., good..... | 20.11 | 19.34 | 19.60 | 19.07 | 20.38 | 20.12 | 20.23 | 19.56 |
| Steers, over 1,000 lb., medium..... | 18.55 | 17.99 | 17.53 | 17.37 | 18.47 | 18.13 | 18.04 | 17.61 |
| Steers, over 1,000 lb., common..... | 16.07 | 15.08 | 13.61 | 14.00 | 14.39 | 15.14 | 14.86 | 14.30 |
| Heifers, good..... | 19.82 | 17.17 | 17.67 | 16.88 | 17.03 | 16.17 | 17.10 | 16.29 |
| Heifers, medium..... | 18.17 | 16.11 | 15.88 | 15.67 | 15.55 | 13.87 | 14.37 | 13.88 |
| Calves, fed, good..... | 20.86 | 19.77 | 20.13 | 19.89 | 20.94 | 19.81 | 20.04 | 19.26 |
| Calves, fed, medium..... | 18.95 | 18.42 | 18.15 | 17.84 | 15.72 | 17.05 | 16.99 | 16.23 |
| Cows, good..... | 13.12 | 12.01 | 12.00 | 11.90 | 13.63 | 12.12 | 12.90 | 12.40 |
| Cows, medium..... | 12.27 | 11.10 | 11.79 | 11.12 | 11.81 | 10.52 | 11.27 | 11.01 |
| Bulls, good..... | 13.89 | 13.10 | 13.37 | 13.31 | 14.46 | 13.05 | 13.22 | 13.42 |
| Stocker and feeder steers, good..... | 19.35 | 18.30 | 18.75 | 18.20 | 20.50 | 18.00 | 17.36 | |
| Stocker and feeder steers, common..... | 16.04 | 15.79 | 16.30 | 16.02 | 17.16 | 16.50 | 1 | 16.00 |
| Stock cows and heifers, good..... | 1 | 1 | 1 | 1 | 16.93 | 1 | 1 | 1 |
| Stock cows and heifers, common..... | 11.56 | 1 | 1 | 1 | 12.00 | 1 | 1 | 1 |
| Calves, veal, good and choice..... | 24.62 | 23.78 | 23.80 | 24.40 | 23.30 | 21.23 | 20.70 | 21.40 |
| Calves, veal, common and medium..... | 19.33 | 18.10 | 17.83 | 17.88 | 19.13 | 17.28 | 17.18 | 16.97 |
| Hogs, Grade B-1, dressed..... | 30.40 | 30.90 | 25.05 | 26.50 | 30.90 | 31.05 | 25.30 | 25.60 |
| Lambs, good..... | 23.37 | 21.60 | 20.40 | 22.05 | 22.73 | 20.38 | 19.15 | 19.55 |
| Lambs, common..... | 18.63 | 17.35 | 16.93 | 17.50 | 17.12 | 14.94 | 15.71 | 15.63 |
| Sheep, good..... | 9.52 | 9.03 | 8.37 | 8.62 | 8.95 | 9.43 | 9.75 | 8.48 |

| Item | Winnipeg | | | | Edmonton | | | |
|--|----------|-------|-------|-------|----------|-------|-------|-------|
| | 1953 | 1954 | 1955 | 1956 | 1953 | 1954 | 1955 | 1956 |
| | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| Steers, up to 1,000 lb., good..... | 18.25 | 17.45 | 18.45 | 17.80 | 18.42 | 17.70 | 17.85 | 17.00 |
| Steers, up to 1,000 lb., medium..... | 16.03 | 15.12 | 16.25 | 15.82 | 16.69 | 15.91 | 16.35 | 15.54 |
| Steers, up to 1,000 lb., common..... | 12.87 | 11.85 | 12.57 | 12.73 | 12.30 | 12.44 | 12.34 | 11.80 |
| Steers, over 1,000 lb., good..... | 18.02 | 17.55 | 18.45 | 18.02 | 18.14 | 17.45 | 17.84 | 16.85 |
| Steers, over 1,000 lb., medium..... | 15.57 | 15.01 | 15.98 | 16.29 | 16.57 | 15.85 | 16.33 | 15.63 |
| Steers, over 1,000 lb., common..... | 12.47 | 11.85 | 12.45 | 13.54 | 13.18 | 13.15 | 14.02 | 13.33 |
| Heifers, good..... | 15.81 | 14.21 | 15.82 | 15.64 | 16.62 | 15.02 | 15.42 | 14.91 |
| Heifers, medium..... | 13.51 | 11.87 | 13.55 | 13.47 | 14.76 | 13.45 | 13.76 | 12.86 |
| Calves, fed, good..... | 18.78 | 17.52 | 18.13 | 17.87 | 17.99 | 16.83 | 17.34 | 16.58 |
| Calves, fed, medium..... | 16.18 | 15.29 | 16.21 | 16.48 | 16.84 | 15.60 | 16.25 | 15.22 |
| Cows, good..... | 11.48 | 10.64 | 11.85 | 10.96 | 11.28 | 10.27 | 11.05 | 10.05 |
| Cows, medium..... | 9.86 | 9.25 | 10.02 | 9.69 | 9.45 | 9.11 | 9.86 | 9.15 |
| Bulls, good..... | 12.30 | 11.33 | 11.73 | 11.01 | 11.77 | 11.23 | 11.40 | 10.67 |
| Stocker and feeder steers, good..... | 15.01 | 15.15 | 16.05 | 16.20 | 15.54 | 14.95 | 15.53 | 15.10 |
| Stocker and feeder steers, common..... | 11.05 | 10.50 | 12.39 | 12.81 | 11.92 | 11.70 | 12.33 | 12.51 |
| Stock cows and heifers, good..... | 12.47 | 11.60 | 12.23 | 11.54 | 12.50 | 10.85 | 11.19 | 10.86 |
| Stock cows and heifers, common..... | 9.17 | 8.06 | 9.13 | 9.35 | 9.09 | 7.88 | 8.43 | 8.13 |
| Calves, veal, good and choice..... | 22.68 | 21.85 | 23.30 | 23.20 | 22.86 | 19.90 | 20.75 | 18.90 |
| Calves, veal, common and medium..... | 15.73 | 14.65 | 16.47 | 16.02 | 14.87 | 13.23 | 13.52 | 13.31 |
| Hogs, Grade B-1, dressed..... | 27.40 | 27.85 | 22.05 | 23.40 | 28.78 | 28.05 | 22.20 | 23.40 |
| Lambs, good..... | 19.85 | 18.45 | 17.60 | 18.25 | 20.19 | 18.95 | 17.70 | 18.25 |
| Lambs, common..... | 15.27 | 13.75 | 14.17 | 13.74 | 17.13 | 15.67 | 16.00 | 15.81 |
| Sheep, good..... | 5.32 | 4.63 | 4.56 | 4.65 | 9.41 | 9.43 | 8.28 | 8.07 |

¹ No sales reported.

Subsection 10.—Food Consumption

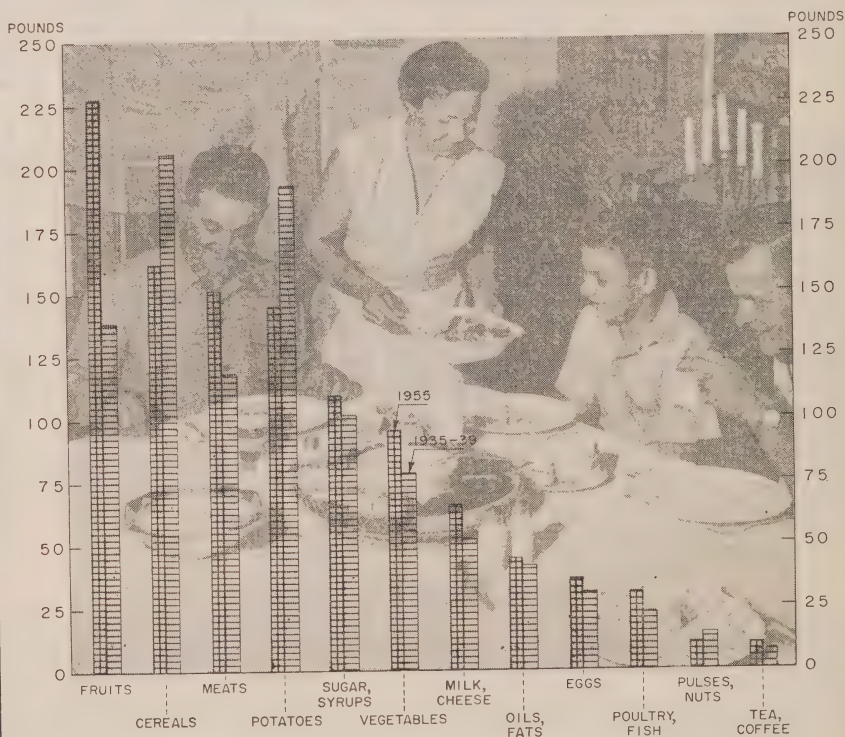
Consumption of Major Foods.—A study of consumption of the major foods was undertaken during World War II by the Dominion Bureau of Statistics in recognition of the national and international significance of such information. Though data on total consumption of certain commodities such as wheat, alcoholic beverages, meats, etc., have been available for a considerable period, it was found necessary to establish a per capita level of consumption of a wide range of products on a comparable basis.

The figures represent available supplies, including production and imports, adjusted for change of stocks, exports, marketing losses and industrial uses. All calculations have been made at the retail stage of distribution, except for meats where the figures are worked out at the wholesale stage. The amount of food actually eaten would be somewhat lower than indicated because of losses and waste occurring after the products reached the hands of the consumer. It should also be pointed out that there are minor inaccuracies in certain of the figures since statistics of storage stocks in the hands of retailers and consumers were not available.

All basic foods have been classified under 13 main commodity groups. Totals for each group have been computed using common denominators for the group, for example: milk solids (dry weight) in the dairy products group; fat content for fats and oils; and fresh equivalent for fruits. All foods have been included in their basic form, that is, as flour, fat, sugar, etc., rather than in more highly manufactured forms.

The series in Table 45 represents the official estimates of yearly supplies of food moving into consumption, expressed in pounds per capita, for the years 1935-39 as an average for comparison with the years 1954, 1955 and 1956.

ANNUAL CONSUMPTION OF PRINCIPAL FOODS PER CAPITA, CANADA 1955
COMPARED WITH 1935-39 AVERAGE



45.—Per Capita Supplies of Food Moving into Consumption 1954-56 with Average for 1935-39

| Kind of Food and Weight Base | Pounds per Capita per Annum | | | | Percentages of 1935-39 Average | | |
|---|--------------------------------|-------------------------|-------------------------|-------------------------|-----------------------------------|--------------|--------------|
| | Average 1935-39 | 1954* | 1955 | 1956 | 1954* | 1955 | 1956 |
| Cereals Retail wt. | 205.7 | 166.1 | 161.0 | 163.3 | 80.7 | 78.3 | 79.4 |
| Flour (including rye flour) ¹ | 184.8 | 147.6 | 144.3 | 145.1 | 79.9 | 78.1 | 78.5 |
| Oatmeal and rolled oats..... | " 7.3 | 5.7 | 4.8 | 5.4 | 78.1 | 65.8 | 74.0 |
| Pot and pearl barley..... | " 0.3 | 0.3 | 0.2 | 0.2 | 100.0 | 66.7 | 66.7 |
| Corn meal and flour..... | " 1.4 | 0.5 | 0.7 | 0.8 | 35.7 | 50.0 | 57.1 |
| Buckwheat flour..... | " 0.2 | 0.1 | 0.1 | 0.1 | 50.0 | 50.0 | 50.0 |
| Rice..... | " 4.3 | 4.7 | 4.5 | 5.1 | 109.3 | 104.7 | 118.6 |
| Breakfast food..... | " 7.4 | 7.2 | 6.4 | 6.7 | 97.3 | 86.5 | 90.5 |
| Potatoes Retail wt. | 192.9 | 146.9 | 149.1 | 147.3 | 76.2 | 77.3 | 76.4 |
| Potatoes, white..... | 192.3 | 146.3 | 148.5 | 146.7 | 76.1 | 77.2 | 76.3 |
| Potatoes, sweet..... | " 0.6 | 0.6 | 0.6 | 0.6 | 100.0 | 100.0 | 100.0 |
| Sugars and Syrups Sugar content | 101.7 | 102.2 | 109.9 | 106.7 | 100.5 | 108.1 | 104.9 |
| Sugar..... | 94.7 | 96.3 | 99.0 | 99.4 | 101.7 | 104.5 | 105.0 |
| Maple sugar..... | " Retail wt. 1.8 | 0.9 | 0.8 | 0.9 | 50.0 | 44.4 | 50.0 |
| Other..... | " 8.2 | 7.9 | 15.7 | 10.4 | 96.3 | 191.5 | 126.8 |
| Starch Retail wt. | 2.5 | 1.6 | 1.6 | 1.6 | 64.0 | 64.0 | 64.0 |
| Pulses and Nuts Retail wt. | 14.5 | 9.8 | 10.5 | 10.6 | 67.6 | 72.4 | 73.1 |
| Dry beans..... | 3.7 | 3.0 ² | 4.0 ² | 4.1 ² | 81.1 | 108.1 | 110.8 |
| Dry peas..... | " 5.7 | 1.0 | 0.9 | 0.8 | 17.5 | 15.8 | 14.0 |
| Peanuts..... | " Shelled wt. 2.2 | 2.9 | 3.1 | 3.2 | 131.8 | 140.9 | 145.5 |
| Tree nuts..... | " 1.1 | 1.4 | 1.1 | 1.2 | 127.3 | 100.0 | 109.1 |
| Cocoa..... | " Green beans 3.7 | 3.2 | 3.0 | 2.8 | 86.5 | 81.1 | 75.7 |
| Fruit Fresh equiv. | 138.7 | 215.0 | 226.7 | 229.6 | 155.0 | 144.7 | 165.5 |
| Tomatoes and Citrus Fruit— | | | | | | | |
| Tomatoes, fresh..... | Retail wt. 15.4 | 19.5 | 19.0 | 18.5 | 126.6 | 123.4 | 120.1 |
| Tomato products..... | Net wt. canned 10.0 | 17.9 | 16.3 | 17.3 | 179.0 | 163.0 | 173.0 |
| Citrus fruit, fresh..... | Retail wt. 25.1 | 38.5 | 36.9 | 36.1 | 153.4 | 147.0 | 143.8 |
| Citrus fruit, canned..... | Net wt. canned 0.5 | 10.8 | 13.6 | 14.6 | 216.0 | 272.0 | 292.0 |
| Other fruit— | | | | | | | |
| Fresh..... | Retail wt. 40.5 | 59.0 | 70.7 | 71.3 | 145.7 | 174.6 | 176.0 |
| Canned..... | Net wt. canned 6.3 | 15.4 | 14.9 | 16.0 | 244.4 | 236.5 | 254.0 |
| Dried..... | Processed wt. 8.3 | 6.0 | 7.1 | 5.5 | 72.3 | 85.5 | 66.3 |
| Juice..... | Net wt. canned .. | 4.4 | 4.5 | 5.1 | .. | .. | .. |
| Frozen..... | Retail wt. 0.2 | 1.2 | 1.2 | 1.4 | 600.0 | 600.0 | 700.0 |
| Vegetables Fresh equiv. | 78.4 | 94.5 | 94.5 | 96.9 | 120.5 | 120.5 | 123.6 |
| Fresh— | | | | | | | |
| Cabbage and greens..... | Retail wt. 16.2 | 19.9 | 18.6 | 19.6 | 122.8 | 114.8 | 121.0 |
| Carrots..... | " 15.4 | 11.4 | 11.6 | 12.0 | 74.0 | 75.3 | 77.9 |
| Legumes..... | " 6.2 | 2.8 | 3.4 | 3.7 | 45.2 | 54.8 | 59.7 |
| Other..... | " 29.8 | 37.3 | 36.9 | 37.2 | 125.2 | 123.8 | 124.8 |
| Canned..... | Net wt. canned 10.8 | 18.8 | 19.3 | 19.0 | 174.1 | 178.7 | 175.9 |
| Frozen..... | Retail wt. .. | 1.4 | 1.7 | 1.9 | .. | .. | .. |
| Oils and Fats Fat content. | 41.4 | 44.6 | 44.3 | 44.5 | 107.7 | 107.0 | 107.5 |
| Margarine..... | Retail wt. .. | 7.6 | 8.1 | 7.7 | .. | .. | .. |
| Lard..... | " 3.9 | 8.3 | 8.7 | 8.8 | 212.8 | 223.1 | 225.6 |
| Shortening..... | " 10.6 | 10.2 | 9.7 | 9.7 | 96.2 | 91.5 | 91.5 |
| Salad and cooking oil..... | " 1.8 | 2.9 | 2.4 | 2.7 | 161.1 | 133.3 | 150.0 |
| Butter..... | " 31.0 | 20.7 | 20.6 | 20.8 | 66.8 | 66.5 | 67.1 |
| Eggs Fresh Egg equiv. | 30.7 | 36.6³ | 36.0³ | 36.9³ | 119.2 | 117.3 | 120.2 |
| Meat Carcass wt. | 118.1 | 148.1 | 151.4 | 154.1 | 125.4 | 128.2 | 130.5 |
| Pork..... | 39.8 | 53.7 | 57.9 | 58.3 | 134.9 | 145.5 | 146.5 |
| Beef..... | " 54.7 | 72.1 | 71.9 | 73.6 | 131.8 | 131.4 | 134.6 |
| Veal..... | " 10.5 | 10.1 | 8.8 | 8.9 | 96.2 | 83.8 | 84.8 |
| Mutton and lamb..... | " 5.6 | 2.5 | 2.8 | 2.7 | 44.6 | 50.0 | 48.2 |
| Offal..... | Edible wt. 5.8 | 5.3 | 5.8 | 5.7 | 91.4 | 100.0 | 98.3 |
| Canned meat..... | Net wt. canned 1.4 | 4.5 | 4.5 | 5.3 | 321.4 | 321.4 | 378.6 |

For footnotes, see end of table, p. 452.

45.—Per Capita Supplies of Food Moving into Consumption 1954-56 with Average for 1935-39—concluded

| Kind of Food and Weight Base | Pounds per Capita per Annum | | | | Percentages of 1935-39 Average | | |
|---|--------------------------------|--------------------|--------------------|--------------------|-----------------------------------|--------------|--------------|
| | Average 1935-39 | 1954 ^r | 1955 | 1956 | 1954 ^r | 1955 | 1956 |
| Poultry and Fish.....Edible wt. | 22.4 | 30.0 | 30.7 | 31.6 | 133.9 | 137.1 | 141.1 |
| Hens and chickens.....Retail wt. dressed | 15.6 | 22.6 ¹ | 23.5 ² | 24.4 ² | 144.9 | 150.6 | 156.4 |
| Other poultry....." | 2.8 | 6.1 ¹ | 6.2 ² | 7.2 ² | 217.9 | 221.4 | 257.1 |
| Fish and shellfish, fresh and frozen.....Edible wt. | 4 | 7.1 | 7.3 | 7.2 | 4 | 4 | 4 |
| Fish, cured (smoked, salted, pickled)....." | 4 | 1.9 | 1.8 | 1.7 | 4 | 4 | 4 |
| Fish and shellfish, canned.....Net wt. canned | 2.7 | 4.5 | 4.5 | 4.5 | 166.7 | 166.7 | 166.7 |
| Milk and Cheese.....Milk solids | 52.0 | 64.2 | 65.9 | 66.3 | 123.5 | 126.7 | 127.5 |
| Cheddar cheese ³Retail wt. | 3.7 | 5.5 | 5.8 | 5.3 | 148.6 | 156.8 | 143.2 |
| Other cheese....." | 0.2 | 0.9 | 0.9 | 1.1 | 450.0 | 450.0 | 550.0 |
| Cottage cheese....." | 0.2 | 0.8 | 0.9 | 1.1 | 400.0 | 450.0 | 550.0 |
| Evaporated whole milk....." | 0.1 | 18.2 | 18.5 | 18.6 | 298.4 | 303.3 | 304.9 |
| Condensed whole milk....." | 0.6 | 0.8 | 0.8 | 0.9 | 133.3 | 133.3 | 150.0 |
| Whole milk powder....." | 0.1 | 0.3 | 0.2 | 0.3 | 300.0 | 200.0 | 300.0 |
| Condensed skim milk....." | 0.4 | 0.3 | 0.3 | 0.2 | 75.0 | 75.0 | 50.0 |
| Skim milk powder....." | 1.8 | 4.7 | 5.2 | 5.1 | 261.1 | 288.9 | 283.3 |
| Evaporated skim milk....." | 0.1 | 0.8 | 0.6 | 0.5 | 800.0 | 600.0 | 500.0 |
| Condensed buttermilk....." | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 100.0 | 100.0 |
| Milk in ice cream....." | 10.9 | 32.0 | 35.3 | 35.1 | 293.6 | 323.9 | 322.0 |
| Powdered buttermilk....." | 0.2 | 0.4 | 0.4 | 0.5 | 200.0 | 200.0 | 250.0 |
| Fluid whole milk ⁴" | 408.5 | 405.2 ³ | 411.0 ⁴ | 415.1 ³ | 99.2 | 100.6 | 101.6 |
| Beverages.....Primary distribution wt. | 7.2 | 9.6 | 10.1 | 10.9 | 133.3 | 140.3 | 151.4 |
| Tea....." | 3.5 | 2.9 | 2.7 | 2.8 | 82.9 | 77.1 | 80.0 |
| Coffee.....Green beans | 3.7 | 6.7 | 7.4 | 8.1 | 181.1 | 200.0 | 218.9 |

¹ Fluctuations in apparent per capita flour consumption are partly caused by unavailability of complete data on flour inventories in all positions. ² Includes soybean flour. ³ Exclusive of Newfoundland.

⁴ Breakdown according to current classification not available. ⁵ Includes process cheese. ⁶ Includes cream expressed as milk.

Disappearance of Meats and Lard.—Production of meats from slaughter in Canada, total supply, distribution and per capita consumption of meats and lard are shown in Table 46. All estimates are on a carcass weight basis except canned meats which are in terms of product.

46.—Supply, Distribution and Consumption of Meats and Lard 1952-56 with Average for 1946-50

NOTE.—Figures for 1952-56 are subject to revision.

| Item | Average 1946-50 | 1952 | 1953 | 1954 ^r | 1955 | 1956 |
|--|--------------------|---------|-----------|-------------------|-----------|-----------|
| Beef— | | | | | | |
| Animals slaughtered in Canada.....'000 | 1,923.3 | 1,558.5 | 1,985.8 | 2,268.1 | 2,345.7 | 2,494.6 |
| Estimated dressed weight.....'000 lb. | 909,487 | 783,148 | 984,799 | 1,101,031 | 1,139,078 | 1,208,384 |
| On hand, Jan. 1....." | 34,650 | 19,497 | 32,961 | 33,103 | 23,648 | 29,682 |
| Imports....." | 3,554 | 9,289 | 11,537 | 18,521 | 20,098 | 18,266 |
| Totals, Supply....." | 947,691 | 811,934 | 1,029,297 | 1,152,655 | 1,182,824 | 1,256,332 |
| Exports....." | 101,672 | 68,072 | 28,920 | 22,580 | 12,787 | 18,874 |
| Used for canning....." | 39,108 | 9,199 | 9,651 | 11,625 | 18,197 | 20,713 |
| On hand, Dec. 31....." | 30,916 | 32,961 | 35,756 | 23,648 | 29,682 | 33,155 |
| TOTALS, CONSUMPTION....." | 775,995 | 701,702 | 954,970 | 1,094,802 | 1,122,158 | 1,183,590 |
| CONSUMPTION PER CAPITA.....lb. | 60.0 | 48.6 | 64.6 | 72.1 | 71.9 | 73.6 |

46.—Supply, Distribution and Consumption of Meats and Lard 1952-56 with Average for 1946-50—continued

| Item | Average 1946-50 | 1952 | 1953 | 1954 ^r | 1955 | 1956 |
|---|--------------------|-----------|---------|-------------------|-----------|-----------|
| Veal— | | | | | | |
| Animals slaughtered in Canada..... '000 | 1,310.1 | 859.8 | 1,173.0 | 1,465.0 | 1,342.9 | 1,388.4 |
| Estimated dressed weight..... '000 lb. | 132,957 | 89,306 | 124,575 | 153,816 | 139,548 | 145,643 |
| On hand, Jan. 1..... " | 5,726 | 4,171 | 3,891 | 5,199 | 3,700 | 4,662 |
| Imports..... " | 1 | 1 | 1 | 1 | 1 | 1 |
| Totals, Supply..... " | 138,683 | 93,477 | 128,466 | 159,015 | 143,248 | 150,305 |
| Exports..... " | 1 | 1 | 1 | 1 | 1 | 1 |
| Used for canning..... " | 2,608 | 1,736 | 1,454 | 1,366 | 1,297 | 1,483 |
| On hand, Dec. 31..... " | 5,328 | 3,891 | 5,520 | 3,700 | 4,662 | 5,698 |
| TOTALS, CONSUMPTION..... " | 130,747 | 87,850 | 121,492 | 153,949 | 137,289 | 143,124 |
| CONSUMPTION PER CAPITA..... lb. | 10.1 | 6.1 | 8.2 | 10.1 | 8.8 | 8.9 |
| Mutton and Lamb— | | | | | | |
| Animals slaughtered in Canada..... '000 | 1,077.7 | 595.9 | 673.3 | 728.6 | 808.1 | 786.5 |
| Estimated dressed weight..... '000 lb. | 47,640 | 26,318 | 29,909 | 31,015 | 34,167 | 33,348 |
| On hand, Jan. 1..... " | 7,074 | 3,584 | 4,482 | 3,359 | 2,901 | 4,816 |
| Imports..... " | 103 | 2,061 | 4,745 | 7,324 | 10,829 | 9,546 |
| Totals, Supply..... " | 54,817 | 32,563 | 39,136 | 41,698 | 47,897 | 47,710 |
| Exports..... " | 5,522 | 46 | 52 | 53 | 273 | 45 |
| Used for canning..... " | 508 | 350 | 310 | 301 | 330 | 628 |
| On hand, Dec. 31..... " | 6,297 | 4,482 | 3,533 | 2,901 | 4,816 | 2,916 |
| TOTALS, CONSUMPTION..... " | 42,490 | 27,685 | 35,241 | 38,443 | 42,478 | 44,121 |
| CONSUMPTION PER CAPITA..... lb. | 3.3 | 1.9 | 2.4 | 2.5 | 2.7 | 2.7 |
| Pork— | | | | | | |
| Animals slaughtered in Canada..... '000 | 6,840.4 | 8,864.1 | 6,892.6 | 7,082.2 | 7,950.6 | 7,995.1 |
| Estimated dressed weight..... '000 lb. | 890,307 | 1,143,331 | 885,488 | 917,171 | 1,019,121 | 1,028,170 |
| On hand, Jan. 1..... " | 39,449 | 39,000 | 68,813 | 28,731 | 32,280 | 34,965 |
| Imports..... " | 3,891 | 4,677 | 481 | 1,525 | 167 | 154 |
| Totals, Supply..... " | 933,647 | 1,187,008 | 954,782 | 947,427 | 1,051,568 | 1,063,289 |
| Exports..... " | 188,310 | 15,041 | 55,320 | 60,607 | 64,109 | 55,408 |
| Used for canning..... " | 46,628 | 190,911 | 55,935 | 39,093 | 48,844 | 50,574 |
| On hand, Dec. 31..... " | 39,093 | 68,813 | 30,752 | 32,280 | 34,965 | 20,549 |
| TOTALS, CONSUMPTION..... " | 659,616 | 912,243 | 812,775 | 815,447 | 903,650 | 936,758 |
| CONSUMPTION PER CAPITA..... lb. | 51.0 | 63.2 | 55.0 | 53.7 | 57.9 | 58.3 |
| Canned Meats— | | | | | | |
| Estimated production..... '000 lb. | 89,749 | 144,183 | 56,249 | 57,450 | 75,606 | 81,401 |
| On hand, Jan. 1..... " | 15,362 | 20,676 | 75,118 | 36,102 | 15,165 | 20,775 |
| Imports..... " | 4,314 | 14,185 | 11,543 | 15,978 | 15,629 | 13,662 |
| Totals, Supply..... " | 109,425 | 179,044 | 142,910 | 109,530 | 106,400 | 115,838 |
| Exports..... " | 56,589 | 14,874 | 46,743 | 26,226 | 14,919 | 11,442 |
| On hand, Dec. 31..... " | 8,807 | 75,118 | 36,102 | 15,165 | 20,775 | 18,764 |
| TOTALS, CONSUMPTION..... " | 44,029 | 89,052 | 60,065 | 68,139 | 70,706 | 85,632 |
| CONSUMPTION PER CAPITA..... lb. | 3.4 | 6.2 | 4.1 | 4.5 | 4.5 | 5.3 |
| Offal— | | | | | | |
| Estimated production..... '000 lb. | 81,218 | 81,209 | 81,468 | 89,447 | 94,973 | 98,552 |
| On hand, Jan. 1..... " | 2 | 2 | 2 | 5,169 | 5,348 | 5,042 |
| Imports..... " | 973 | 1,594 | 4,121 | 3,769 | 3,793 | 2,360 |
| Totals, Supply..... " | 82,191 | 82,803 | 85,589 | 98,385 | 104,114 | 105,954 |
| Exports..... " | 5,834 | 2,535 | 6,680 | 8,954 | 7,112 | 6,831 |
| Used for canning..... " | 9,631 | 2,493 | 3,509 | 3,871 | 2,099 | 2,285 |
| On hand, Dec. 31..... " | 2 | 2 | 2 | 5,348 | 5,042 | 5,145 |
| TOTALS, CONSUMPTION..... " | 66,726 | 77,775 | 75,400 | 80,212 | 89,861 | 91,693 |
| CONSUMPTION PER CAPITA..... lb. | 5.2 | 5.4 | 3.1 | 5.3 | 5.8 | 5.7 |

- For footnotes, see end of table, p. 454.

**46.—Supply, Distribution and Consumption of Meats and Lard 1952-56 with
Average for 1946-50—concluded**

| Item | Average 1946-50 | 1952 | 1953 | 1954 ¹ | 1955 | 1956 |
|------------------------------------|--------------------|---------|---------|-------------------|---------|---------|
| Lard—² | | | | | | |
| Estimated production..... '000 lb. | 113,756 | 186,972 | 139,323 | 137,931 | 152,779 | 155,148 |
| On hand, Jan. 1..... " | 2,620 | 6,000 | 12,352 | 4,916 | 5,490 | 5,707 |
| Imports..... " | 9,358 | 1,265 | 6,790 | 2,850 | 6,195 | 15,801 |
| Totals, Supply..... " | 125,734 | 194,237 | 158,465 | 145,697 | 164,464 | 176,156 |
| Exports..... " | 430 | 14,289 | 1,426 | 676 | 1,312 | 320 |
| On hand, Dec. 31..... " | 3,103 | 8,404 | 4,916 | 5,490 | 5,707 | 4,853 |
| TOTALS, CONSUMPTION..... " | 122,201 | 171,544 | 152,123 | 139,531 | 157,445 | 170,983 |
| CONSUMPTION PER CAPITA..... lb. | 9.4 | 11.9 | 10.3 | 9.2 | 10.1 | 10.6 |

¹ Included with beef.² Not available; assume no change in stocks between beginning and end of period.

* Includes commercial lard production and estimated lard equivalent of renderable pork fat available from all uninspected slaughter.

Section 5.—Agricultural Statistics of the Census*

Census of Agriculture statistics relating to farms, farm mechanization, electrification and area are included in this Section. No comparable data are available for Newfoundland for years previous to the 1951 Census.

For census purposes a farm is defined as a holding on which agricultural operations are carried out and which is three acres or more in size, or from one to three acres in size, and with an agricultural production in 1955 valued at \$250 or more. The holding may consist of a single tract of land or of a number of separate tracts held under the same or different tenures, and operated as a single unit. Where the farm was made up of several parts located in different municipalities, the 1956 Census reported the complete farm as one unit in the municipality where the headquarters was located. The same definition was used in the 1951 Census.

Number of Farms.—The number of farms in Canada at June 1, 1956, was 575,015, a decrease of 48,076 from the 623,091 farms recorded in the 1951 Census. As compared with 1951, all the provinces showed decreases in number of farms ranging from 5.8 p.c. in Alberta to 34.2 p.c. in Newfoundland. Decreases in the Atlantic Provinces, except Prince Edward Island, and in Quebec were above the national average of 7.7 p.c., while decreases in Prince Edward Island, Ontario and the Western Provinces were below it.

* Prepared in the Agriculture Section of the Census Division, Dominion Bureau of Statistics.

47.—Number of Farms by Province, Censuses of 1951 and 1956

| Province or Territory | 1951 | 1956 | Percentage Change 1951-56 |
|--------------------------------------|----------------|----------------|---------------------------------|
| | No. | No. | |
| Newfoundland..... | 3,626 | 2,387 | — 34.2 |
| Prince Edward Island..... | 10,137 | 9,432 | — 7.0 |
| Nova Scotia..... | 23,515 | 21,075 | — 10.4 |
| New Brunswick..... | 26,431 | 22,116 | — 16.3 |
| Quebec..... | 134,336 | 122,617 | — 8.7 |
| Ontario..... | 149,920 | 140,602 | — 6.2 |
| Manitoba..... | 52,383 | 49,201 | — 6.1 |
| Saskatchewan..... | 112,018 | 103,391 | — 7.7 |
| Alberta..... | 84,315 | 79,424 | — 5.8 |
| British Columbia..... | 26,406 | 24,748 | — 6.3 |
| Yukon and Northwest Territories..... | 4 | 22 | +450.0 |
| Canada..... | 623,091 | 575,015 | — 7.7 |

Farms Classified by Tenure.—The proportion of farms operated by the owner in Canada declined fractionally from 78.5 p.c. in 1951 to 78.0 p.c. in 1956. Decreases in the proportion of owner-operated farms in Prince Edward Island, Nova Scotia, Manitoba, Saskatchewan and Alberta more than offset increases in Newfoundland, Quebec, Ontario and British Columbia, while the proportion in New Brunswick remained unchanged.

The proportion of tenant-operated farms was lower in 1956 than in 1951 in each of the provinces except Prince Edward Island, the national average of 6.2 p.c. being lower than the 1951 average of 7.2 p.c. Saskatchewan had the highest proportion of tenant-operated farms with 13.0 p.c., followed by Alberta with 10.7 p.c. Newfoundland with 0.7 p.c., and Prince Edward Island, New Brunswick and Quebec with 1.0 p.c. had the lowest proportions.

48.—Tenure of Farms by Province, Censuses of 1951 and 1956

| Tenure and Year | Nfld. | | P.E.I. | | N.S. | | N.B. | | Que. | |
|------------------------------------|----------------|---------------|----------------|---------------|---------------|---------------------|---------------|--|----------------|--|
| | No. | | No. | | No. | | No. | | No. | |
| Owner (including manager).....1951 | 3,283 | | 9,510 | | 22,209 | | 25,189 | | 127,979 | |
|1956 | 2,245 | | 8,621 | | 19,859 | | 21,077 | | 117,458 | |
| Tenant.....1951 | 60 | | 82 | | 291 | | 316 | | 2,566 | |
|1956 | 17 | | 97 | | 241 | | 229 | | 1,269 | |
| Part owner, part tenant.....1951 | 283 | | 545 | | 1,015 | | 926 | | 3,791 | |
|1956 | 125 | | 714 | | 975 | | 810 | | 3,890 | |
| Totals, Farms.....1951 | 3,626 | | 10,137 | | 23,515 | | 26,431 | | 134,336 | |
|1956 | 2,387 | | 9,432 | | 21,075 | | 22,116 | | 122,617 | |
| | Ont. | Man. | Sask. | Alta. | B.C. | Canada ¹ | | | | |
| | No. | No. | No. | No. | No. | No. | | | | |
| Owner (including manager).....1951 | 125,159 | 37,541 | 61,763 | 53,482 | 22,763 | 488,882 | | | | |
|1956 | 119,450 | 34,357 | 54,881 | 49,054 | 21,713 | 448,730 | | | | |
| Tenant.....1951 | 8,852 | 5,062 | 16,495 | 9,735 | 1,524 | 44,983 | | | | |
|1956 | 6,368 | 4,325 | 13,476 | 8,484 | 1,010 | 35,521 | | | | |
| Part owner, part tenant.....1951 | 15,909 | 9,780 | 33,760 | 21,098 | 2,119 | 89,226 | | | | |
|1956 | 14,784 | 10,519 | 35,034 | 21,886 | 2,025 | 90,764 | | | | |
| Totals, Farms.....1951 | 149,920 | 52,383 | 112,018 | 84,315 | 26,406 | 623,091 | | | | |
|1956 | 140,602 | 49,201 | 103,391 | 79,424 | 24,748 | 575,015 | | | | |

¹ Includes the Yukon and Northwest Territories.

49.—Condition and Tenure of Occupied Farm Land by Province, Censuses of 1951 and 1956

| Item | Newfoundland | | P. E. Island | | Nova Scotia | | New Brunswick | |
|--------------------------------------|---------------|---------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | 1951 | 1956 | 1951 | 1956 | 1951 | 1956 | 1951 | 1956 |
| | acres | acres | acres | acres | acres | acres | acres | acres |
| Condition— | | | | | | | | |
| Under crops..... | 20,271 | 15,968 | 426,210 | 419,099 | 477,459 | 416,235 | 711,647 | 617,279 |
| Pasture (improved)..... | 5,885 | 5,739 | 197,937 | 201,225 | 155,108 | 161,424 | 243,872 | 252,686 |
| Summer fallow..... | | 92 | 1,806 | 2,463 | 2,524 | 2,649 | 6,927 | 13,560 |
| Other..... | 2,825 | 2,435 | 19,842 | 22,705 | 26,884 | 49,566 | 43,931 | 67,766 |
| Totals, Improved Land.. | 28,981 | 24,234 | 645,795 | 645,492 | 661,975 | 629,874 | 1,006,377 | 951,291 |
| Woodland..... | 37,394 | 26,919 | 346,191 | 334,226 | 1,845,648 | 1,566,071 | 2,044,103 | 1,703,702 |
| Other..... | 18,665 | 20,661 | 103,318 | 85,745 | 666,068 | 579,697 | 419,754 | 326,456 |
| Totals, Unimproved Land..... | 56,059 | 47,580 | 449,509 | 419,971 | 2,511,716 | 2,145,768 | 2,463,857 | 2,030,158 |
| Tenure— | | | | | | | | |
| Operated by owner ¹ | 79,770 | 69,573 | 1,068,013 | 1,031,968 | 3,101,578 | 2,711,619 | 3,371,867 | 2,910,864 |
| Operated by tenant..... | 5,270 | 2,241 | 27,291 | 33,495 | 72,113 | 64,023 | 98,367 | 70,585 |
| Totals, Farm Area..... | 85,040 | 71,814 | 1,095,304 | 1,065,463 | 3,173,691 | 2,775,642 | 3,470,234 | 2,981,449 |

¹ Includes area operated by manager.

49.—Condition and Tenure of Occupied Farm Land by Province, Censuses of 1951 and 1956— concluded

| Item | Quebec | | Ontario | | Manitoba | | Saskatchewan | |
|--------------------------------------|-------------------|-------------------|-------------------|-------------------|---------------------|--------------------|-------------------|-------------------|
| | 1951 | 1956 | 1951 | 1956 | 1951 | 1956 | 1951 | 1956 |
| | acres | acres | acres | acres | acres | acres | acres | acres |
| Condition— | | | | | | | | |
| Under crops..... | 5,790,359 | 5,549,524 | 8,645,302 | 8,219,407 | 7,335,184 | 7,686,013 | 23,705,575 | 24,480,501 |
| Pasture (improved)..... | 2,685,217 | 2,642,764 | 3,235,345 | 3,470,688 | 584,722 | 594,902 | 1,441,015 | 1,128,001 |
| Summer fallow..... | 47,084 | 67,082 | 333,764 | 333,973 | 2,519,264 | 2,827,551 | 12,855,394 | 14,193,468 |
| Other..... | 306,308 | 370,465 | 478,839 | 548,089 | 322,640 | 345,317 | 804,786 | 704,030 |
| Totals, Improved Land.. | 8,828,968 | 8,629,835 | 12,693,250 | 12,572,157 | 10,761,810 | 11,453,783 | 38,806,770 | 40,506,000 |
| Woodland..... | 5,874,341 | 4,877,803 | 3,852,774 | 3,338,870 | 1,812,209 | 1,566,494 | 2,945,167 | 2,379,043 |
| Other..... | 2,083,096 | 2,402,490 | 4,334,030 | 3,968,619 | 5,156,374 | 4,911,540 | 19,911,258 | 19,908,936 |
| Totals, Unimproved Land..... | 7,957,437 | 7,280,293 | 8,186,804 | 7,307,489 | 6,968,583 | 6,478,034 | 22,856,425 | 22,287,979 |
| Tenure— | | | | | | | | |
| Operated by owner ¹ | 16,261,924 | 15,515,261 | 18,632,732 | 17,982,565 | 13,788,328 | 13,818,460 | 40,363,086 | 41,408,721 |
| Operated by tenant..... | 524,481 | 394,867 | 2,247,322 | 1,897,081 | 3,942,065 | 4,113,357 | 21,300,109 | 21,385,258 |
| Totals, Farm Area..... | 16,786,405 | 15,910,128 | 20,880,054 | 19,879,646 | 17,730,393 | 17,931,817 | 61,663,195 | 62,793,979 |
| | Alberta | | British Columbia | | Totals ² | | | |
| | 1951 | 1956 | 1951 | 1956 | 1951 | 1956 | | |
| | acres | acres | acres | acres | acres | acres | | |
| Condition— | | | | | | | | |
| Under crops..... | 14,427,631 | 14,850,171 | 672,448 | 689,749 | 62,212,148 | 62,944,176 | | |
| Pasture (improved)..... | 1,112,825 | 1,279,894 | 343,195 | 320,251 | 10,005,126 | 10,057,819 | | |
| Summer fallow..... | 6,194,976 | 7,091,264 | 70,318 | 87,479 | 22,032,062 | 24,619,625 | | |
| Other..... | 535,612 | 524,784 | 61,815 | 69,273 | 2,603,490 | 2,704,623 | | |
| Totals, Improved Land.. | 22,271,044 | 23,746,113 | 1,147,776 | 1,166,752 | 96,852,826 | 100,326,243 | | |
| Woodland..... | 2,865,568 | 2,891,128 | 1,156,549 | 855,398 | 22,779,944 | 19,540,541 | | |
| Other..... | 19,323,020 | 19,333,154 | 2,397,949 | 2,516,731 | 54,413,884 | 54,056,907 | | |
| Totals, Unimproved Land..... | 22,188,588 | 22,224,282 | 3,554,498 | 3,372,129 | 77,193,828 | 73,597,448 | | |
| Tenure— | | | | | | | | |
| Operated by owner ¹ | 29,301,589 | 29,707,927 | 3,714,231 | 3,635,268 | 129,683,550 | 128,795,179 | | |
| Operated by tenant..... | 15,158,043 | 16,262,468 | 988,043 | 903,613 | 44,363,104 | 45,128,512 | | |
| Totals, Farm Area..... | 44,459,632 | 45,970,395 | 4,702,274 | 4,538,881 | 174,046,654 | 173,923,691 | | |

¹ Includes area operated by manager.² Includes the Yukon and Northwest Territories.

Farms Classified by Size of Holding.—Although in 1956 only 3.7 p.c. of the farms in Canada were less than 10 acres in size, 48.2 p.c. in Newfoundland and 25.7 p.c. in British Columbia were in this size group. Only 2.5 p.c. of the total farms in the other provinces were under 10 acres in size. The largest percentage of farms in the Maritime Provinces, Quebec and Ontario were in the 70-to-239-acre size group, while in Manitoba, Saskatchewan and Alberta the 240-to-399-acre size group contained the largest percentage of farms. In British Columbia it was the 10-to-69-acre size group and in Newfoundland the 3-to-9-acre size group that had the largest proportions of farms.

Farms in Canada were generally larger in 1956 than in 1951. The average size of farm increased from 279.3 acres in 1951 to 302.5 acres in 1956. The number of farms 400 acres or more in size increased nearly 4 p.c., while the number of farms under 400 acres in size decreased over 10 p.c. In Canada, 21.4 p.c. of the farms were 400 acres or more in size, but it was only in the Prairie Provinces that these large farms formed a significant proportion of the total—in Saskatchewan 58.7 p.c., in Alberta 43.3 p.c., and in Manitoba 33.7 p.c. In the other provinces the proportion of farms with 400 or more acres ranged from less than 1 p.c. in Newfoundland and Prince Edward Island to 8.2 p.c. in British Columbia.

50.—Farm Holdings classified by Size of Farm, by Province, Census 1956

| Size of Farm | Nfld. | P.E.I. | N.S. | N.B. | Que. | Ont. |
|---------------------------|---------------|----------------|---------------|---------------|---------------------------|----------------|
| | No. | No. | No. | No. | No. | No. |
| Under 3 acres..... | 77 | 9 | 78 | 62 | 196 | 688 |
| 3 — 9 acres..... | 1,073 | 217 | 1,255 | 861 | 1,976 | 5,988 |
| 10 — 69 "..... | 986 | 2,372 | 5,870 | 5,530 | 18,897 | 24,997 |
| 70 — 239 "..... | 225 | 6,312 | 11,002 | 12,718 | 89,131 | 90,133 |
| 240 — 399 "..... | 19 | 433 | 2,001 | 2,058 | 10,042 | 13,882 |
| 400 — 559 "..... | 2 | 70 | 580 | 590 | 1,826 | 3,818 |
| 560 — 759 "..... | 2 | 13 | 181 | 172 | 385 | 1,012 |
| 760 — 1,119 "..... | 2 | 5 | 83 | 95 | 123 | 431 |
| 1,120 — 1,599 "..... | — | 1 | 17 | 24 | 24 | 112 |
| 1,600 acres or over..... | 1 | — | 8 | 6 | 17 | 41 |
| Totals, Farms..... | 2,387 | 9,432 | 21,075 | 22,116 | 122,617 | 140,602 |
| | Man. | Sask. | Alta. | B.C. | Canada¹ | |
| | No. | No. | No. | No. | No. | |
| Under 3 acres..... | 114 | 45 | 78 | 705 | 2,052 | |
| 3 — 9 acres..... | 1,052 | 442 | 884 | 5,664 | 19,415 | |
| 10 — 69 "..... | 2,900 | 1,208 | 2,073 | 10,573 | 75,409 | |
| 70 — 239 "..... | 13,803 | 14,549 | 19,559 | 4,357 | 261,799 | |
| 240 — 399 "..... | 14,755 | 26,496 | 22,438 | 1,424 | 93,551 | |
| 400 — 559 "..... | 7,860 | 19,996 | 12,069 | 686 | 46,997 | |
| 560 — 759 "..... | 4,815 | 16,553 | 8,228 | 462 | 31,825 | |
| 760 — 1,119 "..... | 2,753 | 14,191 | 6,877 | 397 | 24,958 | |
| 1,120 — 1,599 "..... | 823 | 6,364 | 3,551 | 188 | 11,104 | |
| 1,600 acres or over..... | 326 | 3,547 | 3,667 | 292 | 7,905 | |
| Totals, Farms..... | 49,201 | 103,391 | 79,424 | 24,748 | 575,015 | |

¹ Includes the Yukon and Northwest Territories.

Economic Classification of Farms.—The Economics Division, Department of Agriculture, developed a classification of farms for the 1956 Census based on the productive capacity of farms as reflected in the inventory data shown by the Census. This classification differs from the 1951 Census economic classification of farms, which was based on income data as reported by the farm operators, and is not comparable.

For the 1956 Census, three classes of farms were delineated:—

COMMERCIAL CROP AND LIVESTOCK FARMS.—Farms having a potential production of \$1,200 or more (based on average production and price series) are classified as commercial crop and livestock farms. Commercial farms thus defined delineate that segment of the total number of farms on which the operators devoted most of their time to farming with a view to selling on the market. The selection of the \$1,200 benchmark is an arbitrary one but is believed to represent the lower limit of those farms which provide substantial employment to the operator. While an income of \$1,200 is clearly below desirable living standards it does represent a farm unit which has passed the subsistence stage.

INSTITUTIONAL FARMS, ETC.—This classification includes Indian reserve farms, experimental farms, community pastures, Hutterite colonies, and farms operated by penitentiaries, hospitals, etc.

OTHER FARMS.—This is a miscellaneous category including not only those units producing crops and livestock worth less than \$1,200 but also acreages devoted to greenhouses, nurseries, apiaries, forest products, fur production and goats.

Of the total farms in Canada, 454,078 or 79.0 p.c. were classified as commercial crop and livestock farms, the percentage ranging from 21.8 in Newfoundland to 95.6 in Saskatchewan.

51.—Farms classified by Economic Class, by Province, 1956

| Province | Commercial Crop and Livestock Farms | | Institutional Farms, etc. | | Other Farms | | All Farms |
|--------------------------------|-------------------------------------|---------------|---------------------------|---------------|----------------|---------------|----------------|
| | No. | P.C. of Total | No. | P.C. of Total | No. | P.C. of Total | No. |
| Newfoundland..... | 520 | 21.8 | 10 | 0.4 | 1,857 | 77.8 | 2,387 |
| Prince Edward Island..... | 6,958 | 73.8 | 6 | 0.1 | 2,468 | 26.1 | 9,432 |
| Nova Scotia..... | 8,107 | 38.5 | 23 | 0.1 | 12,945 | 61.4 | 21,075 |
| New Brunswick..... | 9,021 | 40.8 | 24 | 0.1 | 13,071 | 59.1 | 22,116 |
| Quebec..... | 88,197 | 72.0 | 179 | 0.1 | 34,241 | 27.9 | 122,617 |
| Ontario..... | 113,704 | 80.9 | 112 | 0.1 | 26,786 | 19.0 | 140,602 |
| Manitoba..... | 43,593 | 88.6 | 53 | 0.1 | 5,555 | 11.3 | 49,201 |
| Saskatchewan..... | 98,778 | 95.6 | 126 | 0.1 | 4,487 | 4.3 | 103,391 |
| Alberta..... | 71,969 | 90.7 | 118 | 0.1 | 7,337 | 9.2 | 79,424 |
| British Columbia..... | 13,226 | 53.4 | 40 | 0.2 | 11,482 | 46.4 | 24,748 |
| Canada¹..... | 454,078 | 79.0 | 695 | 0.1 | 120,242 | 20.9 | 575,015 |

¹ Includes the Yukon and Northwest Territories.

Farm Areas.—The total area of occupied farm land in Canada was 0.1 p.c. less in 1956 than in 1951. Decreases in the Atlantic Provinces, Ontario, Quebec and British Columbia were slightly greater than increases in the Prairie Provinces.

The area of improved land increased by 3.6 p.c. in the five-year period, entirely accounted for by increases in the Prairie Provinces and British Columbia. Similarly, the increase of 1.2 p.c. in the total area under crops for Canada as a whole also took place in the Prairie Provinces and British Columbia.

The total area of owner-operated farm land decreased by 0.7 p.c. in 1956 as compared with 1951. Decreases in Eastern Canada and British Columbia more than offset increases in the Prairie Provinces. The largest percentage decrease in farm land owned by the operator was in New Brunswick with 13.7 p.c., followed closely by Newfoundland with 12.8 p.c., and Nova Scotia with 12.6 p.c. Saskatchewan recorded the largest increase (2.6 p.c.) in farm area owner-operated, with Alberta and Manitoba following.

The increase for Canada in the area rented by farm operators, which amounted to 1.7 p.c. during the 1951-56 period, was contributed by the Prairie Provinces and Prince Edward Island. Decreases in farm land rented ranged from 8.5 p.c. in British Columbia to 28.2 p.c. in New Brunswick and 57.5 p.c. in Newfoundland.

Farm Machinery.—The upward trend in the number of machines on farms in Canada continued through the 1951-56 period. For Canada as a whole, all types of machines included in the 1956 Census showed an increase in number and in farms reporting them.

Grain combines showed the greatest percentage increase, 51.3 p.c. more combines being reported on farms in 1956 than in 1951. Farmers in Prince Edward Island reported 13 times as many, in Nova Scotia five and a half times as many, in Quebec three and a half times as many, and in New Brunswick almost three times as many. Increases in Ontario, Manitoba, Saskatchewan, Alberta and British Columbia were close to the national average of 51.3 p.c. and ranged from 40.3 p.c. in Manitoba to 65.9 p.c. in Ontario. Saskatchewan showed the largest numerical increase of 18,864 combines, and together with Alberta contributed two-thirds of the total 1951-56 increase of 46,427 combines for Canada. The total number of farms reporting combines increased 50.5 p.c. to 130,384 farms. Close to 50 p.c. of the farms in the Prairie Provinces reported combines.

There has also been a considerable increase during the period in the number of motor trucks on farms in all provinces, the increases ranging from 17.3 p.c. in New Brunswick to 93.4 p.c. in Prince Edward Island. Prince Edward Island, Newfoundland, Quebec, Saskatchewan and Alberta reported increases above the national average of 41.3 p.c. The largest numerical increase was reported in Saskatchewan.

The number of automobiles on farms in Canada increased 6.8 p.c. during the period 1951-56, exceeding the 4.5 p.c. increase during the 1941-51 period. All provinces contributed, provincial increases ranging from 1.7 p.c. in Manitoba to 44.9 p.c. in Newfoundland; 330,436 Canadian farms or 57.5 p.c. of all farms reported at least one automobile. Ontario where 75.1 p.c. of the farms reported automobiles and Manitoba where 63.6 p.c. reported automobiles led the provinces in this respect.

Canadian farms reported 25 p.c. more tractors in 1956 than in 1951 and all provinces shared in the increase. Newfoundland had the largest percentage increase with 134.9 p.c. followed by Prince Edward Island with 74.4 p.c. Saskatchewan reported the lowest percentage increase of 13.8 p.c. More than two out of three farms in Canada reported one or more tractors in 1956.

The national average increase between 1951 and 1956 in the number of gasoline engines reported on farms was 36.5 p.c. Six provinces, Nova Scotia, Ontario, Manitoba, Saskatchewan, Alberta and British Columbia reported increases, with Saskatchewan's advance of 80.6 p.c. contributing two-thirds of the total increase. Decreases in four provinces ranged from 7.7 p.c. in Prince Edward Island and 30.0 p.c. in Quebec to 39.0 p.c. in Newfoundland and 39.4 p.c. in New Brunswick.

52.—Farm Machinery by Province, Censuses of 1931, 1941, 1951 and 1956

| Province and Year | Automobiles | | Tractors | | Motor Trucks | | Gasoline Engines | | Grain Combines | |
|------------------------|---------------------|--------------------|----------|---------------------|---------------------|--------------------|------------------|--------------------|----------------|--------------------|
| | No. | Farms Re-reporting | No. | Farms Re-reporting | No. | Farms Re-reporting | No. | Farms Re-reporting | No. | Farms Re-reporting |
| Newfoundland.....1931 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1941 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1951 | 185 | 169 | 126 | 110 | 507 | 476 | 136 | 118 | — | — |
| 1956 | 268 | 255 | 296 | 272 | 735 | 686 | 83 | 66 | — | — |
| P. E. Island.....1931 | 3,885 | 3,741 | 176 | 169 | 369 | 356 | 4,193 | 3,641 | — | — |
| 1941 | 3,570 | 3,485 | 577 | 570 ¹ | 494 | 465 | 4,128 | 3,457 | 4 | 4 |
| 1951 | 4,147 | 4,021 | 2,776 | 2,714 | 1,679 | 1,614 | 3,813 | 3,181 | 18 | 18 |
| 1956 | 4,511 | 4,305 | 4,840 | 4,588 | 3,247 | 3,089 | 3,519 | 2,658 | 238 | 238 |
| Nova Scotia.....1931 | 10,297 | 9,982 | 424 | 415 | 1,704 | 1,633 | 2,848 | 2,578 | — | — |
| 1941 | 9,430 | 9,092 | 1,386 | 1,336 ¹ | 2,697 | 2,475 | 3,023 | 2,684 | 2 | 2 |
| 1951 | 6,970 | 6,757 | 4,307 | 4,056 | 5,687 | 5,308 | 2,178 | 1,901 | 16 | 16 |
| 1956 | 8,209 | 7,804 | 6,537 | 6,024 | 7,200 | 6,685 | 2,510 | 2,025 | 88 | 88 |
| New Brunswick.....1931 | 10,425 | 9,998 | 289 | 279 | 1,126 | 1,093 | 4,505 | 4,243 | — | — |
| 1941 | 8,677 | 8,403 | 1,140 | 1,135 ¹ | 1,861 | 1,762 | 4,344 | 4,006 | 15 | 15 |
| 1951 | 7,999 | 7,808 | 5,221 | 5,023 | 4,786 | 4,528 | 2,439 | 2,299 | 211 | 211 |
| 1956 | 8,757 | 8,413 | 7,646 | 7,017 | 5,614 | 5,197 | 1,478 | 1,341 | 598 | 598 |
| Quebec.....1931 | 26,877 | 25,741 | 2,417 | 2,356 | 5,152 | 4,939 | 36,251 | 34,029 | — | — |
| 1941 | 27,026 | 26,412 | 5,869 | 5,758 ¹ | 6,703 | 6,365 | 39,274 | 36,554 | 55 | 55 |
| 1951 | 41,602 | 40,937 | 31,971 | 30,835 | 19,167 | 18,438 | 30,692 | 28,589 | 420 | 418 |
| 1956 | 52,738 | 51,492 | 54,322 | 50,291 | 28,758 | 27,382 | 21,480 | 19,446 | 1,481 | 1,475 |
| Ontario.....1931 | 125,716 | 115,833 | 18,993 | 18,318 | 14,586 | 13,875 | 45,380 | 40,082 | — | — |
| 1941 | 128,744 | 118,829 | 35,460 | 34,478 ¹ | 17,537 | 16,312 | 32,801 | 28,193 | 796 | 786 |
| 1951 | 114,870 | 107,031 | 105,204 | 92,065 | 41,486 | 38,481 | 20,243 | 16,524 | 10,031 | 9,856 |
| 1956 | 117,321 | 105,574 | 136,062 | 105,792 | 58,041 | 52,859 | 24,289 | 18,214 | 16,644 | 16,294 |
| Manitoba.....1931 | 25,588 | 24,450 | 14,366 | 12,983 | 3,260 | 3,123 | 17,557 | 13,820 | 355 | 351 |
| 1941 | 27,074 | 26,410 | 22,050 | 20,948 ¹ | 7,566 | 7,248 | 15,772 | 12,639 | 1,714 | 1,655 |
| 1951 | 32,060 | 30,848 | 50,984 | 40,641 | 21,163 | 19,937 | 17,370 | 14,150 | 15,268 | 14,663 |
| 1956 | 32,619 ¹ | 31,312 | 59,265 | 42,236 | 28,556 ¹ | 26,255 | 24,305 | 18,689 | 21,425 | 20,679 |

¹ Includes duplication where farms had tractors under 15 h.p. and 15 h.p. or over.

52.—Farm Machinery by Province, Censuses of 1931, 1941, 1951 and 1956—concluded

| Province and Year | Automobiles | | Tractors | | Motor Trucks | | Gasoline Engines | | Grain Combines | |
|-----------------------------|-------------|-----------------|----------|----------------------|--------------|-----------------|------------------|-----------------|----------------|-----------------|
| | No. | Farms Reporting | No. | Farms Reporting | No. | Farms Reporting | No. | Farms Reporting | No. | Farms Reporting |
| Saskatchewan 1931 | 65,094 | 62,568 | 43,308 | 39,434 | 10,938 | 10,559 | 38,549 | 32,096 | 6,019 | 5,919 |
| 1941 | 57,093 | 55,767 | 54,129 | 51,353 ¹ | 21,285 | 20,225 | 33,882 | 27,935 | 11,202 | 10,822 |
| 1951 | 62,963 | 60,916 | 106,664 | 90,307 | 52,626 | 49,277 | 55,763 | 41,630 | 42,997 | 41,215 |
| 1956 | 64,941 | 62,692 | 121,388 | 91,768 | 74,498 | 66,076 | 100,732 | 63,253 | 61,861 | 58,699 |
| Alberta 1931 | 42,817 | 41,025 | 23,985 | 21,996 | 7,319 | 7,080 | 26,938 | 22,137 | 2,523 | 2,461 |
| 1941 | 44,090 | 42,678 | 36,445 | 34,456 ¹ | 14,512 | 13,634 | 31,091 | 25,199 | 5,165 | 4,910 |
| 1951 | 46,314 | 44,431 | 79,282 | 65,369 | 39,723 | 35,732 | 46,003 | 34,248 | 20,852 | 19,569 |
| 1956 | 47,714 | 44,778 | 94,156 | 68,393 | 58,749 | 49,974 | 63,462 | 41,024 | 33,531 | 31,317 |
| British Columbia . . . 1931 | 10,585 | 10,034 | 1,402 | 1,312 | 3,947 | 3,707 | 3,544 | 3,051 | 20 | 19 |
| 1941 | 9,757 | 9,318 | 2,696 | 2,573 ¹ | 4,825 | 4,490 | 3,910 | 3,245 | 60 | 54 |
| 1951 | 12,557 | 12,103 | 13,148 | 11,535 | 9,291 | 8,460 | 4,407 | 3,375 | 687 | 665 |
| 1956 | 14,933 | 13,804 | 15,282 | 12,422 | 11,758 | 10,254 | 7,896 | 5,196 | 1,060 | 995 |
| Canada 1931 | 321,284 | 303,372 | 105,360 | 97,262 | 48,401 | 46,365 | 179,765 | 155,677 | 8,917 | 8,750 |
| 1941 | 315,461 | 300,394 | 159,752 | 152,607 ¹ | 77,480 | 72,976 | 168,225 | 143,912 | 19,013 | 18,303 |
| 1951 ² | 329,667 | 315,021 | 399,686 | 342,658 | 196,122 | 182,255 | 183,051 | 146,018 | 90,500 | 86,631 |
| 1956 ² | 352,018 | 330,436 | 499,811 | 388,816 | 277,183 | 248,474 | 249,779 | 171,925 | 136,927 | 130,384 |

¹ Includes duplication where farms had tractors under 15 h.p. and 15 h.p. or over.
and Northwest Territories.

² Includes the Yukon

Farm Electrification.—Nearly three-quarters of the farms in Canada reported electric power in 1956. Provinces were divided into two distinct groups—above and below the national average of 73.5 p.c. In the first group were Nova Scotia, New Brunswick, Quebec, Ontario, Manitoba and British Columbia in which the percentage of farms reporting electric power ranged from 81.9 p.c. in British Columbia to 89.1 p.c. in Ontario. The second group included Newfoundland, Prince Edward Island, Saskatchewan and Alberta where the percentages ranged from 39.7 p.c. in Prince Edward Island to 51.5 p.c. in Alberta.

Power line was reported to be the source of power on over 95 p.c. of the farms reporting electricity for Canada and for all provinces except Saskatchewan and Alberta. In Saskatchewan, 79.5 p.c. of the farms reporting electricity reported power line source, 7.8 p.c. wind electric and 12.8 p.c. other sources. In Alberta, 87.6 p.c. of the farms reporting electricity reported power line source, 3.2 p.c. wind electric and 9.4 p.c. other sources.

53.—Farm Electrification by Province, Census 1956

| Province | Farms Reporting One or More Sources of Power | Source of Supply | | |
|-------------------------------------|--|------------------|---------------|---------------|
| | | Power Line | Wind Electric | Other Sources |
| | No. | No. | No. | No. |
| Newfoundland | 1,059 | 1,010 | 4 | 45 |
| Prince Edward Island | 3,748 | 3,678 | 5 | 67 |
| Nova Scotia | 18,677 | 18,604 | 10 | 66 |
| New Brunswick | 19,328 | 18,969 | 64 | 297 |
| Quebec | 108,015 | 107,259 | 215 | 553 |
| Ontario | 125,310 | 124,873 | 79 | 365 |
| Manitoba | 41,464 | 41,003 | 66 | 399 |
| Saskatchewan | 43,778 | 34,819 | 3,421 | 5,604 |
| Alberta | 40,937 | 35,844 | 1,312 | 3,839 |
| British Columbia | 20,279 | 19,334 | 19 | 930 |
| Canada¹ | 422,604 | 405,396 | 5,195 | 12,171 |

¹ Includes the Yukon and Northwest Territories.

Section 6.—International Crop Statistics

Tables 54 and 55 are based on estimates published in October and November 1957 by the Foreign Agricultural Service, United States Department of Agriculture, and give the acreages and production of wheat and the production of oats and barley for the harvests of 1955 and 1956 with averages for the years 1950-54 in the leading countries of the world.

54.—Estimated Acreages and Production of Wheat Harvested in 1955 and 1956 in Specified Countries with Average for 1950-54

| Continent and Country | Acreages of Wheat | | | Production of Wheat | | |
|---|--------------------|----------------|----------------|---------------------|------------------|------------------|
| | Average 1950-54 | 1955 | 1956 | Average 1950-54 | 1955 | 1956 |
| | '000 acres | '000 acres | '000 acres | '000 bu. | '000 bu. | '000 bu. |
| North America¹ | 90,780 | 70,850 | 74,950 | 1,646,000 | 1,461,000 | 1,612,000 |
| Canada..... | 25,702 | 21,506 | 22,781 | 528,986 | 494,142 | 573,060 |
| Mexico..... | 1,647 | 1,977 | 2,259 | 21,788 | 31,230 | 40,420 |
| United States..... | 63,361 | 47,285 | 49,817 | 1,094,183 | 934,731 | 997,207 |
| Europe¹ | 71,240 | 71,970 | 67,410 | 1,660,000 | 1,820,000 | 1,600,000 |
| Austria..... | 573 | 604 | 620 | 16,920 | 20,180 | 20,960 |
| Belgium..... | 421 | 473 | 464 | 20,278 | 26,250 | 22,050 |
| Denmark..... | 195 | 164 | 164 | 10,630 | 9,330 | 9,480 |
| Finland..... | 419 | 340 | 355 | 9,920 | 7,700 | 8,000 |
| France..... | 10,916 | 11,252 | 7,000 | 315,244 | 380,830 | 240,000 |
| Greece..... | 2,415 | 2,599 | 2,622 | 40,042 | 49,000 | 45,730 |
| Ireland..... | 362 | 360 | 350 | 13,036 | 14,900 | 15,900 |
| Italy..... | 12,085 | 12,300 | 12,308 | 288,080 | 349,210 | 318,980 |
| Luxembourg..... | 45 | 44 | 38 | 1,382 | 1,380 | 1,140 |
| Netherlands..... | 209 | 220 | 212 | 11,376 | 12,970 | 11,340 |
| Norway..... | 56 | 45 | 51 | 1,682 | 1,170 | 2,050 |
| Portugal..... | 1,785 | 1,991 | 1,942 | 23,526 | 18,650 | 20,860 |
| Spain..... | 10,470 | 10,536 | 10,638 | 155,000 | 150,000 | 155,000 |
| Sweden..... | 899 | 875 | 981 | 29,640 | 26,350 | 34,970 |
| Switzerland..... | 219 | 236 | 190 | 9,080 | 10,850 | 6,170 |
| United Kingdom..... | 2,263 | 1,949 | 2,283 | 94,646 | 97,070 | 106,960 |
| Western Germany..... | 2,728 | 2,875 | 2,830 | 110,228 | 123,570 | 127,560 |
| Yugoslavia..... | — | 4,700 | 4,003 | — | 89,500 | 64,670 |
| Other Europe ² | 20,240 | 20,400 | 20,360 | 429,000 | 431,000 | 388,000 |
| Union of Soviet Socialist Republics (Europe and Asia)..... | 111,500 | .. | .. | .. | .. | .. |
| Asia¹ | 127,760 | 137,970 | 142,850 | 1,760,000 | 1,875,000 | 1,875,000 |
| India..... | 24,422 | 27,517 | 30,386 | 251,586 | 327,710 | 319,910 |
| Iran..... | .. | .. | .. | 75,100 | 85,000 | 82,670 |
| Iraq..... | 1,871 | .. | .. | 22,210 | 17,390 | 22,850 |
| Japan..... | 1,766 | 1,639 | 1,625 | 53,322 | 53,940 | 50,520 |
| Lebanon..... | 165 | 165 | 165 | 1,902 | 2,020 | 2,020 |
| Pakistan..... | 10,364 | 10,653 | 11,280 | 129,800 | 118,420 | 124,210 |
| Syria..... | 2,277 | 2,718 | 2,718 | 26,510 | 22,050 | 32,150 |
| Turkey..... | 13,514 | 17,445 | 18,125 | 213,598 | 253,530 | 235,160 |
| Africa¹ | 16,490 | 16,860 | 17,550 | 183,000 | 193,000 | 213,000 |
| Algeria..... | 4,267 | 4,940 | 4,800 | 41,508 | 46,080 | 54,600 |
| Egypt..... | 1,631 | 1,593 | 1,630 | 49,060 | 53,330 | 56,860 |
| French Morocco..... | 3,496 | 4,112 | 3,783 | 35,302 | 35,070 | 38,470 |
| Tunisia..... | 2,399 | 1,955 | 2,937 | 19,796 | 14,520 | 17,540 |
| Union of South Africa..... | 3,020 | 2,474 | 2,671 | 23,040 | 29,210 | 30,680 |
| South America¹ | 17,730 | 16,810 | 20,080 | 307,000 | 304,000 | 360,000 |
| Argentina..... | 11,871 | 10,037 | 13,325 | 216,204 | 192,900 | 260,880 |
| Brazil..... | 1,310 | .. | .. | 18,900 | 27,000 | 30,000 |
| Chile..... | 1,933 | 1,925 | 1,894 | 37,446 | 38,500 | 36,860 |
| Peru..... | 391 | 420 | 408 | 5,114 | 6,140 | 4,780 |
| Uruguay..... | 1,515 | 1,968 | 1,614 | 22,376 | 31,210 | 19,980 |
| Oceania | 10,832 | 10,238 | 7,865 | 186,630 | 198,250 | 137,700 |
| Australia..... | 10,716 | 10,170 | 7,800 | 181,910 | 195,600 | 135,000 |
| New Zealand..... | 116 | 68 | 65 | 4,720 | 2,650 | 2,700 |
| World Totals¹ | 446,330 | 474,700 | 484,700 | 6,985,000 | 7,400,000 | 7,800,000 |

¹ Estimated totals are rounded to millions and include allowances for missing data for countries shown and data for producing countries not shown.

² Includes Albania, Bulgaria, Czechoslovakia, Eastern Germany, Hungary, Poland and Romania.

55.—Estimated Production of Oats and Barley Harvested in 1955 and 1956 in Specified Countries with Average for 1950-54

| Continent and Country | Oats | | | Barley | | |
|--|--------------------|------------------|------------------|--------------------|------------------|------------------|
| | Average 1950-54 | 1955 | 1956 | Average 1950-54 | 1955 | 1956 |
| | '000 bu. | '000 bu. | '000 bu. | '000 bu. | '000 bu. | '000 bu. |
| North America¹ | 1,703,000 | 1,916,000 | 1,679,000 | 519,000 | 662,000 | 651,000 |
| Canada..... | 414,086 | 407,783 | 524,445 | 228,334 | 252,385 | 269,065 |
| Mexico..... | 3,759 | 4,850 | 2,070 | 7,554 | 8,810 | 9,090 |
| United States..... | 1,285,417 | 1,503,074 | 1,152,652 | 283,026 | 401,225 | 372,495 |
| Europe¹ | 1,385,000 | 1,375,000 | 1,447,000 | 785,000 | 920,000 | 1,065,000 |
| Austria..... | 24,156 | 25,060 | 25,800 | 13,288 | 15,880 | 17,660 |
| Belgium..... | 32,462 | 33,140 | 33,340 | 12,344 | 12,880 | 13,240 |
| Denmark..... | 58,740 | 59,450 | 58,700 | 88,490 | 101,050 | 110,320 |
| Finland..... | 57,500 | 47,000 | 49,500 | 11,760 | 12,500 | 14,200 |
| France..... | 242,298 | 250,750 | 317,200 | 89,372 | 122,650 | 275,000 |
| Greece..... | 9,558 | 10,800 | 10,100 | 10,424 | 10,310 | 10,550 |
| Ireland..... | 38,744 | 39,690 | 37,520 | 8,910 | 11,480 | 14,650 |
| Italy..... | 37,516 | 36,060 | 34,890 | 13,057 | 13,400 | 12,650 |
| Luxembourg..... | 2,602 | 2,970 | 2,900 | .. | .. | .. |
| Netherlands..... | 32,210 | 39,960 | 33,670 | 11,048 | 12,110 | 12,740 |
| Norway..... | 11,726 | 7,850 | 12,500 | 7,350 | 9,620 | 13,660 |
| Portugal..... | 9,424 | 5,700 | 6,500 | 5,780 | 3,900 | 4,560 |
| Spain..... | 35,306 | 42,700 | 31,120 | 88,830 | 96,450 | 71,250 |
| Sweden..... | 59,744 | 41,130 | 79,170 | 14,850 | 18,740 | 28,130 |
| Switzerland..... | 4,946 | 4,640 | 6,160 | 2,581 | 2,900 | 4,370 |
| United Kingdom..... | 186,774 | 189,630 | 174,020 | 100,326 | 137,010 | 130,670 |
| Western Germany..... | 180,322 | 170,680 | 168,890 | 82,320 | 95,500 | 106,100 |
| Yugoslavia..... | .. | 19,150 | 22,320 | .. | 17,910 | 15,800 |
| Other Europe ² | 341,000 | 349,000 | 343,000 | 207,000 | 225,000 | 208,000 |
| Union of Soviet Socialist Republics (Europe and Asia) | .. | .. | .. | .. | .. | .. |
| Asia¹ | 106,000 | 108,000 | 108,000 | 805,000 | 840,000 | 805,000 |
| China..... | .. | .. | .. | 325,000 | .. | .. |
| India..... | .. | .. | .. | 116,414 | 133,930 | 128,290 |
| Iran..... | .. | .. | .. | 36,798 | 40,420 | 36,740 |
| Iraq..... | .. | .. | .. | 35,270 | 41,300 | 46,000 |
| Japan..... | 9,948 | 11,440 | 11,090 | 90,439 | 99,020 | 96,380 |
| Lebanon..... | .. | .. | .. | 664 | 740 | 760 |
| Manchuria..... | .. | .. | .. | .. | .. | .. |
| Pakistan..... | .. | .. | .. | 6,600 | 6,580 | 6,910 |
| Syria..... | 535 | .. | .. | 12,292 | 6,890 | 25,260 |
| Turkey..... | 24,958 | 24,530 | 26,320 | 128,380 | 137,100 | 100,000 |
| Africa¹ | 23,000 | 17,000 | 12,000 | 146,000 | 124,000 | 155,000 |
| Algeria..... | 8,940 | 5,900 | 5,860 | 37,494 | 32,470 | 46,210 |
| Egypt..... | .. | .. | .. | 4,976 | 5,820 | 5,920 |
| French Morocco..... | 3,978 | 2,110 | 1,590 | 71,220 | 57,330 | 72,340 |
| Tunisia..... | 1,074 | .. | .. | 8,920 | 4,050 | 7,160 |
| Union of South Africa..... | 8,350 | .. | .. | 2,200 | .. | .. |
| South America¹ | 67,000 | 61,000 | 91,000 | 62,000 | 70,000 | 86,000 |
| Argentina..... | 56,284 | 49,810 | 78,540 | 39,320 | 43,680 | 62,670 |
| Chile..... | 6,800 | 7,400 | 7,190 | 4,316 | 4,600 | 4,330 |
| Peru..... | .. | .. | .. | 8,980 | 10,560 | 7,670 |
| Uruguay..... | 2,816 | 2,800 | 3,470 | 1,344 | 1,330 | 1,990 |
| Oceania | 44,560 | 69,910 | 55,840 | 33,739 | 45,550 | 55,100 |
| Australia..... | 42,252 | 67,500 | 53,120 | 31,351 | 43,440 | 52,500 |
| New Zealand..... | 2,308 | 2,410 | 2,720 | 2,388 | 2,110 | 2,600 |
| World Totals¹ | 4,165,000 | 4,450,000 | 4,275,000 | 2,695,000 | 3,100,000 | 3,340,000 |

¹ Estimated totals are rounded to millions and include allowances for missing data for countries shown and for other producing countries not shown.

² Comprises Albania, Bulgaria, Czechoslovakia, Eastern Germany, Hungary, Poland and Romania.

CHAPTER X.—FORESTRY*

CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

Land is one of the bases of the Canadian economy and wise use of the land is the foundation of good forestry. In addition to providing the greatest amount of the most usable woods as economically as possible, good forestry aids in maintaining agricultural lands against drought and erosion; continuously protects water-catchment areas and assures supplies of water; furnishes cover for game and fur-bearing animals; and gives opportunity for recreation which only the forests can provide.

Section 1.—Forest Regions†

The forests of Canada cover a vast area in the north temperate climatic zone. Wide variations in physiographic, soil and climatic conditions cause marked differences in the character of the forests in different parts of the country; hence eight fairly well defined forest regions may be recognized. These regions, with the relative proportion of the total area of all forest regions occupied by each, are as follows:—

| Region | Percentage of Forested Area | Region | Percentage of Forested Area |
|-------------------------------|--------------------------------|----------------|--------------------------------|
| Boreal..... | 82.1 | Acadian..... | 2.0 |
| Great Lakes-St. Lawrence..... | 6.5 | Columbia..... | 0.8 |
| Subalpine..... | 3.7 | Deciduous..... | 0.4 |
| Montane..... | 2.3 | | |
| Coast..... | 2.2 | TOTAL..... | 100.0 |

Boreal Forest Region.—The Boreal Region comprises the greater part of the forested area of Canada, forming a continuous belt from the Atlantic Ocean westward to the Rocky Mountains and northwestward to Alaska. The white and the black spruces are characteristic tree species; other prominent conifers are tamarack, which ranges throughout the region, balsam fir and jack pine in the eastern and central portions, and alpine fir and

* Sections of this Chapter that deal with forestry and the federal forestry program were revised in the Forest Economics Section, Forestry Branch, Department of Northern Affairs and National Resources. Provincial forestry programs were prepared by the forestry officials of the respective provincial governments. Sections dealing with forest and allied industries, except as otherwise noted, have been revised in the Forestry Section, Industry and Merchandising Division, Dominion Bureau of Statistics.

† A more detailed discussion of forest regions is given in Bulletin No. 89, *A Forest Classification for Canada* by W. E. D. Halliday, a publication of the Forestry Branch, Department of Northern Affairs and National Resources, Ottawa. Accounts of variations in Canadian physiography, climate, etc., are given in Chapter I of this volume.

lodgepole pine in the western and northwestern parts. Although the region is primarily coniferous there is a general admixture of broadleaved trees such as the white birches and the poplars; these are important in the central and south-central portions, particularly where the region grades into the Grassland Formation of the prairies. In turn the proportion of barrens (non-forested rock, muskeg and tundra) increases in the northern parts until the region finally merges into the Tundra Formation. In the southern parts of the eastern portions of the region there is considerable intrusion of species from the Great Lakes-St. Lawrence Forest Region, such as the white and the red pines, yellow birch, sugar maple, black ash and eastern white cedar.

Subalpine Forest Region.—Coniferous forest found on the higher slopes of the mountains east of the Coast Ranges in British Columbia is known as the Subalpine Region. It extends northward to the divide between the drainage of the Skeena, Nass and Peace Rivers and that of the Stikine and Liard Rivers. The characteristic species are Engelmann spruce, alpine fir and lodgepole pine. There is a close relationship with the Boreal Region, from which the black and the white spruces and aspen intrude, more particularly in the northern parts. There is also some entry of Douglas fir from the Montane Forest, as well as western hemlock, western red cedar and amabilis fir from the Coast Forest. Other species found are western larch, whitebark pine and limber pine.

Montane Forest Region.—This region occupies a large part of the interior uplands of British Columbia, part of the Kootenay Valley and a small area on the east side of the Rocky Mountains. It is a northern extension of the typical forest of much of the western mountain system in the United States, and comes in contact with the Coast, Columbia and Subalpine Forests. Ponderosa pine is a characteristic species of the southern portions, to which it is restricted. Douglas fir is found throughout but more particularly in the central and southern parts. Lodgepole pine and aspen are generally present, the latter being well represented in the north-central portions. Engelmann spruce and alpine fir from the Subalpine Region become important constituents in the northern parts, together with white birch. The Boreal white spruce also enters here. Extensive bunch grass and sage brush communities of the Grassland Formation are found in many of the river valleys.

Coast Forest Region.—This is part of the Pacific Coast forest of North America. Essentially coniferous, the Coast Region consists principally of western red cedar and western hemlock, with Douglas fir in the south and Sitka spruce in the north. Amabilis fir and yellow cedar occur widely and, together with mountain hemlock and alpine fir, are common towards the timberline. Western white pine is found in the southern parts. Broadleaved trees such as black cottonwood, red alder and broadleaf maple have a limited distribution in this region. Arbutus and garry oak occur in Canada only on the southeast coast of Vancouver Island and the adjacent mainland. These are species that have entered from the Montane Forest in the United States.

Columbia Forest Region.—A large part of the Kootenay River valley, the upper valleys of the Thompson and Fraser Rivers, and the Quesnel Lake area of British Columbia contain a coniferous forest closely resembling that of the Coast Region. Western red cedar and western hemlock are the characteristic species of this Columbia Region. Associated with these are Douglas fir, which is of general distribution, and, in the southern parts, western white pine, western larch and grand fir. Engelmann spruce from the Subalpine Region is important in the upper Fraser Valley and is found to some extent at the upper levels of the forest in the remainder of the region. Towards lower elevations in the west and in parts of the Kootenay Valley, the forest grades into the Montane Region and in a few places into the Grassland Formation.

Deciduous Forest Region.—A small portion of this forest, widespread in the eastern United States, is found in southwestern Ontario between Lakes Huron, Erie and Ontario. Here with the broadleaved trees common to the Great Lakes-St. Lawrence Forest Region, such as sugar maple, beech, white elm, basswood, red ash, white oak and butternut, are scattered a number of other broadleaved species which have their northern limits in this locality. Among these are the tulip-tree, cucumber-tree, pawpaw, red mulberry, Kentucky

coffee-tree, redbud, black gum, blue ash, sassafras, mockernut and pignut hickories, and scarlet, black and pin oaks. Black walnut, sycamore and swamp white oak also are largely confined to this region. Conifers are few, mainly scattered white pine, tamarack, red juniper and hemlock.

Great Lakes-St. Lawrence Forest Region.—Along the Great Lakes and the St. Lawrence River valley is a forest of a very mixed nature, characterized by the white and the red pines, eastern hemlock and yellow birch with certain dominant broadleaved species common to the Deciduous Forest Region, such as sugar maple, red maple, red oak, basswood and white elm. Other species with wide range are the eastern white cedar, the largetooth aspen and, to a lesser extent, beech, white oak, butternut and white ash. Boreal species, such as the white and the black spruces, balsam fir, jack pine, poplar and white birch, intrude from the north, and in the east, red spruce from the Acadian Forest becomes abundant in certain portions.

Acadian Forest Region.—The greater part of the Maritime Provinces contains a forest closely related to both the Great Lakes-St. Lawrence and the Boreal Regions. The characteristic species is red spruce, with which are associated balsam fir, yellow birch and sugar maple, with some red pine, white pine, beech and hemlock. Other species of wide distribution are the black and the white spruces, red oak, white elm, black ash, red maple, white birch, wire birch and the poplars. Eastern white cedar and jack pine, however, are restricted almost entirely to the western half of the region.

Section 2.—Native Tree Species

There are more than 150 tree species in Canada of which 31 are conifers, commonly called 'softwoods'. About two-thirds of these softwoods and about 10 p.c. of the large number of deciduous or 'hardwood' species are of commercial importance. About 82 p.c. of the volume of merchantable timber is made up of softwood species.

The dominant species existing in each forest region are given in Section 1. Detailed information is contained in Forestry Branch Bulletin No. 61, *Native Trees of Canada*,* published by the Department of Northern Affairs and National Resources.

Section 3.—Forest Resources

The forested area of Canada is estimated at 1,621,045 sq. miles or 46 p.c. of the total land area.

Approximately 782,000 sq. miles or 48 p.c. of the total forested area of Canada is classified as non-productive, i.e., incapable of producing crops of merchantable wood. However, these forests do provide valuable protection for drainage basins and shelter for game and fur-bearing animals.

Of the productive portion of the forested area, 642,000 sq. miles are considered to be now accessible for commercial operations. The potentially accessible productive forests contain much valuable timber suitable for lumber and pulpwood. At present it is not economical to conduct cutting operations on these areas but, as low-cost methods of transportation are developed, as accessible forested areas become depleted, and as the demand for wood products increases, these potentially accessible productive forests will be brought progressively into commercial development. Because of less favourable climatic conditions the productive capacity of these timberlands is expected to be lower than that of the accessible areas now being logged.

The predominant part played by the lumber and other forest products industries in the development of Canada has resulted in a widespread tendency to evaluate the forest in terms of timber alone. A growing realization of the economic importance of the non-timber values, however, is bringing about increasing recognition of the true value of the forests and is thus developing a broader concept of forestry.

* Obtainable from the Queen's Printer, Ottawa, price \$1.50.

Inventories of forest resources are made periodically by provincial forest authorities and, with their co-operation, the Forestry Branch of the Department of Northern Affairs and National Resources compiles the National Forest Inventory. The latest estimates of the total stand of timber, by province and region, appear in Table 1. These estimates are subject to constant revision as more accurate and complete inventories are compiled.

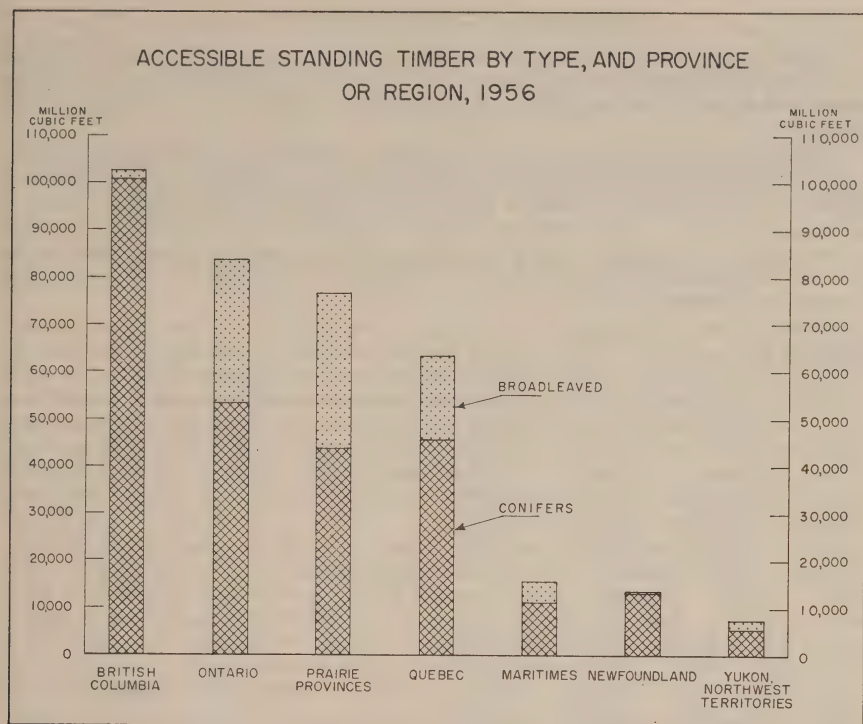
1.—Estimate of Standing Timber, by Type and Size and by Province and Region 1956

| Province and Region | Conifers | | | Broadleaved | | | Totals | | |
|--|---------------------|---------------------|------------------------------------|---------------------|---------------------|------------------------------------|---------------------|---------------------|------------------------------------|
| | Saw Timber | Smaller Material | Total Equi- valent Volume | Saw Timber | Smaller Material | Total Equi- valent Volume | Saw Timber | Smaller Material | Total Equi- valent Volume |
| Accessible | Million ft. b.m. | '000 cords | Million cu. ft. ¹ | Million ft. b.m. | '000 cords | Million cu. ft. ¹ | Million ft. b.m. | '000 cords | Million cu. ft. ¹ |
| Newfoundland— | | | | | | | | | |
| Labrador..... | 5,474 | 62,041 | 6,368 | 416 | 2,141 | 265 | 5,890 | 64,182 | 6,633 |
| Island..... | 5,857 | 65,354 | 6,727 | 1,039 | 1,150 | 305 | 6,896 | 66,504 | 7,032 |
| Prince Edward Island..... | 220 | 672 | 101 | 47 | 460 | 49 | 267 | 1,132 | 150 |
| Nova Scotia..... | 4,849 | 23,167 | 2,939 | 1,261 | 5,363 | 708 | 6,110 | 28,530 | 3,647 |
| New Brunswick..... | 12,250 | 65,294 | 8,000 | 9,500 | 24,706 | 4,000 | 21,750 | 90,000 | 12,000 |
| TOTALS, ATLANTIC PROVINCES..... | 28,650 | 216,528 | 24,135 | 12,263 | 33,820 | 5,327 | 40,913 | 250,348 | 29,462 |
| Quebec..... | 37,005 | 450,495 | 45,693 | 12,950 | 176,108 | 17,559 | 49,955 | 626,603 | 63,252 |
| Ontario..... | 80,703 | 438,771 | 53,436 | 78,359 | 171,242 | 30,228 | 159,062 | 610,013 | 83,664 |
| TOTALS, CENTRAL PROVINCES..... | 117,708 | 889,266 | 99,129 | 91,309 | 347,350 | 47,787 | 209,017 | 1,236,616 | 146,916 |
| Manitoba..... | 4,896 | 55,405 | 5,689 | 4,605 | 18,651 | 2,506 | 9,501 | 74,056 | 8,195 |
| Saskatchewan..... | 5,881 | 55,812 | 5,920 | 10,187 | 51,882 | 6,447 | 16,068 | 107,694 | 12,367 |
| Alberta..... | 65,277 | 225,235 | 32,200 | 61,224 | 136,061 | 23,810 | 126,501 | 361,296 | 56,010 |
| TOTALS, PRAIRIE PROVINCES..... | 76,054 | 336,452 | 43,809 | 76,016 | 206,594 | 32,763 | 152,070 | 543,046 | 76,572 |
| British Columbia..... | 458,015 | 109,581 | 100,918 | 8,137 | .. | 1,627 | 466,152 | 109,581 | 102,545 |
| Northwest Territories..... | 1,000 | 34,500 | 3,132 | 1,000 | 16,500 | 1,603 | 2,000 | 51,000 | 4,735 |
| Yukon Territory..... | 1,750 | 25,000 | 2,475 | 250 | 6,000 | 560 | 2,000 | 31,000 | 3,035 |
| TOTALS, ACCESSIBLE..... | 683,177 | 1,611,327 | 273,598 | 188,975 | 610,264 | 89,667 | 872,152 | 2,221,591 | 363,265 |
| TOTALS, POTENTIALLY ACCESSIBLE..... | 215,146 | 794,639 | 110,574 | 5,265 | 92,750 | 8,937 | 220,411 | 887,389 | 119,511 |
| Canada..... | 898,323 | 2,405,966 | 384,172 | 194,240 | 703,014 | 98,604 | 1,092,563 | 3,108,980 | 482,77 |

¹ Cubic volumes do not include wood in stumps and unusable tops.

Forest Land Tenure.—Private individuals or corporations own 5 p.c. of the total forest land of Canada and the remaining 95 p.c. is still in the possession of the Crown in the right of the Federal or the Provincial Governments. Rights to cut Crown timber under lease or licence have been granted on 11 p.c. of the total forest land. Some of the unalienated land has already been logged and has reverted to the Crown but it is mainly located in the less accessible areas.

Farm woodlots on the 623,000 farms across Canada cover about 22,780,000 acres (Census of 1951)—13 p.c. of the total farm area and over 6 p.c. of the total accessible productive forest. These small wooded tracts ranging in size from three or four acres to 200 or more acres are among the most accessible forests in Canada. Further, the woodlots of Eastern Canada are in general highly productive because they lie in the southern parts of the country and frequently occupy soils that are considerably higher in quality than those typical of the northern forests.



2.—Tenure of Occupied Forest Land by Province 1956

(Net area in sq. miles)

| Province or Territory | Provincial Crown Land | | | Federal Crown Land | | | Privately Owned Land | | | Total Occu- pied Forest Land |
|-----------------------------|---------------------------|-------------------------|----------------|---------------------------|--------------|--------------|-----------------------|---------------|---------------|--|
| | Leases and Licences | Permits and Sales | Total | Leases and Licences | Other | Total | Farm Wood- lots | Other | Total | |
| Newfoundland..... | 18,836 | — | 18,836 | — | — | — | 58 | 1,784 | 1,842 | 20,678 |
| Labrador..... | 12,008 | — | 12,008 | — | — | — | — | — | — | 12,008 |
| Island..... | 6,828 | — | 6,828 | — | — | — | 58 | 1,784 | 1,842 | 8,670 |
| Prince Edward Island..... | — | — | — | — | — | — | 541 | 65 | 606 | 609 |
| Nova Scotia..... | 700 | 44 | 744 | — | 52 | 52 | 2,884 | 5,581 | 8,465 | 9,261 |
| New Brunswick..... | 10,732 | — | 10,732 | — | 574 | 574 | 3,194 | 7,932 | 11,126 | 22,432 |
| Quebec..... | 64,839 | — | 64,839 | — | — | — | 9,179 | 12,434 | 21,613 | 86,452 |
| Ontario..... | 75,391 | — | 75,391 | — | 206 | 206 | 6,020 | 12,166 | 18,186 | 93,783 |
| Manitoba..... | 1,522 | 839 | 2,361 | — | 456 | 456 | 2,832 | 1,801 | 4,633 | 7,450 |
| Saskatchewan..... | 1,406 | 44 | 1,450 | — | 575 | 575 | 4,602 | 1,372 | 5,974 | 7,999 |
| Alberta..... | 3,042 | 986 | 4,028 | 289 | 1,325 | 1,614 | 4,477 | — | 4,477 | 10,119 |
| British Columbia..... | 3,760 | 3,487 | 7,247 | — | 808 | 808 | 1,807 | 6,688 | 8,495 | 16,550 |
| Northwest Territories..... | — | — | — | 9 | — | 9 | — | — | — | 9 |
| Yukon Territory..... | — | — | — | 19 | — | 19 | — | — | — | 19 |
| Canada..... | 180,228 | 5,400 | 185,628 | 317 | 3,999 | 4,316 | 35,594 | 49,823 | 85,417 | 275,361 |

Section 4.—Forest Depletion

A general account of forest depletion and increment together with statistics of forest fires and fire losses is presented in this Section. Details of the scientific control of those influences that account for wastage, such as forest fires, insect pests, etc., are dealt with in Section 5.

The average annual rate and cause of depletion of reserves of merchantable timber during the ten years 1945-54, together with preliminary data for 1955, are given in Table 3. Of the total depletion of the forests in the ten-year period, 94 p.c. was utilized and 6 p.c. was destroyed by fire. The utilization of 3,023,922,000 cu. feet comprised 45 p.c. logs and bolts, 38 p.c. pulpwood, 14 p.c. fuelwood, and the remaining 3 p.c. miscellaneous products. Approximately 6 p.c. of the total utilization was exported in the form of logs and bolts and pulpwood.

The more efficient utilization of cut timber is an important factor related to forest depletion, for there is little doubt that in the past too high a percentage of the sawn log was discarded. Changes of great significance have been taking place in the uses of wood, permitting the utilization of sizes, qualities and species previously considered unmerchantable. The development and the manufacture of rayon, cellophane and numerous other products in the cellulose industry is rapidly extending the use of wood. The increasing demand for plastic-wood products, fibre board and laminated wood is resulting in greater use of inferior classes of wood and therefore in the more complete utilization of forest resources and the elimination of much waste.

The accessible portion of the productive forests of Canada, covering an area of 642,000 sq. miles, constitute the reserve from which forest production will be obtained for many years to come. The supply of merchantable timber on this area is estimated to be 363,265,000,000 cu. feet, of which approximately 153,300,000,000 cu. feet are located on that portion of the area at present under lease or private ownership. The utilization in 1955 of 3,280,000,000 cu. feet represents 0.9 p.c. of the accessible productive volume, and 2.1 p.c. of the merchantable volume on the occupied areas (where the utilization is actually taking place). These percentages show that cutting is concentrated in the occupied areas and the wood that grows on the unoccupied areas is not as yet being used. This situation emphasizes the necessity for the orderly management of all commercial forests if the forest industries are to maintain their dominant position in the development of the natural resources of Canada.

3.—Average Forest Utilization and Depletion 1954 and 1955 compared with Ten-Year Average 1945-54

| Item | Usable Wood | | | Depletion ¹ | | |
|--|------------------|------------------|-------------------|------------------------|--------------|-------------------|
| | Av. 1945-54 | 1954 | 1955 ^a | Av. 1945-54 | 1954 | 1955 ^a |
| | M cu. ft. | M cu. ft. | M cu. ft. | p. c. | p. c. | p. c. |
| Products Utilized— | | | | | | |
| Logs and Bolts— | | | | | | |
| Domestic use..... | 1,346,324 | 1,482,531 | 1,555,634 | 42.0 | 46.3 | 44.1 |
| Exported..... | 10,863 | 9,702 | 7,501 | 0.3 | 0.3 | 0.2 |
| Pulpwood— | | | | | | |
| Domestic use..... | 978,484 | 1,097,637 | 1,207,439 | 30.5 | 34.3 | 34.2 |
| Exported..... | 173,105 | 155,226 | 160,037 | 5.4 | 4.8 | 4.5 |
| Fuelwood..... | 433,486 | 313,461 | 289,872 | 13.5 | 9.8 | 8.2 |
| Other products..... | 81,660 | 63,756 | 59,587 | 2.6 | 2.0 | 1.7 |
| Average Annual Utilization..... | 3,023,922 | 3,122,313 | 3,280,070 | 94.3 | 97.5 | 92.9 |
| Wastage— | | | | | | |
| By forest fires..... | 182,519 | 81,170 | 250,770 | 5.7 | 2.5 | 7.1 |
| Average Annual Depletion..... | 3,206,441 | 3,203,483 | 3,530,840 | 100.0 | 100.0 | 100.0 |

¹ Does not include wastage caused by agencies other than fire, such as insects, disease and natural mortality, for which no reliable estimates are available.

Forest Fire Statistics.—During 1955 there were 6,360 forest fires in Canada (exclusive of 156 within the Yukon and Northwest Territories) compared with 3,022 in 1954 and an annual average of 5,141 for the period 1945-54. In 1954 only about 266,000 acres were damaged compared with over 1,379,000 in 1955. However, the 1955 area burned was almost identical to the average for the previous decade while the size of the average fire was lower. Costs of fire fighting are more indicative of the difference in severity of the two fire seasons—a little less than \$1,000,000 in 1954 and more than \$6,500,000 in 1955. The average of similar costs for the period 1945-54 was about \$2,000,000. About 30 p.c. of all forest fires in 1955 were caused by lightning.

4.—Forest Fire Losses 1954 and 1955 compared with Ten-Year Average 1945-54

| Item | | Provinces ¹ | | | Yukon and Northwest Territories |
|---|------------------|--------------------------|-------------------|-------------------|---------------------------------|
| | | Av. 1945-54 ² | 1954 ³ | 1955 ³ | |
| Totals, Fires | No. | 5,141 | 3,022 | 6,360 | 156 |
| Fires under 10 acres..... | " | 3,902 | 2,573 | 5,213 | 81 |
| Fires 10 acres or over..... | " | 1,239 | 449 | 1,147 | 75 |
| Area Burned | acres | 1,373,596 | 265,626 | 1,379,567 | 234,375 |
| Merchantable timber..... | " | 255,278 | 72,136 | 344,556 | 4,659 |
| Young growth..... | " | 366,804 | 50,677 | 241,513 | 55,021 |
| Cut-over lands..... | " | 153,996 | 38,981 | 563,868 | 2,009 |
| Non-forested lands..... | " | 597,518 | 103,832 | 229,630 | 172,686 |
| Average size of fire | acres | 267 | 88 | 217 | 1,502 |
| Merchantable Timber Burned— | | | | | |
| Saw timber..... | M ft. b.m. | 382,041 | 46,474 | 238,141 | 25,549 |
| Smaller material..... | cords | 1,054,139 | 834,055 | 2,321,077 | 8,713 |
| Estimated Values Destroyed⁴ | \$ | 3,655,718 | 1,667,685 | 7,140,960 | 306,888 |
| Merchantable timber..... | \$ | 1,575,591 | 1,246,176 | 4,491,543 | 159,376 |
| Young growth..... | \$ | 985,308 | 158,232 | 763,497 | 110,043 |
| Cut-over lands..... | \$ | 130,498 | 45,895 | 565,718 | 2,009 |
| Other property burned..... | \$ | 964,321 | 217,382 | 1,320,202 | 35,460 |
| Actual Cost of Fire Fighting | \$ | 2,059,827 | 931,231 | 6,570,944 | 110,244 |
| Totals, Damage and Fire Fighting Costs .. | \$ | 5,715,545 | 2,598,916 | 13,711,904 | 417,132 |
| Area under protection | sq. miles | .. | 1,106,694 | 1,052,590 | 118,500 |

¹ Includes federal lands within provincial boundaries.

² Newfoundland excluded; no records available prior to 1949.

³ Newfoundland included.

⁴ Figures do not include such values as damage to soil, stream-flow, wildlife, recreation and tourist facilities, or the enhanced values resulting from silviculture and management practices.

5.—Forest Fire Losses by Province 1954 and 1955 compared with Ten-Year Average 1945-54

| Item | | Annual Average 1945-54 | 1954 | 1955 |
|------------------------------------|-------|------------------------|--------|---------|
| Newfoundland— | | | | |
| Forest fires..... | No. | .. | 108 | 137 |
| Area burned..... | acres | .. | 1,839 | 4,687 |
| Fire fighting cost and damage..... | \$ | .. | .. | 6,329 |
| Nova Scotia— | | | | |
| Forest fires..... | No. | 271 | 359 | 261 |
| Area burned..... | acres | 10,302 | 4,194 | 20,466 |
| Fire fighting cost and damage..... | \$ | 130,044 | 51,458 | 78,542 |
| New Brunswick— | | | | |
| Forest fires..... | No. | 249 | 187 | 164 |
| Area burned..... | acres | 16,836 | 2,002 | 12,788 |
| Fire fighting cost and damage..... | \$ | 212,488 | 19,775 | 156,090 |

5.—Forest Fire Losses by Province 1954 and 1955 compared with Ten-Year Average 1945-54—concluded

| Item | Annual Average 1945-54 | 1954 | 1955 |
|---------------------------------------|------------------------------|-----------|-----------------|
| Quebec— | | | |
| Forest fires..... No. | 1,134 | 392 | 1,276 |
| Area burned..... acres | 171,259 | 51,959 | 549,550 |
| Fire fighting cost and damage..... \$ | 1,106,023 | 153,545 | 4,914,672 |
| Ontario— | | | |
| Forest fires..... No. | 1,335 | 881 | 2,252 |
| Area burned..... acres | 155,071 | 54,693 | 396,423 |
| Fire fighting cost and damage..... \$ | 1,202,302 | 960,810 | 6,512,453 |
| Manitoba— | | | |
| Forest fires..... No. | 262 | 121 | 327 |
| Area burned..... acres | 184,771 | 5,871 | 106,926 |
| Fire fighting cost and damage..... \$ | 256,043 | 18,655 | 350,461 |
| Saskatchewan— | | | |
| Forest fires..... No. | 126 | 57 | 175 |
| Area burned..... acres | 138,161 | 3,802 | 33,497 |
| Fire fighting cost and damage..... \$ | 110,394 | 15,410 | 109,363 |
| Alberta— | | | |
| Forest fires..... No. | 191 | 80 | 232 |
| Area burned..... acres | 395,610 | 128,337 | 201,294 |
| Fire fighting cost and damage..... \$ | 1,209,252 | 1,128,538 | 1,243,840 |
| British Columbia— | | | |
| Forest fires..... No. | 1,491 | 764 | 1,384 |
| Area burned..... acres | 279,952 | 10,309 | 46,694 |
| Fire fighting cost and damage..... \$ | 1,264,147 | 211,792 | 233,974 |
| Federal Lands— | | | |
| Yukon Territory— | | | |
| Forest fires..... No. | .. | 55 | 75 |
| Area burned..... acres | .. | 7,109 | 41,329 |
| Fire fighting cost and damage..... \$ | .. | 27,627 | 30,996 |
| Northwest Territories— | | | |
| Forest fires..... No. | .. | 57 | 81 |
| Area burned..... acres | .. | 1,124,480 | 193,046 |
| Fire fighting cost and damage..... \$ | .. | 289,214 | 386,136 |
| National Parks— | | | |
| Forest fires..... No. | 32 | 18 | 43 |
| Area burned..... acres | 4,564 | 151 | 1,220 |
| Fire fighting cost and damage..... \$ | 8,910 | 1,435 | 76,507 |
| Indian Lands— | | | |
| Forest fires..... No. | 45 | 29 | 36 |
| Area burned..... acres | 16,968 | 2,093 | 1,136 |
| Fire fighting cost and damage..... \$ | 35,675 | 3,962 | 12,566 |
| Other Federal Lands— | | | |
| Forest fires..... No. | .. | 26 | 73 ¹ |
| Area burned..... acres | .. | 376 | 4,886 |
| Fire fighting cost and damage..... \$ | .. | 1,170 | 17,107 |

¹ Includes military areas.

6.—Forest Fires by Cause 1954 and 1955 compared with Ten-Year Average 1945-54

| Cause | Provinces ¹ | | | | | | Yukon and Northwest Territories | |
|----------------------------|--------------------------|------------|-------------------|------------|-------------------|------------|---------------------------------------|------------|
| | Av. 1945-54 ² | | 1954 ³ | | 1955 ³ | | 1955 | |
| | No. | p.c. | No. | p.c. | No. | p.c. | No. | p.c. |
| Camp fires..... | 829 | 16 | 580 | 19 | 899 | 14 | 42 | 27 |
| Smokers..... | 1,164 | 23 | 515 | 17 | 1,174 | 19 | 21 | 13 |
| Settlers..... | 535 | 10 | 251 | 8 | 632 | 10 | — | — |
| Railways..... | 546 | 11 | 329 | 11 | 570 | 9 | 5 | 3 |
| Lightning..... | 924 | 18 | 447 | 15 | 1,893 | 30 | 54 | 34 |
| Industrial operations..... | 244 | 5 | 148 | 5 | 295 | 5 | 1 | 1 |
| Incendiary..... | 139 | 3 | 99 | 3 | 156 | 2 | — | — |
| Public works..... | 79 | 1 | 53 | 2 | 78 | 1 | 1 | 1 |
| Miscellaneous known..... | 449 | 9 | 451 | 15 | 387 | 6 | 3 | 2 |
| Unknown..... | 232 | 4 | 149 | 5 | 276 | 4 | 29 | 19 |
| Totals..... | 5,141 | 100 | 3,023 | 100 | 6,360 | 100 | 156 | 100 |

¹ Includes federal lands within provincial boundaries.
prior to 1949.

³ Newfoundland included.

² Newfoundland excluded; no records available

Section 5.—Forest Administration, Conservation and Research

Subsection 1.—Federal Forestry Program

Administration.—The Federal Government is responsible for the protection and administration of the forest resources of the Yukon and Northwest Territories and of other federal lands such as the National Parks, forest experiment stations, military areas and Indian reserves. The Federal Government also administers the Canada Forestry Act which provides, among other things, authority for the operation of forest experiment stations and forest products laboratories.

The Act also authorizes the granting of federal assistance to the provinces to enable them to improve the management of their own forests. Under the Federal-Provincial Agreements signed under authority of the Act, seven of Canada's ten provinces have undertaken a forest inventory with federal financial assistance, and six provinces have reforestation agreements. The history of the Federal-Provincial Agreements and their relation to the Canada Forestry Act is described in a special article appearing in the 1956 Year Book, pp. 459-466. In 1957 the Federal Government broadened the implementation of the Canada Forestry Act by providing financial assistance to the provinces for forest fire protection. A total of \$5,000,000 is to be made available for this purpose during the next five years. Federal contributions will be applicable to capital expenditures, such as the cost of fire protection equipment and improvements, and of forest access roads, trails and buildings required for forest fire protection.

The Forestry Branch of the Department of Northern Affairs and National Resources has been continuing work on the aerial forest mapping of federally administered lands and other territories. For example, forest inventory maps were prepared from air photographs for portions of the Yukon and Northwest Territories and data were collected on the ground to support the interpretation of the photographs. The development of instrumental aids in forest photography and in interpretation is being continued by this Branch.

Forestry Research.—In the field of forestry the chief responsibility of the Federal Government is to carry out research in problems affecting the forests of Canada and their development, conservation and more effective utilization. To this end forest research and forest products research facilities have been expanded greatly throughout Canada during the past five years. The Forestry Branch of the Federal Department of Northern Affairs and National Resources conducts research in forest economics, silviculture, management, forest inventory methods, forest fire protection and in forest products. An extensive program of research is under way on the government experiment stations and on other lands, where an increasing proportion of the total effort is being expended in co-operation with provincial authorities and industry.

Research in silviculture and management has been concentrated on problems of regeneration, on growth and stand development, and on harvest cutting methods. A regeneration survey extending from the Rocky Mountains to the Atlantic Coast has provided information on the state of regeneration on cut-over and burned lands. This has been followed by intensive work of a more fundamental nature to assess the factors responsible for the success or failure of regeneration and tests of practical cutting methods, seed-bed treatments, and seeding and planting methods. Studies are made of the growth, yield and successional changes in the most important forest types. Systems of classifying forest sites are being devised to assess their effective growth, development and long-term productivity. Research in tree breeding is being carried on for artificial propagation by selection and development of superior strains. In forest management, research is concerned with the application of silviculture, regulation of cut, and protection in order to maintain forests at the highest production levels. Many of the studies in silviculture and forest management are conducted co-operatively with provincial forest services and wood-using industries.

Forest fire protection is a vital problem and is therefore a major concern of federal authorities. In forest fire research the Federal Forestry Branch is working towards full co-operation with the provincial forest services in achieving the best methods of forest fire protection. The leading contributions of the Branch have been in the field of fire danger measurement and in the development of equipment and techniques for fire fighting. Some of the more important studies being undertaken at present include the development of fuel-type classification methods and mapping techniques, the development of a method for rating fire season severity and fire protection organization efficiency, and the testing of fire-suppression equipment, such as back-pack tanks and hose.

Research in forest inventory methods is of increasing importance because of the greatly expanded inventory programs being conducted in most provinces. Data from air photographs are correlated with field work to develop new techniques of timber estimating, which is being facilitated by the use of stand volume tables. Various methods of field sampling are being investigated and compared. Research is continuing in methods for measuring tree images and tree shadows to determine heights, crown widths, canopy density and other data from photographs taken in different seasons of the year under various conditions. The use of large-scale photography of sample areas is also being investigated and studies are being made in the identification of species and sub-types. Construction of suitable photogrammetric and other scientific apparatus includes those required by the forestry tricamera method of air photography which has been developed to provide maximum forestry information at minimum cost, and the shadow height calculator, which facilitates the determination of tree heights from shadows in air photographs.

Research in forest economics is concentrated on problems associated with the production of wood in the forest, land use, land tenure, taxation, forest legislation and administrative techniques, forest, management, forest labour and the valuation of forest lands. Economics research also involves continued study of the broad developments in forest industries. Further information on research is given in a special article on The Forest Products Laboratories of Canada in the 1955 Year Book, pp. 455-461.

Subsection 2.—Provincial Forestry Programs

All forested land in provincial territory, with the exception of the minor portions in National Parks, forest experiment stations, military areas and Indian reserves (*see* Table 2, p. 19), is administered by the respective provincial governments. The forestry program of each province is outlined below.

Newfoundland.—Of the estimated 30,505 sq. miles of productive forests in Newfoundland, 12,758 sq. miles lie on the Island and the remainder in Labrador. Most of Labrador's forests are leased but as yet virtually untouched although there is enough timber for the establishment of several large paper mills. Because of this lack of development the area is supervised by one Forest Inspector and a Forest Warden.

On the Island 63 p.c. of the forested area, mostly in the interior, is owned by, or leased to, two large paper companies. Of the remainder, 32 p.c. is unoccupied Crown land and 5 p.c. private holdings. A belt of coastal timber about three miles wide is retained to supply domestic firewood and construction material and each household has the right to cut 2,000 cu. feet of such wood each year. In most districts this form of cutting is done without restrictions but a policy is now being introduced whereby cutting in certain management areas will be controlled by forest officers.

Commercial timber cutting on unoccupied Crown lands has been by permit since 1952; for amounts up to 120 cords per person permits are issued by the field staff but for larger quantities permits must be approved by the Lieutenant-Governor in Council. The number of large permits varies from 10 to 25 each year and usually cover stands damaged by gales, fire or insects. Unoccupied Crown land is divided into 21 Forest Inspector Districts of varying size, averaging 281 sq. miles. The Island is also divided into three Forest Regions each with a Supervisor who is in charge of Inspectors and is responsible to the Minister of Mines and Resources and the Forestry headquarters staff.

Fire prevention is difficult because of a lack of roads into the remote forests. Twenty well-equipped forest fire depots are scattered along the coast, most of them equipped with radio telephone. Twelve lookout towers, ten of which are equipped with radiotelephone, cover a large portion of the forested area. One aircraft, stationed at Gander throughout the fire season, patrols isolated forests and transports fire fighting equipment and crews when necessary. The total forest fire staff, including permanent Inspectors and others, is approximately 90. The two paper companies maintain their own fire protection organization.

The Newfoundland Royal Commission on Forestry, appointed in 1954, recommended development of the pulp and paper industry; completion of a forest inventory; establishment of forest protection administration; and organization of a forest service.

Forest research for Newfoundland is performed by the Forestry Branch of the Federal Department of Northern Affairs and National Resources but very little reforestation is done, as yet.

Prince Edward Island.—The Forestry Division of Prince Edward Island, formed under the Department of Industry and Natural Resources in 1951, became part of the Department of Agriculture in 1955.

Almost all of Prince Edward Island's woodland is privately owned, so that the Forestry Division is mainly concerned with planting, woodlot management and fire protection. A small nursery has been established jointly with the Federal Government to deal with the Island's needs and many people take advantage of seedlings, supplied by this Division at reasonable cost, to restock fire barren areas. The Federal Government pays half the cost of reforesting waste lands.

In proportion to its size, Prince Edward Island exports a great deal of pulpwood. This export, combined with the fuelwood and lumber cut each year, led the Forestry Division to inaugurate a woodlot management program which is designed to educate the owner in the proper care and management of his woodlot.

Fire protection does not constitute too great a problem. Wooded areas are scattered in patches throughout the Province and since a network of roads makes all woodlots accessible, equipment can be brought to the scene of a fire quickly and easily.

Research is limited mainly to reforestation problems and these are studied in the provincial nursery.

Nova Scotia.—Forest administration in Nova Scotia is conducted by the Department of Lands and Forests which, in conjunction with the forest industry and the public, tries to protect and rejuvenate provincial forests. The Department employs 20 trained foresters, one wildlife biologist and an entomologist in addition to a large staff of rangers, surveyors and fieldmen.

Of the Province's 20,743 sq. miles, about 11,555 are classed as forested. The Crown holds title to about one-quarter of this total; one-third is in holdings of 1,000 acres or more owned by about 200 companies and individual land owners; one-thirtieth is in the form of National Parks and Indian reserves; and the remainder is composed of small woodlots which for the most part are owned by farmers.

Considerable effort is expended on conservation projects, forest protection and research. Reforestation has been practised and encouraged since 1926. Large quantities of seedlings are planted each year on Crown lands and distributed to companies and individuals for private reforestation. In addition, a restriction is placed on cutting coniferous trees of a diameter of less than ten inches through the stump. The careful maintenance of many farm woodlots has resulted in a continuing source of income to rural families and has helped to retain forest cover. To establish an inventory of forest resources, the Province has conducted an aerial and ground assessment to determine tree species and land productivity.

As a deterrent to wasteful procedures, Crown lands are no longer leased for timber cutting over long periods; instead, harvesting rights on approved areas are sold by tender and restrictions placed on cutting at that time. Provincial roads are being built into these areas making them accessible for management, harvesting and fire protection.

Fire fighting costs and damage to forests have in recent years averaged \$150,000 annually. In an effort to reduce this damage, the Province operates 17 fire ranger towers; five are operated by private companies and two by the Federal Government. An aerial patrol supplements these tower stations and three stand-by fire fighting crews are maintained in addition to regular fire ranger establishments in each county of the Province. Fire fighters are well equipped with portable tools, jeeps, trucks and bulldozers. Radio contact between ground, aircraft and automobile stations provides efficient relay during the fire season.

Forest research in Nova Scotia is conducted by services of the Federal Government and the Nova Scotia Research Foundation. Investigations are being made with a view to improving stand conditions and methods of cutting and processing so as to yield a better product and better returns. Efforts are being made to hasten the development of more valuable species on land now covered with poor quality hardwood and on developing better quality softwoods. A study of production costs is expected to reveal, and eventually reduce, the hidden costs of the industry. Other projects include research on regeneration, tree diseases, insects and tree physiology.

The greatest field of endeavour in forest preservation is to educate the public to appreciate the value of forest wealth. Each of the 14 district offices promotes this ideal by means of speeches to organized bodies, motion pictures, exhibits, bulletins and leaflets.

New Brunswick.—More than 80 p.c. of the area of New Brunswick is classed as productive forest of which the Crown, in right of the Province, owns about half. About 2 p.c. is owned by the Federal Government and the remainder is privately owned. A provincial inventory, part of the national forest inventory, was begun in 1951 and the results, to be published in 1958, will indicate the nature and extent of the forests of the Province. The New Brunswick Forest Development Commission, which has been studying methods of forest administration, will present its report late in 1957.

Protection from forest fires, the first requirement for forest conservation, is mainly the responsibility of the Forest Service which also carries out duties in connection with game protection, colonization and the administration of provincial Crown lands. A large-scale aerial spraying program to protect balsam fir and spruce from the spruce budworm has been carried on since 1952 by a Crown company sponsored by the Federal and Provincial Governments and representatives of the forest products industries.

Timber licences issued by the Province authorize operators to cut and remove forest products in accordance with forest management plans and cutting permits. Stumpage dues are paid to the Province when products are cut by the licensees.

New Brunswick does not maintain a provincial forest research organization. There is, however, extensive co-operation between the Province and the Federal Forestry Branch in conducting forest research. The University of New Brunswick also has undertaken a small number of forest research projects in co-operation with the National Research Council, the Provincial Government, and other interested institutions.

Quebec.—The commercial forests of the Province of Quebec cover an area of 220,772 sq. miles extending from its southern borders to latitude 52° north, between the frontier of Labrador in the east, and the Eastmain River Basin in the west. Of this total 25,704 sq. miles are privately owned, 296 sq. miles are federal Crown forests and the remainder is provincial Crown land. Approximately 134,000 sq. miles of the latter are vacant lands. Of the 1,000,000,000 cu. feet cut in the forests of Quebec in 1955-56, privately owned forests accounted for about two-fifths.

The limits reserved for forest industries are administered by the Department of Lands and Forests and the technical work such as inventory, reforestation, superintendence of cutting, control of culling, verification of plans for development, collecting of stumpage dues, etc., is the responsibility of the Forestry Service. These limits are either leased by auction after public notice has been given, or assigned under a special law. The price of the licence is fixed by auction or by Order in Council subsequent to specific legislation. The Government reserves the right to dispose of the water powers situated on the limits leased.

A tree-felling permit, which is valid for one year, is renewable if the holder has complied with the conditions imposed; it may be transferred with the authorization of the Minister of Lands and Forests. The lessee of a limit must pay a ground rent in addition to the price of licence and must forward, three months before the cutting begins, a plan of the operations. Wood cut must be measured by a licensed culler and at the end of the operations the limit-holder must produce a sworn statement of quantities cut.

The Forest Service endeavours to promote the use of silvicultural methods among the owners of wooded farm lots and small forest areas.

Quebec's forest protective system comprises three organizations: the Protective Service, the protective associations and the non-affiliated lease holders or owners. The Protective Service is a government body established within the Department of Lands and Forests in 1924 to enforce legislation and regulations governing forest fire protection and to protect vacant Crown lands, township reserves and colonization territories.

The protective associations, of which there are six, are syndicates of lease holders and owners who have availed themselves of their right to form an association to satisfy the law which compels them to protect their limits or private forests of 2,000 acres or over. Members assume operating expenses in proportion to the area owned by each but the Department assumes half the costs of fire fighting incurred by the associations.

The third group is composed of lease holders and of owners who prefer to discharge their obligations personally as far as forest protection is concerned. They enjoy the same privileges and their obligations are the same as those imposed upon the associations.

To perpetuate the forestry program of the Province, the Department has established a number of nurseries, the first at Berthierville in 1908. This nursery has three sections: one wooded with a variety of valuable species of mature age, one serving agricultural purposes, and another devoted to forestry experiments and the cultivation of trees for reforestation or ornamentation.

More recently the Grandes Piles nursery and the Gaspé nursery were organized and nurseries in the following counties: Abitibi-East, Témiscamingue, Saguenay, Îles-de-la-Madeleine, Rimouski, Roberval, Rivière-du-Loup, Témiscouata and Chicoutimi. Their object is the preparation of plants for reforesting nearby districts. 'Floating' nurseries supervised by the engineers of the Forestry Information Bureau and intended especially for growing reforestation plants for private properties, are located at Pont-Rouge, Sherbrooke, Scott, St. Hyacinthe, Victoriaville and Mont-Joli. The plants are supplied free of charge on request. A dynamic reforestation program is now under way in the Province, with an ultimate objective of 10,000,000 plants yearly on private grounds.

The Bureau of Silviculture and Botany, and the Forestry Products Laboratory, both subsidized by the Department, are actively engaged in scientific research work in the forestry field. The Bureau studies the possibilities of utilizing spoil-heaps of gold and asbestos mines, tests the fertility of soils in the spruce groves, classifies forests according to type of vegetation, and studies growth and yields of stands in the timber limits by means of permanent research spots. The Forestry Products Laboratory, located at the Duchesnay Forestry Station, examines developments in the field of chemical conversion of wood and in the use of forestry by-products.

Ontario.—Provincial policy is directed toward the management and protection of timber lands and stabilization of the forest industry. There are 123 management units, of which 36 are large timber licences and those licensees with holdings of more than 50 sq. miles must submit management plans and inventories for their areas. Smaller management areas are integrated into 'public' working circles.

Timber cutting rights are offered for sale with priority being given to the needs of established industries. When a management plan is approved, the licensee provides a plan covering proposed operations for the ensuing year and, additionally, the Minister may require that adequate provisions be made for effective reforestation of licensed areas.

In co-operation with the Federal Government the Province has undertaken an inventory of forest resources. Field work which started in 1946 has been completed and only the final compiling and publication of reports covering Lake Simcoe, Lake Huron and Lake Erie districts remain to be done. These reports cover the agricultural area woodlots of southern Ontario and are important because farm woodlots have a little-realized capacity. For instance, in the Lake Simcoe district alone there were, in 1956, 603 factories manufacturing wood products with a selling value of \$90,000,000 and employing 9,300 persons with earnings of almost \$26,000,000. Other predominantly agricultural districts have timber resources of equal value.

An extensive reforestation program is gaining momentum each year. In 1956 almost 30,000,000 trees were planted, of which 13,000,000 were placed on Crown lands, 4,000,000 on lands managed by counties, townships and conservation authorities, and the remainder distributed to private landowners. Provincial forestry officials plan to increase the scope of reforestation each year until 100,000,000 trees are planted annually. To achieve this objective, tree nursery facilities have been extended. Four established nurseries have been enlarged and five new nurseries organized.

In addition to the reforestation and regeneration of barren lands, the forest production and maintenance program includes measures to combat damage by fire, insects and disease. To fight fire the Forest Protection Division has an efficient staff well supplied with modern equipment. Over 300 lookout towers supplemented by aerial patrols and an extensive communication system guard against forest fires. During 1956, a moderate year, there were 1,017 forest fires which destroyed \$2,870,000 of merchantable timber on Crown lands alone. The cost of fighting these fires was over \$1,175,000. Despite a growing public awareness of fire hazards in the forest, over 700 of the fires were caused by human carelessness.

The Division of Research, as a result of constant study of the factors affecting regeneration of the commercially important tree species, has achieved noteworthy results. Silvicultural treatment of yellow birch has improved germination, survival and height growth. In the white pine program, a new method of grafting has been successful, and an improved method of raising aspen seedlings has been found. Advances have also been evident in soil research and general forest genetics as well as in the development of new fire fighting techniques.

Manitoba.—The forests of Manitoba are administered by the Forest Service, a Branch of the Department of Mines and Natural Resources. The Service is headed by a Provincial Forester and the Province is divided into four Forest Districts—Northern, Southern, Eastern, and Western—each with a District Forester in charge. The Whiteshell Forest Reserve, which is an important recreational area, is also supervised by a Forester. Each Forest District is subdivided into Forest Ranger Districts of which there are 40, each in charge of a Forest Ranger.

The cutting of mature timber is governed by timber sale, licensed timber berth, pulpwood lease, or timber permit. Timber sales are disposed of by public auction and cover periods of from one to seven years. Timber berths cover certain areas granted before 1930, the date of the transfer of the natural resources from the Federal Government to the Province. Pulpwood leases are granted over an area of 2,748 sq. miles. Timber permits are granted to settlers and small operators at regulation rates for a period of one year or less.

An inventory of the forest resources of the Province was completed in 1956 as part of the conservation plan. On the basis of this inventory and other information, working plans with annual allowable cuts on a sustained-yield basis have been brought into operation in the more accessible areas.

Fire protection, as another part of the conservation plan, is one of the most important activities of the Forest Service. Fires are detected by air patrol, lookout tower and road patrol and rapid communication is maintained within the Service by radio and telephone. The Air Service also transports men and equipment to fires in areas beyond the reach of roads. While the main air base is at Lac du Bonnet, summer air bases are maintained at The Pas, Norway House, and Thicket Portage. The total area under fire protection is about 97,000 sq. miles.

Regeneration of the forest is mainly dependent on natural means although 2,800,000 trees were planted during the past five years as part of the Federal-Provincial Agreement. The Pineland Forest Nursery is operated at a point near Hadashville to supply planting stock for denuded areas of Crown land and to furnish farmers with shelterbelt and woodlot seedlings.

The Province has no forestry research organization but co-operates with several Federal services which maintain two research areas.

Saskatchewan.—The forest area in Saskatchewan, excluding water, is 120,345 sq. miles or 54.7 p.c. of the land area of the Province. The provincial forests, which account for 92 p.c. of the total forest land, are administered by the Forestry Branch of the Department of Natural Resources under the Forest Act of 1931. It is the responsibility of the Forestry Branch to devise policy that will regulate all phases of forest activity so that the people of Saskatchewan may benefit from this resource in perpetuity. Cutting timber on Crown land is the exclusive right of a Crown corporation. The annual cut in each region is limited to 5 p.c. of the estimated stand of merchantable spruce.

The policy determined by the five divisions of the Forestry Branch—Administration, Inventory, Management, Silviculture and Research—is carried out on a regional basis under the supervision of a regional superintendent who is directly responsible to the Regional Administration Branch of the Department of Natural Resources. This Branch implements the policies conceived by program branches such as the Forestry Branch. It is, however, the responsibility of the Forestry Branch to provide liaison between the Administration and the regions for implementation of new forest practices and procedures and to assess their results.

The Department of Natural Resources Conservation Branch distributes information covering all aspects of the Department's resources management programs. A large part of the Branch's work, particularly during the summer, is devoted to publicizing the activities of the Province's forest management program. The Conservation Branch operates film and lecture tours, distributes pamphlets and provides training and assistance for field staff to make everyone aware of the great value of the provincial forests and of the need for their wise use and protection.

The detection, suppression and prevention of forest fires is the responsibility of the Fire Control Division of the Regional Administration Branch of the Department. The Division maintains a network of 80 lookout towers equipped with two-way radios. In periods of high hazard, four aircraft are kept on constant patrol over areas not under tower surveillance.

To aid conservation, the great expanse of forest area has been divided into smaller, more accessible units and a system of roads and fireguards has been developed. This facilitates movement of fire fighting personnel and allows the caching of fire fighting tools at strategic locations in the forests as well as at conservation officers' headquarters. Stand-by crews are ready to move quickly and heavy equipment is available when needed. Saskatchewan has taken an interesting step in the field of fire suppression by establishing a 'smokejumper' organization. This group of 16 fire fighters, organized in 1948, is maintained primarily to parachute on fires in remote areas and to combat the blaze until other personnel can reach it.

The Department of Natural Resources, although it does not maintain a staff of forest biologists, co-operates fully with Federal authorities in investigating and controlling forest damage resulting from insects and disease.

A new research division has been organized to investigate various subjects and to establish new procedures and policies regarding forest practices. The Division is currently conducting cull studies in pulpwood stands, black and white spruce regeneration studies, and the assessment of results obtained from the mechanical thinning of jack pine stands.

Alberta.—The 151,278 sq. miles of provincial forests are administered by the Forests and Wildlife Division of the Department of Lands and Forests in Edmonton. The Division is composed of five forestry Branches under a Director of Forestry: Administration, Forest Protection, Forest Management, Forest Surveys, and Radio. A sixth Branch deals with fish and game regulations.

The Administration Branch supervises all branches, maintaining general control over revenue and expenditures, and dealing with personnel. It conducts a Forestry Training School which offers in-service training for Forest Officers and other employees.

Protection of the forests is the charge of the Forest Protection Branch and all field personnel. For ease of administration, the forested area has been divided into seven Divisions, each responsible for the forest within its boundary. These Divisions are in turn composed of Ranger Districts in which all activities are supervised by the district forest officer responsible to his divisional superintendent. The divisional staffs include an assistant superintendent, chief ranger, radio operator and seasonal help such as lookouts, stand-by fire fighting crews and labourers. These employees are responsible for fire prevention, detection and suppression as well as the supervision of logging and milling operations, timber cruising, and construction and maintenance of forestry projects.

Timber matters are dealt with by the Forest Management Branch. These include setting the standard of timber utilization, supervising the cruising and selling of timber, setting and supervising methods of cutting, ensuring efficient operation of mills, collection of Crown dues, and implementation of forest management plans. Much of the field work in connection with these duties is accomplished through the divisional staffs.

The Forest Surveys Branch is the technical forestry branch whose main charges include forest management planning, the forest inventory, and forest cover map-making for timber sale and fire damage evaluation purposes. Temporary cutting control plans have been completed for those areas south of the 57th parallel, and management plans are being prepared for the Slave Lake region. All timber will eventually be disposed of according to management plan under a system of sustained yield.

Development and maintenance of communications is the function of the Radio Branch. Central stations are maintained at Edmonton and Calgary with smaller stations located at divisional headquarters, lookout towers and Ranger Districts.

Conservation of 9,000 sq. miles of forest comprising the Rocky Mountains Forest Reserve is administered by a joint provincial-federal agency, the Eastern Rockies Forest Conservation Board with offices in Calgary. The area is composed of three 'forests' which are subdivided into Ranger Districts. The Superintendent in charge of each forest is responsible to the administrative officer in Calgary whose decisions are based on policies formed by the Board which comprises one federal and two provincial members. This Reserve is important as it includes the headwaters of the main prairie river system.

Research in general is carried out by the Forestry Branch of the Federal Department of Northern Affairs and National Resources (which maintains the Kananaskis Experiment Station) and by the Science Service of the Federal Department of Agriculture.

British Columbia.—The productive forest land of British Columbia in 1956 was inventoried at 123,176 sq. miles and in addition there were 18,538 sq. miles of forest land classed as "not satisfactorily restocked". Immature timber occurred on 59,848 sq. miles and 63,328 sq. miles carried matured timber with a total volume of 133,000,000,000 cu. feet.

Of the 123,176 sq. miles, 113,836 are owned by the Province, 8,563 are under private ownership and 777 sq. miles belong to the Government of Canada in National Parks and other tenures.

For administrative purposes, the Province is divided into five Forest Districts with regional headquarters at Vancouver, Prince Rupert, Prince George, Kamloops and Nelson. Further decentralization of authority is effected by subdivision of the Forest Districts into Ranger Districts. There are approximately 25 Ranger Districts in each Forest District. Twelve directional, servicing, or policy-forming divisions constitute the head office of the Forest Service in Victoria.

Vigorous efforts are being made to bring British Columbia's forest resources under sustained-yield management and the forest industries are making definite progress toward total utilization of their raw materials. The problem is urgent despite the fact that, with a present annual cut of approximately 1,100,000,000 cu. feet, the total inventory would appear sufficient to support present needs in perpetuity. Over half of the present cut comes from the Coast (Wet Belt) forests which also comprise the majority of the 12,321 sq. miles privately owned, leased or licensed. This area is being overcut at the present time, whereas large areas of northern forest land remain untouched.

Several systems of timber disposal are in effect. The most publicized is the Forest Management Licence which constitutes a contract between the Government and a company or individual whereby the latter agrees to manage, protect, and harvest an area of forest land for the best possible return, in exchange for the right to the timber crop on the area in perpetuity. Provincial Forests, Public Working Circles, and Sustained Yield Units are the governmental equivalent of the Management Licence with the timber, when it is ready for cutting, being disposed of by public auction. Management, silviculture, road-building and protection on such areas are the responsibility of the Forest Service. Other tenures of lesser importance are Tree Farms, Farm Woodlot Licences, and Timber Sales.

Protection of the forest, particularly from fire, is still a major problem although the public is becoming more cautious. Improved fire fighting techniques, the use of aircraft for patrol and transportation, employment of helicopters, and a gradually expanding system of lookouts are steadily cutting down fire losses. Close liaison with the Science Service of the Federal Department of Agriculture, which maintains laboratories in Vernon and Victoria, provides information about insect and fungal enemies of the forest.

British Columbia's present research policy is to establish regional centres in association with District Headquarters. Close association is maintained with the District Forester and his staff although the regional research centres are supervised directly from Victoria. Since each Forest District is mainly concerned with one of the major forest regions characterizing the Province, the regional research program within a District gives priority to studies in forest types dominant in that Forest District.

The policy of the Research Division is to undertake investigations as required by the British Columbia Forest Service in its administration and management of the forest resources of the Province. More specifically, the research policy may be briefly defined as follows:—

- (1) Investigation of silvicultural problems arising from the utilization of forest resources. These existing problems are recognized in specific forest types or regions and are a cause of present concern.

- (2) Studies in anticipation of silvicultural problems, or in anticipation of a demand for specific silvicultural information, the need for which can be predicted from the general trend of intensive forest practice, and which require long-term investigations.

- (3) Short-term investigations, generally of an expedient nature, dealing with silvicultural or management problems, for other Forest Service divisions or districts.

- (4) Sustained studies for other Forest Service divisions in fields other than silviculture.

- (5) Demonstration on a practical scale of the application of research findings for the benefit of government, industrial and private foresters, such demonstrations to be on experiment stations or other Crown lands reserved for the purpose.

The British Columbia Research Council has performed some short-range studies of specific problems, as has the University of British Columbia.

Section 6.—Forest and Allied Industries

This Section is concerned with the many industries employed in the felling of timber in the forest and its transformation into the numerous utilitarian shapes and forms required in modern living. The basic industries provide the raw material for sawmills, pulp and paper mills and for a wide range of secondary industries that convert the products of the basic industries into more highly manufactured goods such as veneers and plywoods, sash and doors, furniture, and a vast range of industries using wood in any form in their processes. These industries, especially the pulp and paper industry and the lumber industry, contribute substantially to the value of the export trade of Canada and thereby provide the exchange necessary to pay for a large share of the imports purchased from other countries, particularly the United States.

Subsection 1.—Woods Operations

In connection with operations in the woods the forests provide not only the raw materials for the sawmills, pulp mills, veneer mills, wood distillation, excelsior and other plants, but also the logs, pulpwood and bolts for export in the unmanufactured state, and fuel, poles, railway ties, posts and fence rails, mining timber, piling and other primary products that are finished in the woods ready for use or export. A number of minor forest products help swell the total, such as Christmas trees, cascara bark, balsam gum, resin, etc.

It has been estimated that operations in the woods during the logging season in 1955 gave employment amounting to 149,300 man-years and distributed \$506,000,000 in wages and salaries.

Estimates of woods operations are now calculated on an entirely new basis, and previous annual estimates have been revised as far back as 1940. The former method used the formula 'Consumption plus Exports minus Imports equals *apparent* Production' for both volume and value of each class of primary forest products. The new method attempts to give *actual* production figures for all items and is based chiefly on provincial Forest Service data for volume. Value, as presently estimated, excludes transportation costs, which formed a large part of the consumption values utilized in former calculations.

7.—Value of Woods Operations by Product 1951-55

NOTE.—The figures in this table have been calculated on a new basis and are not comparable with those published in the corresponding table of previous Year Books (*see text above*).

| Product | 1951 | 1952 | 1953 | 1954 | 1955 |
|--------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| | \$ | \$ | \$ | \$ | \$ |
| Logs and bolts for sawing..... | 339,423,424 | 344,932,434 | 331,296,157 | 345,087,657 | 393,860,833 |
| Logs for pulping..... | 29,153,333 | 28,810,263 | 28,748,017 | 33,359,100 | 38,985,790 |
| Pulpwood ¹ | 387,042,948 | 317,991,822 | 280,263,133 | 290,441,378 | 330,490,498 |
| Fuelwood..... | 40,607,056 | 33,277,041 | 38,558,073 | 36,075,799 | 34,361,586 |
| Poles and piling..... | 10,092,662 | 15,497,539 | 10,705,142 | 9,833,897 | 17,082,451 |
| Round mining timber..... | 6,300,478 | 12,208,221 | 4,665,279 | 3,998,158 | 3,432,932 |
| Fence posts..... | 1,573,533 | 2,007,683 | 1,821,996 | 1,590,369 | 2,071,988 |
| Hewn ties..... | 821,541 | 1,160,020 | 880,604 | 468,485 | 627,082 |
| Fence rails..... | 231,879 | 274,113 | 246,165 | 243,611 | 248,359 |
| Wood for distillation..... | 380,102 | 441,538 | 361,523 | 442,381 | 370,947 |
| Miscellaneous roundwood..... | 320,298 | 518,482 | 411,788 | 301,501 | 408,275 |
| Other products..... | 5,074,621 | 6,069,598 | 6,581,011 | 6,547,571 | 7,631,973 |
| Totals..... | 821,021,875 | 763,188,754 | 704,538,888 | 728,369,907 | 829,572,714 |

¹ Roundwood only; wood residues used for pulping excluded.

8.—Production and Consumption of Wood Cut in Woods Operations 1940-55, and by Product 1954 and 1955

NOTE.—The figures in this table have been calculated on a new basis and are not comparable with those published in the corresponding table of previous Year Books (see text on p. 480). Provincial details by product and province for 1940-55 on the new basis will be found in DBS Bulletin, *Annual Estimate of Operations in the Woods, 1956*.

| Year and Product | Production | | | Consumption | | |
|--|--------------------------------|---|--------------------|--------------------------------|---|--------------------|
| | Quantity Reported or Estimated | Equivalent Volume of Merchantable Wood ¹ | Total Value | Quantity Reported or Estimated | Equivalent Volume of Merchantable Wood ¹ | Total Value |
| | | M cu. ft. | \$ | | M cu. ft. | \$ |
| 1940..... | ... | 2,664,365 | 202,083,298 | ... | 2,492,912 | 168,274,952 |
| 1941..... | ... | 2,711,588 | 225,615,876 | ... | 2,520,394 | 195,233,892 |
| 1942..... | ... | 2,625,305 | 249,509,627 | ... | 2,535,514 | 222,056,222 |
| 1943..... | ... | 2,571,335 | 279,828,148 | ... | 2,314,206 | 237,199,405 |
| 1944..... | ... | 2,650,208 | 300,819,722 | ... | 2,305,324 | 263,473,033 |
| 1945..... | ... | 2,692,200 | 364,237,406 | ... | 2,280,025 | 294,169,952 |
| 1946..... | ... | 2,821,935 | 435,706,186 | ... | 2,430,609 | 359,840,731 |
| 1947..... | ... | 3,104,214 | 559,821,333 | ... | 2,603,181 | 461,009,040 |
| 1948..... | ... | 3,069,265 | 579,014,983 | ... | 2,631,388 | 513,622,093 |
| 1949..... | ... | 2,685,917 | 491,987,414 | ... | 2,607,465 | 503,320,008 |
| 1950..... | ... | 3,023,465 | 613,045,910 | ... | 2,761,909 | 558,104,116 |
| 1951..... | ... | 3,436,463 | 821,021,875 | ... | 2,922,883 | 698,113,030 |
| 1952..... | ... | 3,205,383 | 763,188,754 | ... | 2,834,719 | 705,980,443 |
| 1953..... | ... | 3,078,066 | 704,538,888 | ... | 2,903,661 | 705,452,273 |
| 1954..... | ... | 3,123,313 | 728,369,907 | ... | 2,924,832 | 693,755,990 |
| Logs and bolts for sawing.....M ft. b.m. | 7,861,825 | 1,492,233 | 345,067,657 | 7,674,597 | 1,462,176 | 299,999,556 |
| Logs for pulping....." | 756,097 | 132,317 | 33,359,100 | 2 | 2 | 35,958,001 |
| Pulpwood.....cord | 13,182,901 | 1,120,546 | 290,441,378 | 12,981,008 | 1,103,386 | 332,853,603 |
| Fuelwood....." | 3,918,258 | 313,461 | 36,075,799 | 3,904,584 | 312,367 | 35,958,001 |
| Poles and piling.....No. | 1,333,746 | 20,006 | 9,833,897 | 1,109,457 | 16,642 | 17,175,346 |
| Round mining timber.....cord | 246,943 | 23,460 | 3,998,158 | 126,661 | 12,033 | 2,343,228 |
| Fence posts.....No. | 9,183,113 | 11,019 | 1,590,369 | 7,545,249 | 9,054 | 1,810,333 |
| Hewn ties....." | 325,402 | 1,627 | 468,485 | 305,906 | 1,530 | 438,203 |
| Fence rails....." | 1,962,638 | 1,963 | 243,611 | 1,962,648 | 1,963 | 245,907 |
| Wood for distillation.....cord | 37,373 | 2,990 | 442,381 | 37,373 | 2,990 | 442,381 |
| Miscellaneous roundwood.....cu. ft. | 2,691,000 | 2,691 | 301,501 | 2,691,000 | 2,691 | 301,501 |
| Other products ²\$ | ... | ... | 6,547,571 | ... | ... | 2,687,931 |
| 1955..... | ... | 3,280,070 | 829,572,714 | ... | 3,093,255 | 746,954,072 |
| Logs and bolts for sawing.....M ft. b.m. | 8,194,023 | 1,563,135 | 393,860,833 | 8,385,763 | 1,598,202 | 345,000,352 |
| Logs for pulping....." | 874,513 | 153,040 | 38,985,790 | 2 | 2 | 35,958,001 |
| Pulpwood.....cord | 14,287,481 | 1,214,436 | 330,490,498 | 13,629,413 | 1,158,500 | 340,076,962 |
| Fuelwood....." | 3,623,387 | 289,872 | 34,361,586 | 3,610,099 | 288,808 | 34,219,666 |
| Poles and piling.....No. | 1,345,258 | 20,181 | 17,082,451 | 1,195,057 | 17,926 | 19,716,100 |
| Round mining timber.....cord | 199,412 | 18,943 | 3,432,932 | 127,500 | 12,112 | 2,358,750 |
| Fence posts.....No. | 8,922,355 | 10,709 | 2,071,988 | 7,193,627 | 8,632 | 1,248,535 |
| Hewn ties....." | 371,135 | 1,855 | 627,082 | 235,168 | 1,176 | 364,289 |
| Fence rails....." | 1,714,187 | 1,714 | 248,359 | 1,714,187 | 1,714 | 251,134 |
| Wood for distillation.....cord | 34,626 | 2,770 | 370,947 | 34,626 | 2,770 | 370,947 |
| Miscellaneous roundwood.....cu. ft. | 3,415,000 | 3,415 | 408,275 | 3,415,000 | 3,415 | 408,275 |
| Other products ²\$ | ... | ... | 7,631,973 | ... | ... | 2,939,062 |

¹ In estimating the annual drain on Canada's forest resources, certain converting factors have been used, each of which represents in cubic feet the quantity of merchantable wood used to produce one unit of the material in question. The factor for logs and bolts for the British Columbia coastal region is 175 and for the remainder of Canada 200. Other factors: pulpwood 85, fuelwood and wood for distillation 80, poles and piling 15, round mining timber 95, hewn railway ties 5, fence posts 1.2 and fence rails 1.

² Converted to rough cords and included with pulpwood.

³ Chiefly Christmas trees but also includes balsam gum, cascara bark, etc.

9.—Equivalent Volume of Solid Wood Cut and Value of Products of Woods Operations by Province 1953-55

NOTE.—The figures in this table have been calculated on a new basis and are not comparable with those published in the corresponding table of previous issues of the Year Book (see text on p. 480).

| Province or Territory | Equivalent Volume of Solid Wood | | | Value of Products ¹ | | |
|------------------------|---------------------------------|------------------|------------------|--------------------------------|--------------------|--------------------|
| | 1953 | 1954 | 1955 | 1953 | 1954 | 1955 |
| | M cu. ft. | M cu. ft. | M cu. ft. | \$ | \$ | \$ |
| Newfoundland..... | 113,890 | 99,880 | 112,392 | 28,402,444 | 24,251,832 | 28,049,693 |
| Prince Edward Island.. | 9,988 | 9,052 | 11,259 | 1,548,392 | 1,429,633 | 1,957,548 |
| Nova Scotia..... | 108,096 | 101,422 | 118,588 | 21,756,883 | 20,725,058 | 24,745,766 |
| New Brunswick..... | 190,978 | 175,948 | 202,645 | 45,214,437 | 40,593,071 | 45,929,729 |
| Quebec..... | 941,450 | 1,004,188 | 984,111 | 227,838,771 | 239,719,810 | 249,500,953 |
| Ontario..... | 504,179 | 497,261 | 542,031 | 122,224,164 | 122,759,430 | 144,476,972 |
| Manitoba..... | 60,392 | 62,035 | 56,646 | 9,096,576 | 9,940,925 | 9,486,023 |
| Saskatchewan..... | 71,680 | 65,326 | 55,225 | 7,591,213 | 8,010,511 | 7,496,533 |
| Alberta..... | 107,616 | 107,237 | 113,511 | 12,720,628 | 14,871,081 | 16,801,055 |
| British Columbia..... | 965,368 | 996,064 | 1,080,758 | 227,451,969 | 245,400,223 | 300,614,307 |
| Yukon and N.W.T..... | 4,428 | 3,900 | 2,904 | 693,411 | 668,333 | 514,135 |
| Canada..... | 3,078,065 | 3,122,313 | 3,280,070 | 704,538,888 | 728,369,907 | 829,572,714 |

¹ Includes value of forest products other than wood.

Subsection 2.—The Lumber Industry

The manufacture of sawn lumber is the second most important industry in Canada depending on the forest for its raw materials.

The total number of sawmills, tie, shingle, lath, veneer, stave, heading and hoop mills and mills for cutting-up and barking or rossing of pulpwood, reports of which were compiled for 1955, was 7,333 as compared with 7,696 in 1954. Mills sawing less than 15,000 ft. b.m. are excluded but account for less than one-half of one per cent of the total lumber production. Employees numbered 58,586 and wages and salaries amounted to \$152,556,819. Logs, bolts and other materials and supplies of the industry were valued at \$338,870,204, the gross value of production was \$644,482,990 and net value \$296,940,188.

Lumber production in Canada reached its maximum in 1955 at 7,920,033,000 ft. b.m. Average values were fairly uniform until 1916 but increased rapidly from 1917 to 1920 to decline gradually during the following years to the lowest level for the entire period in 1933. With the exception of 1938 and 1949 increases in average value took place each year from 1933 to 1951; decreases of 2.8 p.c., 4.7 p.c. and 1.5 p.c. occurred in 1952, 1953 and 1954, followed by an increase of 2.6 p.c. in 1955.

10.—Quantity and Value of Lumber Production and Value of All Sawmill Products by Province 1954 and 1955

| Province or Territory | Lumber Production | | | | Value of All Sawmill Products | |
|------------------------|-------------------|------------------|--------------------|--------------------|-------------------------------|--------------------|
| | Quantity | | Value | | 1954 | 1955 |
| | 1954 | 1955 | 1954 | 1955 | 1954 | 1955 |
| | M ft. b.m. | M ft. b.m. | \$ | \$ | \$ | \$ |
| Newfoundland..... | 30,716 | 32,691 | 1,795,559 | 1,996,166 | 2,081,838 | 2,114,437 |
| Prince Edward Island.. | 8,827 | 9,610 | 468,586 | 534,194 | 536,769 | 593,050 |
| Nova Scotia..... | 273,583 | 353,682 | 16,102,774 | 21,309,760 | 17,406,816 | 23,057,289 |
| New Brunswick..... | 227,365 | 275,186 | 14,325,913 | 17,867,953 | 17,509,665 | 20,751,935 |
| Quebec..... | 1,099,036 | 1,025,094 | 73,094,936 | 69,545,538 | 86,038,897 | 81,381,163 |
| Ontario..... | 721,742 | 759,976 | 55,511,696 | 58,654,467 | 69,286,415 | 69,872,231 |
| Manitoba..... | 44,963 | 46,627 | 2,705,720 | 2,694,833 | 3,163,501 | 3,680,222 |
| Saskatchewan..... | 85,663 | 75,233 | 4,641,824 | 4,125,631 | 4,865,045 | 4,339,875 |
| Alberta..... | 366,027 | 421,616 | 20,250,893 | 22,288,596 | 22,793,615 | 23,853,097 |
| British Columbia..... | 4,378,695 | 4,914,285 | 293,429,444 | 342,058,910 | 347,883,651 | 414,944,542 |
| Yukon and N.W.T. | 7,238 | 6,033 | 584,660 | 487,184 | 620,286 | 495,140 |
| Canada..... | 7,243,855 | 7,920,033 | 482,912,005 | 541,563,241 | 572,186,498 | 644,482,990 |

11.—Quantity and Value of Lumber Cut by Kind 1954 and 1955

| Kind of Wood | Quantity | | Value | |
|--------------------|------------------|------------------|--------------------|--------------------|
| | 1954 | 1955 | 1954 | 1955 |
| | M ft. b.m. | M ft. b.m. | \$ | \$ |
| Spruce..... | 2,204,914 | 2,550,070 | 132,345,070 | 153,821,722 |
| Douglas fir..... | 2,124,329 | 2,270,468 | 141,867,380 | 158,796,587 |
| Hemlock..... | 910,006 | 994,138 | 57,656,130 | 67,043,585 |
| White pine..... | 406,226 | 413,741 | 34,729,121 | 36,329,352 |
| Cedar..... | 479,921 | 523,382 | 42,151,851 | 47,714,814 |
| Yellow birch..... | 188,271 | 137,406 | 15,598,203 | 11,867,871 |
| Jack pine..... | 246,889 | 252,245 | 14,704,760 | 15,196,082 |
| Maple..... | 90,581 | 95,787 | 7,514,425 | 8,353,541 |
| Balsam fir..... | 193,267 | 223,841 | 11,364,979 | 13,597,112 |
| Red pine..... | 55,959 | 45,153 | 4,576,353 | 3,791,228 |
| Other kinds..... | 343,478 | 413,802 | 20,403,733 | 25,051,347 |
| Totals..... | 7,243,841 | 7,920,033 | 482,912,005 | 541,563,241 |

12.—Quantity and Value of Lumber, Shingles and Lath Produced 1947-55

NOTE.—Figures from 1908 are given in the corresponding table of previous Year Books, beginning with the 1931 edition.

| Year | Lumber | | Shingles | | Lath | |
|-----------|------------|-------------|-----------|------------|----------|-----------|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| | M ft. b.m. | \$ | Squares | \$ | '000 | \$ |
| 1947..... | 5,877,901 | 322,048,356 | 3,107,248 | 24,449,305 | 151,151 | 1,239,824 |
| 1948..... | 5,908,798 | 340,850,538 | 3,078,215 | 24,470,746 | 149,646 | 1,338,534 |
| 1949..... | 5,915,443 | 334,789,873 | 2,825,261 | 19,568,633 | 129,895 | 1,136,208 |
| 1950..... | 6,553,898 | 422,480,700 | 3,191,589 | 31,807,753 | 123,118 | 1,134,741 |
| 1951..... | 6,948,697 | 507,650,241 | 2,982,362 | 27,977,418 | 104,872 | 1,042,196 |
| 1952..... | 6,807,594 | 483,195,323 | 2,424,818 | 19,269,747 | 111,595 | 1,237,227 |
| 1953..... | 7,305,958 | 494,385,993 | 2,610,068 | 19,897,877 | 155,595 | 1,686,581 |
| 1954..... | 7,243,855 | 482,912,005 | 2,710,654 | 24,039,162 | 140,655 | 1,512,400 |
| 1955..... | 7,920,033 | 541,563,241 | 2,896,080 | 29,795,687 | 149,663 | 1,613,497 |

Lumber Exports.—Exports of planks, boards and square timber are given in Chapter XXII, Foreign Trade.

Subsection 3.—The Pulp and Paper Industry

The manufacture of pulp and paper has been the leading industry in Canada for many years and the postwar development of the industry has more than kept pace with the vast industrial growth of the nation. Pulp and paper stands first among all industries in value of production, in exports, in total wages paid and in capital invested. It is the largest consumer of electric energy and the largest industrial buyer of goods and services, including transportation, in the land. The industry has a newsprint output about four times that of any other country and provides over 50 p.c. of the world's newsprint needs. Canada is one of the world's greatest woodpulp exporters and stands second only to the United States as a producer of pulp. Thus, this Canadian industry, with 80 p.c. of its output moving abroad, ranks as one of the major industrial enterprises of the world.

There are three classes of mills in the industry. In 1956, 31 were making pulp only, 25 were making paper only and 70 were combined pulp and paper mills.

The industry includes three forms of industrial activity: operations in the woods with pulpwood as a product, the manufacture of pulp, and the manufacture of paper. Some of the important pulp companies operate sawmills to utilize the larger timber on their limits to the best advantage, and some lumber manufacturers divert a portion of

their spruce and balsam logs to pulp mills. Less than 12 p.c. of the pulpwood cut in Canada is exported in raw or unmanufactured form and a large portion of such exports is cut from private lands.

13.—Production, Consumption, Exports and Imports of Pulpwood 1940-55

NOTE.—Table compiled on a new basis; figures not comparable with those published in the corresponding table of previous Year Books.

| Year | Total Production of Pulpwood in Canada | | | Canadian Pulpwood Used in Canadian Pulp Mills | | Canadian Pulpwood Exported Unmanufactured | | Imported Pulpwood Used in Canada | |
|-------------------------|--|-------------|------------------------|---|--------------------------|---|--------------------------|----------------------------------|---------------------------|
| | Quantity ¹ | Total Value | Average Value per Cord | Quantity ¹ | P.C. of Total Production | Quantity ¹ | P.C. of Total Production | Quantity ¹ | P.C. of Total Consumption |
| | cords | \$ | \$ | cords | | cords | | cords | |
| 1940..... | 8,716,538 | 74,731,002 | 8.57 | 7,063,128 | 82.2 | 1,551,600 | 17.8 | 47,626 | 0.7 |
| 1941..... | 8,396,961 | 74,878,637 | 8.92 | 7,740,444 | 77.9 | 1,856,414 | 22.1 | 81 | — |
| 1942..... | 8,723,269 | 86,946,706 | 9.97 | 7,856,780 | 77.1 | 1,993,667 | 22.9 | 1,714 | — |
| 1943..... | 8,987,181 | 104,183,817 | 11.59 | 7,423,966 | 82.8 | 1,545,986 | 17.2 | 2,379 | — |
| 1944..... | 9,643,306 | 126,851,350 | 13.15 | 7,328,763 | 84.3 | 1,509,268 | 15.7 | 8,209 | 0.1 |
| 1945..... | 10,973,083 | 159,270,381 | 14.51 | 7,655,766 | 84.6 | 1,684,421 | 15.4 | 4,133 | — |
| 1946..... | 12,111,028 | 196,243,029 | 16.20 | 8,952,101 | 84.6 | 1,867,593 | 15.4 | 16,881 | 0.2 |
| 1947..... | 13,657,107 | 249,911,951 | 18.30 | 9,701,078 | 85.3 | 2,001,477 | 14.7 | 50,508 | 0.5 |
| 1948..... | 13,814,970 | 271,560,306 | 19.66 | 10,394,718 | 83.0 | 2,352,552 | 17.0 | 75,969 | 0.7 |
| 1949 ² | 10,308,783 | 202,544,308 | 19.65 | 10,464,990 | 84.0 | 1,644,253 | 16.0 | 5,491 | — |
| 1950..... | 13,424,358 | 280,837,687 | 20.92 | 11,406,688 | 86.7 | 1,782,134 | 13.3 | 28,220 | 0.2 |
| 1951..... | 18,151,853 | 416,196,281 | 22.93 | 12,587,792 | 84.1 | 2,893,615 | 15.9 | 46,634 | 0.4 |
| 1952..... | 14,755,089 | 346,802,085 | 23.50 | 11,960,014 | 82.9 | 2,529,353 | 17.1 | 31,060 | 0.3 |
| 1953..... | 13,545,181 | 309,011,150 | 22.81 | 12,060,853 | 86.8 | 1,783,657 | 13.2 | 48,805 | 0.4 |
| 1954..... | 14,739,571 | 323,800,478 | 21.97 | 12,875,978 | 87.6 | 1,826,193 | 12.4 | 105,030 | 0.8 |
| 1955..... | 16,087,951 | 369,476,288 | 22.97 | 13,494,496 | 88.3 | 1,882,784 | 11.7 | 134,917 | 1.0 |

¹ Given in terms of rough or unpeeled wood.

² Newfoundland included from 1949.

Pulp Production.—The manufacture of pulp, the second stage in this industry, is carried on by mills producing pulp only and also by paper manufacturers operating pulp mills in conjunction with paper mills to provide their own raw material. Such mills usually manufacture a surplus of pulp for sale in Canada or for export. Spruce, supplemented by balsam fir in the east and by hemlock in the west, is the most suitable species for the production of all but the best classes of paper.

The preliminary preparation of pulpwood is frequently carried on at the pulp mill, but there are also a number of cutting-up and rossing mills operating on an independent basis, chiefly for the purpose of saving freight on material cut at a distance from the mill or on material intended for export. Pulpwood is measured by the cord (4' by 4' by 8' of piled material). One cord of rough pulpwood contains approximately 85 cu. feet of solid wood, and one cord of peeled pulpwood 95 cu. feet.

Of the total 1956 pulp production, 85 p.c. was made in combined pulp and paper mills by companies manufacturing paper. The remainder was made for sale in Canada or for export by mills making pulp only. Over 53 p.c. was groundwood pulp and over 17 p.c. unbleached sulphite fibre, these being the principal components of newsprint paper. Bleached sulphite, bleached, semi-bleached and unbleached sulphate, soda fibre, semi-chemical, other grades and groundwood and chemical screenings made up the remainder. A considerable market has developed for screenings in connection with the manufacture of rigid insulating boards.

The manufacture of 10,733,744 tons of pulp produced in 1956 entailed the use of 14,031,855 cords of rough pulpwood valued at \$369,263,045 and the equivalent of 936,370 rough cords of other wood (i.e., sawmill chips, slabs and edgings, sawdust, butts, cores, etc.) valued at \$18,882,759. The total value of materials used in the manufacture of pulp was \$464,347,142.

14.—Pulp Production, Mechanical and Chemical, 1947-56

NOTE.—Figures for earlier years will be found in the corresponding table of previous Year Books.

| Year | Mechanical Pulp | | Chemical Fibre | | Total Production ¹ | |
|-------------------------|-----------------|-------------|----------------|-------------|-------------------------------|-------------|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| | tons | \$ | tons | \$ | tons | \$ |
| 1947..... | 4,275,269 | 147,423,552 | 2,755,977 | 251,273,372 | 7,253,671 | 403,853,235 |
| 1948..... | 4,413,513 | 168,343,496 | 2,997,281 | 310,338,614 | 7,675,079 | 485,966,164 |
| 1949 ² | 4,718,806 | 166,591,741 | 2,891,418 | 272,355,430 | 7,852,998 | 445,138,494 |
| 1950..... | 4,910,803 | 173,035,433 | 3,314,250 | 323,330,963 | 8,473,014 | 502,583,925 |
| 1951..... | 5,172,465 | 213,953,064 | 3,814,086 | 503,997,803 | 9,314,849 | 727,880,005 |
| 1952..... | 5,175,319 | 217,352,245 | 3,518,127 | 423,789,033 | 8,968,009 | 650,021,180 |
| 1953..... | 5,122,597 | 209,899,639 | 3,663,289 | 406,114,975 | 9,077,063 | 624,865,504 |
| 1954..... | 5,337,610 | 214,102,066 | 4,057,046 | 433,359,934 | 9,673,016 | 655,916,738 |
| 1955..... | 5,466,925 | 218,557,773 | 4,359,226 | 465,149,732 | 10,150,547 | 693,402,831 |
| 1956..... | 5,723,002 | 231,236,271 | 4,645,493 | 463,880,853 | 10,733,744 | 706,232,534 |

¹ Includes screenings and unspecified pulps.² Newfoundland included from 1949.**15.—Pulp Production by the Chief Producing Provinces 1947-56**

NOTE.—Figures for earlier years will be found in the corresponding table of previous Year Books.

| Year | Quebec | | Ontario | | Canada ¹ | |
|-----------|-----------|-------------|-----------|-------------|------------------------|-------------|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| | tons | \$ | tons | \$ | tons | \$ |
| 1947..... | 3,751,579 | 194,805,327 | 2,100,237 | 122,382,058 | 7,253,671 | 403,853,235 |
| 1948..... | 3,902,072 | 227,425,545 | 2,226,124 | 153,870,832 | 7,675,079 | 485,966,164 |
| 1949..... | 3,698,401 | 196,568,691 | 2,138,444 | 140,662,434 | 7,852,998 ² | 445,138,494 |
| 1950..... | 3,922,543 | 216,299,900 | 2,297,518 | 156,390,753 | 8,473,014 | 502,583,925 |
| 1951..... | 4,282,568 | 298,100,813 | 2,484,551 | 219,571,231 | 9,314,849 | 727,880,005 |
| 1952..... | 4,192,047 | 280,314,341 | 2,308,722 | 182,773,000 | 8,968,009 | 650,021,180 |
| 1953..... | 4,163,068 | 265,937,885 | 2,323,500 | 177,713,471 | 9,077,063 | 624,865,504 |
| 1954..... | 4,315,465 | 268,759,418 | 2,420,903 | 183,381,040 | 9,673,016 | 655,916,738 |
| 1955..... | 4,491,139 | 280,171,743 | 2,602,298 | 196,235,632 | 10,150,547 | 693,402,831 |
| 1956..... | 4,809,011 | 296,884,619 | 2,735,241 | 178,012,929 | 10,733,744 | 706,232,534 |

¹ Includes production in British Columbia, Manitoba, New Brunswick and Nova Scotia.² Newfoundland included from 1949.

Pulp Exports.—The chief market for Canadian newsprint and pulp is the United States. Prior to World War II this market alone absorbed about 85 p.c. of the pulp exports and 80 p.c. of the newsprint exports. In 1945 the proportions were 76 p.c. and 83 p.c. respectively and in 1956, 81 p.c. and 87 p.c.

16.—Exports of Pulp to the United Kingdom, United States and All Countries 1947-56

| Year | United Kingdom | | United States | | All Countries | |
|-----------|----------------|------------|---------------|-------------|---------------|-------------|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| | tons | \$ | tons | \$ | tons | \$ |
| 1947..... | 136,976 | 14,741,287 | 1,499,302 | 156,121,526 | 1,698,712 | 177,802,612 |
| 1948..... | 170,596 | 21,369,417 | 1,590,674 | 184,972,898 | 1,797,998 | 211,584,384 |
| 1949..... | 181,828 | 20,137,715 | 1,305,334 | 141,641,380 | 1,557,348 | 171,504,163 |
| 1950..... | 117,921 | 13,128,894 | 1,694,444 | 191,005,507 | 1,846,143 | 208,555,549 |
| 1951..... | 217,250 | 37,770,627 | 1,831,410 | 276,760,578 | 2,243,307 | 365,132,884 |
| 1952..... | 210,685 | 35,208,295 | 1,588,978 | 225,082,376 | 1,940,579 | 291,863,498 |
| 1953..... | 214,951 | 28,099,255 | 1,599,491 | 202,247,663 | 1,950,152 | 248,674,880 |
| 1954..... | 270,946 | 34,486,399 | 1,669,782 | 206,435,403 | 2,180,416 | 271,418,005 |
| 1955..... | 280,675 | 34,814,098 | 1,868,804 | 233,796,779 | 2,366,133 | 297,304,069 |
| 1956..... | 244,164 | 29,762,920 | 1,919,634 | 245,080,531 | 2,374,013 | 304,536,497 |

¹ Newfoundland included from 1949.

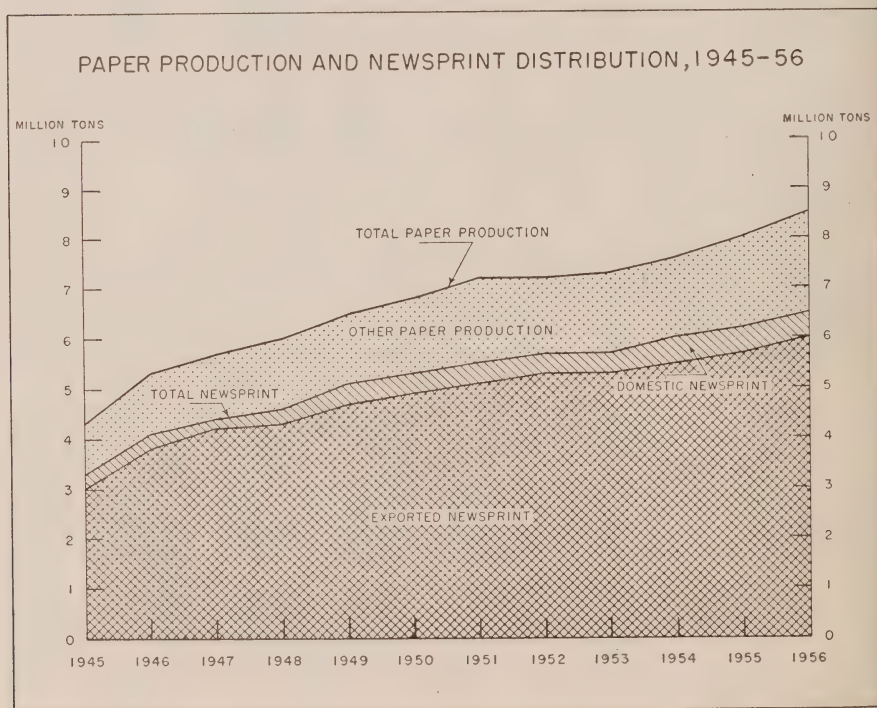
World Pulp Statistics.—Figures of production, exports and imports of pulp for certain countries of the world have again become available after the interruption caused by World War II and are shown for 1955 and 1956 in Table 17. It is estimated that these countries produce over four-fifths of the world supply of pulp.

17.—Production, Exports and Imports of Pulp by Leading Countries 1955 and 1956

(SOURCE: Canadian Pulp and Paper Association)

| Country | 1955 | | | 1956 | | |
|----------------------------------|---------------|--------------|-----------|----------------------------|--------------|-----------|
| | Production | Exports | Imports | Production | Exports | Imports |
| | '000 tons | '000 tons | '000 tons | '000 tons | '000 tons | '000 tons |
| Canada ¹ | 10,145 | 2,367 | 59 | 10,742 ¹ | 2,375 | 65 |
| United States..... | 20,740 | 634 | 2,213 | 22,118 | 531 | 2,334 |
| Finland..... | 3,026 | 1,439 | — | 3,131 | 1,444 | — |
| Norway..... | 1,498 | 767 | 37 | 1,491 | 780 | 22 |
| Sweden..... | 4,744 | 2,538 | 1 | 4,970 | 2,807 | 1 |

¹ Figures differ slightly from DBS Tables 14 and 16, p. 485, because of different bases of calculation.



Paper Production.—During 1956 there were 95 establishments producing paper and paper board in Canada. In addition to newsprint Canadian mills have a highly developed production of fine paper, wrapping paper, tissues, paper board and other cellulose products.

18.—Paper Production by Type 1947-56

NOTE.—Figures for earlier years will be found in the corresponding table of previous Year Books.

| Year | Newsprint Paper | | Book and Writing Paper | | Wrapping Paper | |
|-------------------------|-----------------|-------------|--------------------------------|------------|----------------|---------------|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| | tons | \$ | tons | \$ | tons | \$ |
| 1947..... | 4,474,264 | 355,540,669 | 210,762 | 39,727,187 | 188,742 | 26,009,996 |
| 1948..... | 4,640,336 | 402,099,718 | 231,608 | 45,178,968 | 207,128 | 31,036,805 |
| 1949 ¹ | 5,187,206 | 467,976,343 | 199,317 | 40,598,820 | 195,585 | 30,033,478 |
| 1950..... | 5,318,988 | 506,968,207 | 214,097 | 47,356,410 | 222,840 | 37,776,291 |
| 1951..... | 5,561,115 | 564,361,193 | 253,081 | 63,790,259 | 257,332 | 49,664,005 |
| 1952..... | 5,707,030 | 600,515,960 | 224,683 | 57,463,621 | 222,529 | 45,355,720 |
| 1953..... | 5,755,471 | 633,408,019 | 246,513 | 61,451,545 | 238,111 | 49,028,911 |
| 1954..... | 6,000,895 | 657,487,344 | 269,353 | 68,613,807 | 250,408 | 51,341,374 |
| 1955..... | 6,196,319 | 688,338,369 | 301,352 | 74,904,349 | 263,915 | 53,998,859 |
| 1956..... | 6,445,110 | 735,644,049 | 341,580 | 86,524,107 | 288,146 | 61,098,013 |
| | Paper Boards | | Tissue and Miscellaneous Paper | | Totals | |
| | Quantity | Value | Quantity | Value | Quantity | Value |
| | tons | \$ | tons | \$ | tons | \$ |
| 1947..... | 744,377 | 66,126,302 | 156,937 | 19,697,123 | 5,775,082 | 507,101,277 |
| 1948..... | 817,432 | 80,864,700 | 167,142 | 23,166,051 | 6,063,646 | 582,346,842 |
| 1949 ¹ | 797,023 | 80,632,075 | 160,838 | 22,219,122 | 6,539,969 | 641,459,838 |
| 1950..... | 876,894 | 92,531,711 | 179,216 | 25,521,207 | 6,812,035 | 710,153,826 |
| 1951..... | 960,493 | 113,469,950 | 193,250 | 32,744,242 | 7,225,271 | 824,029,649 |
| 1952..... | 874,582 | 106,066,622 | 172,976 | 28,702,185 | 7,201,800 | 838,105,108 |
| 1953..... | 948,955 | 114,978,277 | 187,476 | 28,991,721 | 7,376,526 | 887,858,473 |
| 1954..... | 940,196 | 117,172,691 | 188,755 | 30,975,427 | 7,649,607 | 925,590,643 |
| 1955..... | 1,027,441 | 130,365,751 | 211,186 | 33,831,919 | 8,000,213 | 981,439,247 |
| 1956..... | 1,173,087 | 147,967,340 | 218,862 | 39,258,846 | 8,466,785 | 1,070,492,355 |

¹ Newfoundland included from 1949.

Quebec produced over 48 p.c. of the total paper made in 1956, Ontario over 27 p.c., British Columbia about 9 p.c. and Nova Scotia, New Brunswick, Manitoba and Newfoundland the remaining 15 p.c.

19.—Paper Production by Province 1955 and 1956

| Province | 1955 | | 1956 | |
|--|------------------|--------------------|------------------|----------------------|
| | Quantity | Value | Quantity | Value |
| | tons | \$ | tons | \$ |
| Quebec..... | 3,789,087 | 453,543,730 | 4,074,317 | 501,614,263 |
| Ontario..... | 2,225,109 | 298,099,787 | 2,337,501 | 324,446,472 |
| British Columbia..... | 725,096 | 86,193,930 | 750,445 | 89,281,869 |
| Nova Scotia, New Brunswick, Manitoba and Newfoundland..... | 1,260,921 | 143,601,800 | 1,304,522 | 155,149,751 |
| Totals..... | 8,000,213 | 981,439,247 | 8,466,785 | 1,070,492,355 |

FORESTRY

Exports of Newsprint.—Total exports of newsprint from Canada in the years 1947-56 are given in Table 20.

20.—Exports of Newsprint to the United Kingdom, United States and All Countries 1947-56

| Year | United Kingdom | | United States | | All Countries | |
|-------------------------|----------------|------------|---------------|-------------|---------------|-------------|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| | tons | \$ | tons | \$ | tons | \$ |
| 1947..... | 55,520 | 4,623,491 | 3,675,349 | 291,892,729 | 4,220,779 | 342,293,158 |
| 1948..... | 60,690 | 5,319,660 | 3,917,366 | 310,334,045 | 4,328,084 | 383,122,743 |
| 1949 ¹ | 108,213 | 9,930,070 | 4,346,414 | 395,259,575 | 4,789,296 | 440,054,067 |
| 1950..... | 19,095 | 1,861,980 | 4,724,937 | 463,155,927 | 4,938,069 | 485,746,314 |
| 1951..... | 72,205 | 7,488,187 | 4,774,947 | 496,852,197 | 5,112,061 | 536,372,498 |
| 1952..... | 131,005 | 14,575,722 | 4,850,962 | 534,372,859 | 5,327,430 | 591,790,209 |
| 1953..... | 158,108 | 18,237,016 | 4,917,216 | 564,464,267 | 5,375,251 | 619,033,394 |
| 1954..... | 250,185 | 28,639,166 | 4,866,649 | 558,633,675 | 5,521,530 | 635,669,692 |
| 1955..... | 286,343 | 33,013,480 | 5,027,767 | 578,322,418 | 5,763,167 | 665,876,987 |
| 1956..... | 347,905 | 41,531,514 | 5,218,911 | 615,941,551 | 5,967,194 | 708,384,822 |

¹ Newfoundland included from 1949.

World Newsprint Statistics.—Since 1913 Canada has led the world in the export of newsprint. Figures for the leading producing countries for the two latest years available are given in Table 21; 1939 figures are included for comparative purposes. The six countries listed accounted for 76 p.c. of the estimated world production in 1956, Canada contributing about 50 p.c.

21.—Estimated World Newsprint Production and Exports by Leading Countries 1939, 1955 and 1956

(Source: Newsprint Association of Canada)

| Country | Production | | | Exports | | |
|---|--------------|--------------|--------------|--------------|--------------|--------------|
| | 1939 | 1955 | 1956 | 1939 | 1955 | 1956 |
| | '000 tons | '000 tons | '000 tons | '000 tons | '000 tons | '000 tons |
| Canada (including Newfoundland)¹..... | 3,175 | 6,064 | 6,243 | 2,935 | 5,805 | 5,972 |
| United States..... | 839 | 1,552 | 1,717 | 13 | 207 | 152 |
| United Kingdom..... | 848 | 694 | 720 | 42 | 155 | 152 |
| Finland..... | 550 | 590 | 657 | 433 | 526 | 588 |
| Sweden..... | 306 | 399 | 457 | 199 | 218 | 274 |
| Norway..... | 222 | 183 | 191 | 188 | 140 | 149 |

¹ Figures differ slightly from DBS figures given in Tables 18 and 20, because of different bases of calculation.

Statistics of the Combined Pulp and Paper Industries.*—The manufacture of pulp, the manufacture of paper and the manufacture of products made of paper may, under certain conditions, be treated as three industries for they are frequently carried on in separate plants by entirely independent companies. The manufacture of basic stock and the converting of this paper into stationery and other highly processed paper products are often combined in one plant. This conversion of paper within the pulp and paper industry represents only a small part of Canada's production of converted paper and boards, the bulk of which is still made in special converting mills classified in other industrial groups.

* See Chapter XV for further particulars regarding the pulp and paper and paper-converting industries.

The presence of these different combinations in one mill makes it difficult to separate many of the statistics relating to the manufacture of pulp, basic paper and converted paper products. All converting operations carried on in paper mills in this industry are attributed to the particular industrial group of converting plants to which they properly belong. Including manufacturing operations as far as the basic paper-making stage there were altogether 125 mills in operation in 1955—the same number as in 1954. The employees numbered 62,205 and their salaries and wages amounted to \$265,298,119, as against \$252,598,383 the previous year. If the pulp made for their own use in combined pulp and paper mills is disregarded the total value of materials and supplies used in the industry as a whole can be considered as amounting to \$546,079,192 in 1955, \$515,257,595 in 1954 and \$499,350,994 in 1953; the gross value of production as \$1,326,938,138 in 1955, \$1,241,558,451 in 1954 and \$1,179,665,443 in 1953 and net valuation of production \$689,818,173 in 1955, \$641,517,070 in 1954 and \$599,934,934 in 1953.

The pulp and paper industry is one of the leading single manufacturing industries in Canada. In 1955 as in 1954 it was first in net value of production, in gross value of production, in employment and in salaries and wages paid. The manufacturing stages only of the industry are considered in these comparisons, no allowance being made for capital invested, men employed, wages paid or primary products sold in connection with the woods operations. These form an important part of the industry as a whole but cannot be separated from woods operations carried on in connection with sawmills and other industries. In world trade, pulp and paper are generally Canada's main commodities—newsprint alone, over a considerable period, has brought Canada more export dollars than wheat, nickel or any other single commodity.* The United States market absorbs annually over 83 p.c. of all pulpwood exports and over 84 p.c. of the pulp and the paper shipments of Canada. About 50 p.c. of the paper consumed in the United States is either of Canadian manufacture or is made from wood or pulp imported from Canada.

THE PULP AND PAPER RESEARCH INSTITUTE OF CANADA†

The Pulp and Paper Research Institute of Canada is a centre of research and learning, concerned with virtually every aspect of the production and use of pulp and paper products and with the training of McGill postgraduate students in fundamental research fields of interest to the pulp and paper industry. The Institute staff carries out applied research in the fields of woodlands operations and pulp and paper mill operations, and fundamental research in support of these fields; the graduate students work towards master's and doctorate degrees in physical chemistry, wood chemistry, chemical and mechanical engineering.

Facilities, therefore, include laboratories for pulp and paper testing and for chemical, physical, radio-chemical, chemical engineering and mechanical engineering research including hydraulics; a pilot plant for chemical pulping, pulp and chip refining, and waste liquor pyrolysis; a library on pulp and paper and related subjects; photographic and microscopic services; and a woodlands research department. At present the Institute has a permanent staff of about 160.

Established in 1913 as a branch of the Dominion Forest Products Laboratories, the Institute was re-organized in 1927 under the joint sponsorship of the Canadian Pulp and Paper Association, the Federal Government, and McGill University. Since then the Institute has occupied a building erected by the pulp and paper industry, but an additional building of modern design is being constructed at Pointe Claire on the western outskirts of Montreal by the Government of Canada in lieu of its annual financial grants. It will cost \$2,225,000 and will house Institute staff and facilities at present scattered about the McGill campus in temporary quarters. One wing of the building will contain laboratories typical of a college chemistry building, another will provide laboratories for engineering research, and a third will provide for administrative offices.

* For reasons given in Section 1, Part II of the Foreign Trade Chapter, gold is excluded from Canadian trade statistics.

† Prepared by Mr. Rielle Thomson, Information Manager, Canadian Pulp and Paper Association, Montreal, Que.

The Institute's research activities comprise a basic program, contract research, and technical services. The basic program is supported by assessments from the Maintaining Membership (some 40 companies, representing more than 100 mills and about 90 p.c. of the total production of the Canadian industry), by a basic grant from the Canadian Pulp and Paper Association, and by appropriations from McGill University (primarily for student work). It comprises research of interest to the industry broadly, as distinct from that which is the concern only of a single company or a small segment of the industry.

The projects in the basic program range from studies of the growing seedling in the forest to the converted pulp and paper product. The emphasis is, however, primarily on fundamental and exploratory studies. The Institute is regarded as a centre for broad, long-range and uninterrupted studies of basic principles which individual pulp and paper companies would find difficult to justify in terms of immediate applied objectives. Moreover, the Institute is a centre of highly specialized equipment and manpower which individual companies would not be in a position to keep occupied on a continuous basis.

In addition to its permanent staff, the Institute, in co-operation with McGill University, has some 25 graduate students working on fundamental projects in the background of pulp and paper technology, which also serve as their thesis topics. The head of the Institute's Wood Chemistry Division, who is also E. B. Eddy Professor of Industrial and Cellulose Chemistry at McGill, directs graduate student work on such subjects as the behaviour of the materials of which wood is made—cellulose, lignin, resins, sugars, and other carbohydrates. The head of the Institute's Physical Chemistry Division, also a Research Associate in the McGill Chemistry Department, directs graduate student work in the physical chemistry of fibres, e.g., the forces which cause cellulose fibres in a water suspension to mat together to form paper. The head of the Institute's Chemical Engineering Division, also Associate Professor of Chemical Engineering at McGill, directs graduate students in such chemical and mechanical studies as the friction losses occurring when pulp flows through pipelines.

In addition to its basic program of research, the Institute undertakes contract research projects for individual companies or groups of companies in the pulp and paper or allied fields. The larger of these co-operative contracts have been concerned with problems of particular segments of the Canadian pulp and paper industry, such as the investigation into the causes of corrosion in alkaline pulping equipment, and the current project investigating the rapid deterioration of paper machine wires.

A further function of the Institute is to provide a broad range of technical information services to the industry and, to some extent, to other industries and the public. It maintains a specialized library for this purpose which supplies bibliographies, abstracts, translations, and critical reviews to the scientific staff and the industry.

In addition to its own program, the Institute co-operates with outside agencies in special projects. It maintains close liaison with the National Research Council and, in the past, has carried out joint projects with the Applied Chemistry Division and other Divisions of that organization. At present the Institute is engaged in a practical study of spruce regeneration in mixed wood stands, co-operating with two pulp and paper companies, a research foundation, and federal and provincial government departments.

Some of the major projects in the Institute's basic program are briefly outlined in the following paragraphs.

Woodlands Research.—Institute research in this field includes silvicultural studies of forest regeneration, such as forest seeding and planting techniques and the use of growth stimulants, biological studies of insect control, and engineering studies of wood harvesting methods. A major part of woodlands research is in this latter field such as the project on full-tree logging, a method which involves felling and transporting the whole tree from the stump to a central point where it is processed to pulpwood, and where by-products from bark and slash may be made. The basic study of the forces involved in pulpwood

holding grounds will make possible accurate engineering design of the component structures. This project has already developed much of the information required for transverse holding grounds, and is proceeding to the study of parallel holding grounds.

Mechanical Pulping.—A process consisting of grinding wood at low energy and subsequently refining the rejects is being studied as a possible way of reducing energy consumption and improving the products. A basic study of grinding is under way to determine the fundamentals governing the mechanical separation of paper-making fibres from the parent wood. This may lead to a new or improved process for producing mechanical pulp.

Chemical Pulping.—Of particular importance to the field of resources conservation is the Institute's development work in high-yield pulping processes aimed at recovering the greatest possible weight of usable wood fibres from each unit of wood. Experiments on the use of hardwoods in paper-making, to supplement or to supplant the traditional softwoods, are being made. A major change in pulp and paper technology, in which the Institute is providing basic data, concerns new methods of chemical pulping that will permit continuous rather than batch processing.

Paper-Making Studies.—Studies of paper formation, and investigations on the influence of fibre properties on the initial strength development of paper webs, are being carried out. The effect of fibre flocculation on the behaviour of fibre suspensions and the uniformity of paper is being studied to elucidate the mechanism involved in the aggregation of fibres under paper-making conditions.

Process Control.—The Institute carries out research on improving production control and product quality which involves modifying existing control methods and developing new ones. Related to this has been the development of new instruments, among which have been the *Canadian Standard Freeness Tester*, the *PAPRIC Electronic Dirt Counter*, the *Johnson Fibre Classifier*, the *Chapman Smoothness Tester* and the *Reference Electrode* for the continuous measurement of the actual *pH* at the high temperatures and pressures existing inside the pulping digester. At present, a recording flow instrument is being developed for rapid and continuous measurement of lignin concentration in cooking liquors by ultra violet absorption.

Waste Utilization.—The disposal, and if possible the utilization, of all types of waste from the industry—bark, liquor, slash, etc.—has been a major concern of this Institute since its inception. One of the most promising new developments in this line is the *Atomized Suspension Technique*. Solutions or slurries to be treated are atomized into the top of a tower with heated walls, thus creating a finely divided suspension of droplets in their own vapour, which evaporates to dryness and can then be subjected to pyrolysis or other chemical reactions within the same tower. The application of this technique has already been successfully tested on the small pilot-plant scale in the recovery of chemicals and heat from kraft, soda, neutral sodium semi-chemical and acid sodium sulphite spent liquors, and it has also been tested on other mill wastes, ore slurries, fine chemicals, and mineral solutions. It is expected that ultimately the Institute-developed equipment will be widely used in processing not only industrial but also sanitary wastes, which will assist in reducing the contamination and pollution of the nation's waterways. Plans are already being carried forward to test this last application on the pilot-plant scale.

Subsection 4.—The Veneer and Plywood Industries*

The production of hardwood plywood in Canada is confined largely to the eastern provinces. Changes in manufacturing methods applied to hardwood plywood resulted in its adaptation to many uses, particularly to attractive wall finishes for homes and other buildings, flush doors, radio and television cabinets and other home and office furniture.

* Prepared by the Forest Products Laboratories, Forestry Branch, Department of Northern Affairs and National Resources, Ottawa.

Softwood plywood is produced almost entirely in British Columbia. Douglas fir is most commonly manufactured because of the availability of large diameter logs of this species from which large sheets of clear veneer can be obtained. The use of synthetic resin adhesives is responsible for this product that has become almost indispensable to the construction industry—for wall panels, concrete forms, roofing, sheeting, house sub-floors; for construction of silos, cribs and caissons; for box-car linings, bus bodies, trailers, power driven and other types of watercraft; for box panels and crate linings, case goods and core-stock for furniture; for plywood-faced doors and for many other uses.

The heating of glued veneers in moulds by high-frequency electric fields (dielectric heating) permits the manufacture of shaped plywood which is now being used for furniture, radio cabinets and similar products. The possibilities of this development are becoming more widely appreciated.

Veneers of Canadian manufacture are not confined to species native to Canada. A number of imported woods of special decorative value are veneered successfully and provide the furniture industry with a wide choice of finishes. Exports of veneer and plywood produced in Canada increased in value from \$969,256 in 1938 to a high of \$30,103,676 in 1955, but declined to \$29,020,281 in 1956.

22.—Veneer and Plywood Produced for Sale by Type 1952-55

| Type | 1952 | 1953 | 1954 | 1955 |
|--|----------------|----------------|----------------|------------------|
| Veneer (1/10 inch Basis)..... M sq. ft. | 412,751 | 577,504 | 495,222 | 643,213 |
| § | 11,999,203 | 17,639,735 | 14,464,264 | 18,437,625 |
| Domestic softwood..... M sq. ft. | 185,654 | 265,222 | 214,005 | 318,572 |
| § | 2,343,415 | 3,194,222 | 2,491,706 | 3,817,678 |
| Domestic hardwood..... M sq. ft. | 217,550 | 296,986 | 276,096 | 315,564 |
| § | 8,863,025 | 13,039,291 | 11,560,934 | 13,881,934 |
| Imported wood..... M sq. ft. | 9,547 | 15,296 | 5,121 | 9,077 |
| § | 792,763 | 1,406,222 | 411,624 | 738,013 |
| Plywood (1/4 inch Basis)..... M sq. ft. | 595,038 | 779,051 | 888,499 | 1,159,760 |
| § | 49,909,515 | 66,256,470 | 66,971,822 | 82,593,534 |
| Domestic softwood..... M sq. ft. | 464,417 | 628,621 | 724,799 | 956,235 |
| § | 32,418,606 | 44,718,998 | 45,985,321 | 57,188,234 |
| Domestic hardwood..... M sq. ft. | 126,007 | 142,926 | 151,003 | 189,540 |
| § | 16,131,288 | 19,053,363 | 18,303,554 | 22,163,977 |
| Imported wood..... M sq. ft. | 4,614 | 7,504 | 12,697 | 13,985 |
| § | 1,359,621 | 2,484,109 | 2,682,947 | 3,241,323 |

Subsection 5.—The Wood-Using Industries

The wood-using group comprises thirteen industries,* other than sawmills and pulp mills, using wood as their principal raw material. Most of these industries obtain from the sawmills the wood they transform into planed and matched lumber, boxes, barrels, furniture, caskets and other manufactured or semi-manufactured products but the veneer and plywood and excelsior industries usually manufacture their products direct from logs and bolts.

This wood-using group does not include every industry into which wood enters as a raw material but only those producing commodities where the chief component is wood. There are a number of industrial groups in which wood is an important raw material as in the manufacture of agricultural implements, musical instruments, etc., and others such as the manufacture of machinery in which wood is necessary but only in comparatively small proportions.

* Furniture; sash, door and planing mills; veneer and plywood; hardwood flooring; boxes, baskets and crates; wood-turning; coffins and caskets; cooperage; woodenware; lasts, trees and wooden shoe findings; beekeepers' and poultrymen's supplies; excelsior; and other wood-using industries.

Wood is used indirectly in the manufacture of all-metal products such as wooden patterns and wooden foundry boxes in making metal castings. Wood in the form of barrels, boxes and other containers also enters into the distribution of commodities of all kinds.

In 1955 the wood-using group, comprising 4,471 establishments, gave employment to 75,087 persons and paid out \$201,883,078 in salaries and wages. The gross value of its products was \$730,860,564 and the net value \$334,917,793.

The importance of secondary industry in providing employment will be appreciated when it is noted that the number of employees in the wood-using group was more than 75,000, as compared with sawmills with approximately 58,000 employees and pulp and paper with about 62,000 in 1955.

23.—Wood Used by Wood-Using Industries 1952-55

| Item | 1952 | 1953 | 1954 | 1955 |
|---|--------------------------|--------------------------|--------------------------|--------------------------|
| Sawn lumber.....M ft. b.m. \$ | 2,049,314 145,056,681 | 2,073,065 147,031,589 | 2,054,525 143,723,883 | 2,400,525 171,369,570 |
| Sawlogs, veneer logs, flitches, butts and crochets. M ft. b.m. \$ | 312,421 26,100,966 | 377,420 31,920,920 | 378,572 30,493,926 | 480,705 39,979,594 |
| Veneers and plywoods..... M sq. ft. \$ | 302,971 20,537,175 | 378,815 26,738,490 | 337,754 25,320,813 | 393,762 30,074,481 |
| Other wood used..... \$ | 7,040,180 5,959,593* | 5,959,593* | 4,856,318 | 5,155,601 |
| Totals..... \$ | 198,735,002 | 211,650,592* | 204,394,940 | 246,579,246 |

Subsection 6.—The Paper-Using Industries

The paper-using group comprises three industries* engaged primarily in manufacturing commodities of paper and paperboard. Establishments engaged in printing, publishing, bookbinding and the allied graphic arts also consume large quantities of these materials but under the standard industrial classification adopted by the Dominion Bureau of Statistics in 1948 they are grouped separately.

Some paper-using establishments purchase paper as a raw material from the pulp and paper industry and merely subject it to some form of treatment to fit it for further manufacture in some other industry. This occurs in the manufacture of coated, sensitized or corrugated paper. Other firms purchase paper and subject it to some treatment to fit it for a definite final use such as in the manufacture of asphalt roofing or waxed wrapping paper. Another large group uses paper and paperboard as a raw material for conversion into paper bags, boxes, envelopes, laminated wallboard and other commodities.

The manufacture of containers and packages of various kinds has grown very rapidly since ways have been found of converting tough and cheap paper stocks into strongly made boxes which compete very favourably with the wooden crates and packing cases used formerly. Small attractive paper containers for use in the retail trade are growing in favour and constitute an important branch of the paper-using industries.

Composition roofing and sheathing, consisting of paper felt saturated with asphalt or tar and in some cases coated with a mineral surfacing, is being increasingly used as a substitute for metal roofing, wooden shingles and siding materials. Wood-fibre building boards, some of which are produced by lamination in the paper-using industries, are now used extensively in construction, especially for insulating purposes, replacing lumber and wood lath.

* Paper boxes and paper bags; roofing paper; miscellaneous paper goods.

The growth of the paper-using industries in Canada since 1923 reflects these developments. In 1923 the 152 establishments in this group employed 6,870 persons, distributed \$7,442,102 in salaries and wages and produced goods valued at \$31,760,948. In 1955 these industries comprised 455 plants, provided employment for 27,545 persons whose earnings totalled \$84,478,930 and produced products worth \$427,160,367.

Subsection 7.—Printing, Publishing and Allied Industries

The printing trades group is made up of five closely related industries: printing and publishing, comprised of publishers who operate printing plants; printing and bookbinding, including general or commercial printers and bookbinders; lithographing, comprised of plants specializing in that process; engraving, stereotyping and electrotyping, including photo-engraving; and trade composition or typesetting for printers. A sixth industry covering publishers of periodicals who do not print their own publications has been included since 1949. Although strictly speaking these publishers are not manufacturers, they are closely related to the printing trades which produce the plates, cuts, etc., and print newspapers, magazines, directories, yearbooks, almanacs, house organs and other periodicals for them.

In 1955 the manufacturing printing trades employed 64,025 persons whose earnings totalled \$222,206,780. Their output was valued at \$562,538,358 and the raw materials used and services received cost \$172,832,967.

Periodicals valued at \$236,928,550 accounted for about 42 p.c. of the value of printed matter and other products, daily newspapers alone contributing \$170,656,504. The value of periodicals is made up of \$174,704,296 received from advertising and \$62,224,254 received from subscriptions and sales of publications. In addition, the 1,617 publishers in the sixth industry reported revenues of \$34,072,222 from advertising and \$11,173,763 from sales of publications.

CHAPTER XI.—MINES AND MINERALS

CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

Section 1.—Canada's Mineral Industry 1956-57*

Canada's thriving mineral industry reached its greatest rate of expansion in 1956, the most prosperous year in the industry's history. During the period under review, January 1956 to the end of June 1957, mineral development activity was centred mainly on a tremendous program of mine development and of plant construction. While the full impact of the resulting expansion in productive capacity remained to be felt, the program added greatly to the industry's economic status in 1956. The value of mineral output rose 15 p.c. over 1955 to a new high of \$2,068,000,000 or 7 p.c. of the value of Canada's gross national product for that year. A major contributor to Canada's export trade, the industry vied with forestry for top place in value of production exported. Foreign sales of primary ores, metals and minerals reached a value of \$1,300,000,000 and made up nearly 30 p.c. of the country's exports of all commodities. Crude petroleum exports exceeded \$100,000,000, three times that of 1955 while exports of iron ore rose 45 p.c. to \$144,443,000; developments under way in the non-ferrous base-metal field will make large new supplies of these metals available for export.

Of much significance to Canada's economic growth have been the rapid proving-up and development of its great wealth of iron ore and of its energy resources of crude petroleum, natural gas, and uranium. Crude petroleum production rose to a record 170,570,000 bbl. in 1956 and the first western Canadian oil reached Toronto markets with the extension of the Interprovincial pipeline from Sarnia to that area. Natural gas from the rich Fort St. John area of northeastern British Columbia will flow into southern British Columbia markets and into the United States to add millions to the value of Canada's export trade with the completion in 1957 of the \$152,000,000, 650-mile Westcoast Transmission natural gas pipeline. Eastern Canada is scheduled to be served with western Canadian gas for

* Except where otherwise indicated, this review was prepared under the direction of Dr. Marc Boyer, Deputy Minister of the Department of Mines and Technical Surveys, by Mary J. Giroux of the Department's Editorial and Information Staff.

industrial and domestic use late in 1958 by the Trans-Canada pipeline now under construction. Canada has a new major source of export revenue in its uranium industry, headed as it is toward an output value rate of well over \$300,000,000 annually by 1958. It has another major source of export dollars in its huge tonnages of low-grade iron ores which are attracting the attention of United States and European steel interests.

The high rate of mineral development activity continued throughout 1956. Early in 1957, however, a slackening in demand for metals and minerals resulted in a weakening in price structures particularly of copper, lead and zinc. This became more evident as the year progressed and production of these metals in 1957 was expected to be at lower levels than in 1956. Nickel markets remained firm, however, despite the action of the United States in releasing stockpile quotas for civilian use. Premium price markets disappeared and nickel sold at the standard price set by The International Nickel Company of Canada Limited—70 cents (Canadian) a pound.

While immediate prospects for copper, lead and zinc and some of the other metals and minerals were rather uncertain at the end of the review period, the long-term outlook for the industry as a whole appeared favourable. There was little doubt that the momentum of growth that had been set up within the industry by the expenditure of huge capital sums on the large-scale development of mineral resources would support continued prosperity in the immediate future, and that, in the long-term view, the increasing demand for metals and minerals, generated both at home and abroad by increases in population and steadily rising living standards, would ensure the industry's prosperity in years to come.

Subsection 1.—The Metals

The tremendous growth of the mineral industry was evident in every phase of endeavour but was greatest in metal mining where capital outlays amounting to hundreds of millions of dollars were made to increase productive capacity, particularly of copper, nickel, uranium and iron ore. In the Blind River uranium area, some \$300,000,000 to \$350,000,000 was spent from 1953 to mid-1957 on preproduction development alone. During the review period, the most significant event was the announcement by International Nickel to proceed with the development of its huge nickel deposits in the Mystery Lake-Moak Lake area of northern Manitoba. Meanwhile, widespread exploratory activity resulted in new claim-staking records in British Columbia, Manitoba and Quebec and a number of important finds were made ranging from lead and zinc in Yukon to nickel in Ungava.

The value of metal production in 1956 rose to a record \$1,134,354,000, a 13-p.c. increase over 1955 and 9 p.c. greater than the total value of Canada's mineral output in 1950. Under the stimulus of high prices, copper production increased to 706,586,000 lb., 8 p.c. higher than in 1955 and than the previous record established in 1940. Iron ore jumped 38 p.c. to 20,113,000 long tons and nickel 2 p.c. to 355,986,000 lb. Gold, lead and zinc showed declines in output, gold decreasing 4 p.c. below 1955 to 4,379,000 oz. t., lead 8 p.c. to 373,350,000 lb., and zinc 2 p.c. to 847,240,000 lb. In value, copper was up \$52,000,000, iron ore \$46,000,000, uranium \$14,000,000, and nickel and zinc, each \$7,000,000.

Several important developments during the review period served to underline the great growth potential of the industry. The signing of contracts by Eldorado Mining and Refining Limited, the Crown purchasing agent, with 18 uranium companies covering the sale of over \$1,500,000,000 worth of uranium precipitates by Mar. 31, 1963, is expected to give Canada 24 operating uranium concentration plants, handling about 45,000 tons of ore daily by 1958. The continued expansion of the country's nickel-producing capacity and International Nickel's development of its Mystery Lake-Moak Lake nickel project indicate a nickel production for Canada of some 470,000,000 lb. by 1961, 20,000,000 lb. greater than the 1956 world production (exclusive of Soviet countries). The great growth in iron ore production from high-grade properties coupled with Canada's possession of huge tonnages of ores amenable to beneficiation have already raised Canada to sixth place in world production and point to an output of between 45,000,000 tons and 60,000,000 tons by 1965.

Exports of the four principal non-ferrous base metals in all forms continued to go mainly to United States and were valued at \$537,686,829 in 1956, a \$39,560,000 increase over the previous year. Exports, in primary forms, of copper increased from 194,764 tons in 1955 to 215,837 tons in 1956 and of nickel from 173,880 tons to 176,838 tons, but exports of lead decreased from 150,867 tons in 1955 to 129,607 tons in 1956, and of zinc from 404,422 tons to 383,041 tons. The United States bought, in primary forms, 30 p.c. more copper in 1956 than in the previous year, 3 p.c. more zinc, 3 p.c. less nickel and 30 p.c. less lead. The United Kingdom bought, in primary forms, 7 p.c. less copper, 12 p.c. less lead, 32 p.c. less zinc and about the same amount of nickel.

Base metal prices were generally high in January 1956 and, with the exception of copper, remained fairly steady throughout the year. During the first half of 1957, however, a slackening in demand led to a decline in prices and in June 1957, at the end of the period under review, the prices of copper, lead and zinc in particular had fallen off considerably. Copper showed the greatest fluctuation, rising from 43 cents a pound in January 1956 to 46 cents a pound in February 1956 then declining to 45.375 cents in June and to 35 cents in October 1956, closing the year at 34.750 cents a pound. In 1957 it dropped steadily to 27.88 cents by the end of June that year. Zinc remained at 13.50 cents a pound throughout 1956 and until May 1957 when it dropped to 11.50 cents a pound and then to 10.50 cents a pound at the end of June 1957. Lead was 15.62 cents a pound in January 1956 and 15.50 cents a pound during the remainder of 1956. In January 1957 it dropped to 15.25 cents a pound, remaining there until May when it dropped again to 14.75 cents a pound and to 13.25 cents a pound at the end of June 1957. Nickel was 63 cents (Canadian) a pound in 1956 until December when it was raised to 70 cents a pound.

The decline in prices was followed by a drop in the production of several of the metals. During the first six months of 1957, copper decreased 4 p.c. in volume of output below that of the same period in 1956 to 335,688,000 lb.; lead, 2 p.c. to 182,878,000 lb.; and zinc, 9 p.c. to 391,618,000 lb. Nickel, however, rose 6 p.c. to 190,732,000 lb. and iron ore 3 p.c. to 5,837,000 long tons.

Accounts of developments in metal mining on a regional basis follow.

British Columbia.—Canada's major source of lead and zinc, British Columbia draws around 56 p.c. of the total value of its mineral production from these two metals. Output comes mainly from the famous Sullivan mine of The Consolidated Mining and Smelting Company of Canada Limited at Kimberley, the largest lead-zinc-silver mine in the world. The Province's metal production also comprises copper, silver, gold, tungsten concentrates, and iron ore, in order of value, and minor amounts of antimony, bismuth, cadmium, indium and tin. British Columbia ranks fourth among the provinces and territories in value of mineral production and is the only Canadian source of antimony, indium and tin.

Highlights of the period under review were: the expenditure of large capital sums on the development of the natural gas and crude petroleum industries in the northeastern part of the Province; the exploration for and development of copper properties in various areas, and an unequalled amount of exploratory activity for new sources of mineral wealth.

Of much significance to the future development of British Columbia's metal-mining industry and to the Province's whole industrial potential were the continued disclosure of great quantities of natural gas, the discovery in commercial quantities of crude petroleum in the Peace River area, and the outstanding progress made toward marketing this gas in southern British Columbia and in the United States. (Developments in natural gas and crude petroleum in the Province are described in a separate article on p. 510.)

Higher average prices for lead and zinc contributed greatly to the record value of \$199,318,000 of the Province's mineral output in 1956, a 5-p.c. increase over the record set in the previous year. Zinc output increased from 431,772,000 lb. valued at \$58,937,000 in 1955 to 443,711,000 lb. valued at \$65,714,000 in 1956 while lead declined from 322,985,000 lb. valued at \$46,445,000 to 290,277,000 lb. worth \$45,022,000. Consolidated Mining and Smelting produced 386,082,000 lb. of zinc, a record for the second successive year, and 298,524,000 lb. of lead. Concentrates came from the Company's four mines—the Sullivan, the H.B. near Salmo, the Bluebell at Riondel and the Tulsequah Chief in northern British

Columbia—and were treated in Company plants at Trail with custom ores and concentrates from other properties in the Province, from Yukon and from foreign shippers. Consolidated Mining and Smelting operates Canada's only lead smelter and one of its two zinc plants, the other being that of Hudson Bay Mining and Smelting Company Limited near Flin Flon in Manitoba. Other lead and zinc producers in British Columbia in 1956 included Giant Mascot Mines Limited, Canadian Exploration Limited, a subsidiary of Placer Development Limited, Reeves Macdonald Mines Limited, Sheep Creek Mines Limited, and Silbak Premier Mines Limited.

During the first six months of 1957, the Province's output of lead showed a slight increase over that of the same period in 1956 while its zinc production decreased 4 p.c. Consolidated Mining and Smelting closed its Sullivan open-pit mine in June 1957 and announced intentions of ceasing operations at Tulsequah Chief mine. Giant Mascot Mines stopped production in June because of the exhaustion of ore reserves.

The rise in the price of copper during 1955 and early 1956 resulted in a widespread search for new deposits and the development of several properties, ranging from potentially small to large-scale producers. British Columbia's copper output declined 4 p.c. in volume below 1955 but increased 8 p.c. in value. Production came from the Copper Mountain mine of The Granby Consolidated Mining, Smelting and Power Company Limited, the Britannia Beach operations of Britannia Mining and Smelting Company Limited and from the Tulsequah Chief copper-zinc-lead property. New copper production came early in 1957 from the Motherlode mine, a former copper producer near Greenwood, of Woodgreen Copper Mines Limited, and from the Velvet mine at Rossland of Mid-West Copper and Uranium Mines Limited. Companies preparing for production include Phoenix Copper Company Limited, a subsidiary of Granby, at Granby's former producing mine near Phoenix, and Granduc Mines Limited 25 miles northwest of Stewart. Several other companies had properties under active exploration, including American Smelting and Refining Company in Highland Valley, Cowichan Copper Company Limited on Vancouver Island, and Granisle Copper Limited, a Granby subsidiary, on an island in Babine Lake. Following the sharp drop in the price of copper during the first half of 1957, several companies which had been contemplating production decided to await more favourable market conditions.

With the exception of some 6,600 lb., British Columbia accounted for all the Canadian output of tungsten concentrates in 1956. Output comes from the Salmo operations of Canadian Exploration Company Limited, and in 1956 amounted to 2,200,000 lb. valued at \$6,050,000. The Company has a contract with the General Services Administration of the United States for a maximum of 570,000 short ton-units of tungsten trioxide from 1952 to June 30, 1958, at a price ranging from \$55 to \$60 a unit.

The Province's production of iron concentrates, which in 1956 totalled 331,000 long tons, is shipped to Japan. Output came from two properties: the Iron Hill mine of Utah Company of America on Vancouver Island, which was considered worked out and closed in December 1956, and the Texada Island property of Texada Mines Limited. A third company, Empire Development Company Limited, formed in mid-1956, plans to bring the Elk River magnetite deposit on northern Vancouver Island into production in the latter part of 1957. The Company has contracts with iron and steel interests in Japan for the shipment of 1,380,000 long tons of concentrate over a three-year period. The concentrates will be shipped from Port McNeil, 22 miles from the deposits. In July 1957, British Columbia was shipping iron concentrates to Japan at a rate of 2,000 tons monthly.

The Province in 1956 accounted for 32 p.c. of Canada's output of silver, amounting to 9,331,000 oz. t. valued at \$8,371,000. Most of the silver comes from base-metal operations, the chief source being the Sullivan mine.

Gold production in British Columbia in 1956 totalled 211,000 oz. t. valued at \$7,265,000. The three lode gold producers, Bralorne Mines Limited, The Cariboo Gold Quartz Mining Company Limited and Pioneer Gold Mines of B.C. Limited, accounted for 82 p.c. of the output. By-product gold from base-metal mining operations declined sharply, mainly because of the sizable drop in gold production at the Tulsequah mine.

The Prairie Provinces.—The marked expansion of uranium mining in the Beaverlodge area of northern Saskatchewan and the rapid growth in Manitoba's base-metal potential highlighted the outstanding progress made in metal mining in these two provinces during the review period. With the exception of a minor amount of placer gold, Alberta, which lies almost entirely in the Interior Plains region, has no metal production.

The value of Saskatchewan's metal production increased from \$54,709,000 in 1955 to \$70,671,000 in 1956, mainly because of the increase in the value of uranium output, while that of Manitoba showed a slight decline to \$39,209,000 as a result of reduced sales of nickel concentrate. The operations of Hudson Bay Mining and Smelting Company Limited remain the major source of the base-metal wealth of the two provinces. The Company operates the Flin Flon copper-zinc mine which lies astride the Manitoba-Saskatchewan boundary, a concentrator, a copper smelter and a zinc plant at Flin Flon in Manitoba and three small mines near Flin Flon. The larger part of the Flin Flon orebody lies in Saskatchewan. Base-metal production also comes from the nickel-copper property of Sherritt Gordon Mines Limited at Lynn Lake in northern Manitoba.

Uranium moved into second place, next to copper, in value of output in Saskatchewan in 1956. Production was valued at \$24,292,000, just double that of 1955 and only \$3,300,000 less than the total value of copper produced. Output comes from the Beaverlodge area in the northern part of the Province from the operations of the area's first producer, Eldorado Mining and Refining Limited which started production in April 1953; from Gunnar Mines Limited in St. Mary's Channel section; and from several smaller operations, including those of Lorado Uranium Mines Limited which operates a custom mill in the area. Eldorado carried out extensive underground development and expanded its mill capacity from 750 tons to 2,000 tons daily, of which 150 tons has been allocated to the treatment of custom ores. Gunnar, which entered production in 1955, increased its mill capacity from 1,250 tons to 1,650 tons. Mining is by open-pit methods but the Company is preparing for eventual underground operations and it is hoped that before the open pit is finished all mill feed during the severest winter months will come from underground. Lorado commenced treatment of its own and custom ores in its new 500-ton mill in April 1957. The Company plans to proceed almost immediately with the expansion of the plant to 750 tons. Lorado has contracts with Cayzor Athabaska Mines Limited, St. Michael Uranium Mines Limited, Lake Cinch Mines Limited, National Explorations Limited and Black Bay Uranium Limited. Rix-Athabasca Mines Limited continued to ship its ore to Eldorado for treatment.

Nickel production in Manitoba continued to come from the Sherritt Gordon nickel-copper mine at Lynn Lake. Despite the fact that sales of nickel concentrate in 1956 were lower than in 1955, the Company experienced its best production year in 1956 (1955 figures in brackets) with an output of 19,240,000 (16,667,000) lb. of nickel, 9,000,000 (10,156,000) lb. of returnable copper in concentrate, 107,000 (16,000) lb. of cobalt and 71,000 (55,000) tons of ammonium sulphate. Nickel concentrates from the Lynn Lake mine are treated in the Company's chemical metallurgical plant at Fort Saskatchewan, 15 miles northeast of Edmonton in Alberta. Copper concentrates are shipped to Noranda Mines Limited in Quebec for treatment.

Manitoba's nickel-producing potential was greatly increased with the announcement by International Nickel to proceed with the development of its Mystery Lake-Moak Lake property in the northern part of the Province. The project involves the expenditure of \$175,000,000 to develop two new nickel mines, Thompson and Moak Lake, and related surface plants, the construction of a 30-mile branch rail line from Sipiwek on the CNR near Thicket Portage and a 22-mile Company-owned rail line between Thompson and Moak Lake, and certain installations in the new town of Thompson which is expected to have an initial population of 8,000. This project and the continued expansion in the Company's Sudbury area facilities are expected to raise Company production to 385,000,000 lb. of nickel a year, an increase of 100,000,000 lb. over output in 1956. Production at the Thompson and Moak Lake mines is expected to start in 1960 and to reach capacity in 1961.

Hudson Bay Mining and Smelting in 1956 produced 92,680,000 lb. of copper, 126,568,000 lb. of zinc, 105,000 oz. t. of gold, 1,587,000 oz. t. of silver, 157,000 lb. of cadmium and 108,000 lb. of selenium. The Company carried out active exploration in the two provinces and discovered three new orebodies near the town of Snow Lake in Manitoba about 74 miles east of Flin Flon. It is proceeding with the development of one of these, the Chisel Lake deposit, and is actively exploring the other two, one of which is at Ghost Lake and the second at Stall Lake.

Saskatchewan and Manitoba together produced 202,150 oz. t. of gold in 1956. Output from base-metal operations totalled 105,600 oz. t. in 1956. The remainder came from three lode gold mines in Manitoba—the San Antonio mine of San Antonio Gold Mines Limited in the Rice Lake area, which also controls the adjoining property of Forty-Four Mines Limited, and the Nor-Acme mine in the Snow Lake area, which is under lease to Britannia Mining and Smelting Company Limited.

Silver is produced as a by-product mainly of base-metal operations, Flin Flon being the chief source. The remainder comes from the Sherritt Gordon Lynn Lake nickel-copper mine, from Nor-Acme mine and San Antonio mines, all in Manitoba. Production from Saskatchewan and Manitoba in 1956 amounted to 1,602,000 oz. t.

Ontario.—The widespread development of new mines, the construction of new milling plants and an intensive exploration of new and old properties combined to make the period under review one of much solid achievement for Ontario's metal-mining industry. The value of metal production rose 9 p.c. over 1955 to a record \$512,356,000 but the full effect of new production stemming from the marked increase in pre-production development activity will not be felt for a year or two. Great strides were made in the development of a major uranium-mining industry in the Blind River area where almost the spectacular has been achieved within a very few years.

As Canada's leading metal producer, Ontario in 1956 accounted for all of the Canadian output of the platinum metals, 94 p.c. of the nickel, 57 p.c. of the gold, 44 p.c. of the copper and 25 p.c. of the iron ore. Significant gains were recorded in the volume and value of the Province's output of copper, nickel, iron ore and uranium. Gold and the platinum metals, however, showed slight declines below 1955.

The Province's nickel output which came from the operations of International Nickel Company, the world's greatest nickel producer, and from Falconbridge Nickel Mines Limited and two small producers, all in the Sudbury area, increased to 334,096,000 lb. valued at \$209,663,000 compared with the 1955 output of 322,322,000 lb. valued at \$198,489,000. International Nickel mined 15,511,000 tons of ore, the highest tonnage in the Company's history. Ninety-two per cent of the ore came from underground operations at the Frood-Stobie, Creighton, Murray, Garson and Levack mines and the remainder from the Frood open pit. The Company also operates two concentrators, two smelters and a copper refinery near Sudbury, and a nickel and cobalt refinery at Port Colborne in southern Ontario. In 1956 it produced 286,000,000 lb. of nickel. Expansion and modernization of production facilities continued in line with the plans to raise the Company's nickel-producing capacity to 385,000,000 lb. by 1961 through the development of its Mystery Lake-Moak Lake properties in northern Manitoba, with a scheduled production of 75,000,000 lb. annually, the remainder to come from expansion in the Sudbury area.

Falconbridge Nickel has an expansion program under way to raise its nickel-producing capacity to 55,000,000 lb. by 1960. Production in 1956 amounted to 43,384,000 lb. compared with 41,137,000 lb. in 1955. Output came from the Company's Falconbridge, Falconbridge East, McKim, Mount Nickel, Hardy and Longvack mines near Sudbury. The Longvack mine started operations in May 1956. The Company also operates three concentrators and a smelter in the Sudbury area and a refinery at Kristiansand in Norway.

A minor output of nickel came from the operations of Nickel Rim Mines Limited and of Nickel Offsets Limited, also in the Sudbury area. The latter property was closed in January 1957 because of the exhaustion of ore reserves. Meanwhile, a number of new

properties were under exploration and development, mainly in the Kenora area in the northwestern part of the Province. However, underground exploration at one of these, Kenbridge Nickel Mines Limited, a Falconbridge subsidiary, was stopped in May 1957.

Copper production rose 6 p.c. in volume and 18 p.c. in value over the 1955 output to 309,199,000 lb. valued at \$126,951,000 and intensive pre-production development at a number of properties, particularly in the Manitouwadge area in northwestern Ontario, indicated a further marked increase in Ontario's copper output starting in 1957. International Nickel accounted for 88 p.c. of the output, and Falconbridge Nickel for 8 p.c. The remainder came from Nickel Rim and Nickel Offsets, Temagami Mining Company Limited in the Temagami area, and Min-Ore Mines Limited near Matachewan.

In the Manitouwadge area, Willroy Mines Limited brought its copper-zinc property into production in July 1957 and Geco Mines Limited expected to start operations in September 1957 at its copper-zinc-silver property. The new Willroy mill has a rated capacity of 1,000 tons and Geco's of 3,300 tons. Since the discovery of copper-zinc deposits in the area in 1953, two rail lines and a highway have been built into it and a modern mining community designed to accommodate 6,000 people is growing up at the Manitouwadge townsite.

Ontario is one of Canada's richest sources of iron ore. Production in 1956 increased 29 p.c. in volume and 17 p.c. in value over 1955 to 5,008,000 long tons valued at \$40,021,000. Production comprised direct shipping ore from Steep Rock Iron Mines Limited, iron sinter from Algoma Ore Properties Limited in northwestern and northern Ontario respectively, and pellets from Marmoraton Mining Company Limited in southeastern Ontario and from International Nickel's new plant at Copper Cliff in the Sudbury area. Shipments from Steep Rock increased from 2,266,000 long tons in 1955 to a new high of 3,317,000 long tons and came mainly from the Company's Hogarth open-pit mine. Steep Rock continued to carry out extensive development work on its orebodies as part of its development program to raise production to 5,500,000 long tons annually commencing in 1959 from both open-pit and underground operations. In the same area, Caland Ore Company Limited is preparing "C" orebody which it has leased from Steep Rock for production by 1960. Caland is looking to an ultimate annual output of 3,000,000 long tons which will bring shipments from the area to a minimum of 8,500,000 long tons by the mid-1960's and to 10,000,000 long tons a few years later.

Algoma Ore Properties Limited in the Michipicoten area produced 1,411,000 long tons of sinter in 1956, slightly less than in 1955, from its Helen and Victoria underground mines. About two-thirds of the siderite ore from the mines is direct sintering and one-third requires beneficiation in the sink-float plant at Jamestown before sintering. The Company is expanding its facilities at Jamestown and carrying out underground development to raise output capacity to 2,000,000 long tons annually by 1958. Marmoraton Mining Company Limited, a subsidiary of Bethlehem Steel Company of Bethlehem, Pennsylvania, shipped 283,000 tons of high-grade iron ore pellets in 1956 from its operations near Marmora by rail to Picton and by boat to the parent company's steel plant at Lackawanna, New York. Early in 1956, International Nickel began the shipment of high-grade iron oxide pellets from its new \$19,000,000 iron-ore recovery plant near Copper Cliff, producing 71,000 long tons that year. At capacity operation, the plant will treat 1,000 tons of nickeliferous pyrrhotite a day for a production of 1,000,000 tons of pellets a year. Noranda Mines Limited operated its sulphur-iron plant at Port Robinson near Welland at about half capacity and produced 48,000 long tons of iron sinter. Exploratory activity during the period was carried out in various areas containing iron-bearing occurrences of possible commercial importance.

Uranium proved to be the real headline winner in Ontario's metal-mining industry during the review period. Two areas were under development, the Blind River area of northern Ontario and the Bancroft area in the southeastern part of the Province. Output rose from a value of less than \$500,000 in 1955 to almost \$6,000,000 in 1956 and was expected to exceed \$100,000,000 in 1957.

Developments in the Blind River area, where companies already in production or preparing for production have officially published reserves of 250,000,000 tons with average grade of 2.0 lb. of uranium or better, have almost overnight made Ontario a major world source of this metal. By September 1956, Eldorado Mining and Refining Limited, the Crown purchasing agent, had signed contracts or given letters of intent to eight companies in the area covering the sale of over \$1,100,000,000 worth of uranium precipitates by Mar. 31, 1963. By 1958, eleven concentration plants are expected to be in operation handling an estimated daily throughput of 34,300 tons. At the beginning of the review period the area had one producer, Pronto Uranium Mines Limited, with a milling capacity of 1,500 tons daily. By July 1957, it had three additional properties in production, the Quirke Lake and Nordic Lake mines of Algom Uranium Mines Limited each at 3,000 tons daily and the property of Consolidated Denison Mines Limited. Four others were scheduled to start operations before the end of 1957. These comprised two (the Lake Nordic at 4,000 tons daily and the Panel at 3,000 tons daily) of the three properties of Northspan Uranium Mines Limited; Can-Met Explorations Limited at 2,500 tons daily, and Stanleigh Uranium Mining Corporation Limited at 3,000 tons daily. Stanrock Uranium Mines Limited and Milliken Lake Uranium Mines Limited, each at 3,000 tons daily, and Northspan at its Spanish American property at 2,000 tons daily are preparing for production during the first half of 1958. The largest operation is that of Consolidated Denison with its 6,000-ton plant, the largest single uranium plant in the world. Northspan holds the largest contract (\$275,000,000) with Eldorado Mining and Refining. Capital outlays to bring the eleven plants in the area into production are estimated at \$275,000,000. A model townsite, Elliot Lake, is under construction and is expected to have a population of 30,000 by 1960.

Uranium production is also coming from the Bancroft area in the southeastern part of the Province where three companies, Bicroft Uranium Mines Limited, Faraday Uranium Mines Limited, and Greyhawk Uranium Mines Limited started to produce during the review period and a fourth, Canadian Dyno Mines Limited, was scheduled to start in April 1958. The Greyhawk mine is shipping its ore to the nearby Faraday mill for treatment. Bicroft and Faraday are each operating 1,000-ton plants while Canadian Dyno is erecting a 1,100-ton plant.

Ontario's output of cobalt comes from the cobalt and silver ores of the Cobalt-Gowganda area in northern Ontario and as a by-product from the nickel-copper ores of the Sudbury district. Production in 1956 at 3,574,000 lb. valued at \$9,055,000 was slightly higher than in 1955. Cobalt ore shipments from the Cobalt-Gowganda area were made chiefly to Deloro Smelting and Refining Company Limited at Deloro, Ont. The ores and concentrates were sold under the Canadian Government's premium price plan on behalf of the United States Government. The plan had been in effect since the start of the Korean emergency in 1951 and was terminated at the end of 1956. International Nickel continued to produce high-purity electrolytic cobalt at its Port Colborne refinery. Deliveries of cobalt in all forms by the Company in 1956 amounted to 1,543,000 lb. while Falconbridge Nickel delivered 543,000 lb.

About 70 p.c. of the Province's production of silver comes from the Cobalt area and the remainder as a by-product from nickel and lode gold mines. Output in 1956 amounted to 6,479,000 oz. t. valued at \$5,812,000.

Gold production in Ontario came from thirty gold mines in the Patricia, Thunder Bay, Porcupine, Kirkland Lake and Larder Lake areas and as a by-product from the base-metal mines in the Sudbury area. The 1956 production of 2,498,000 oz. t. was slightly lower than in 1955 but output during the first half of 1957 showed a slight increase over the same period in 1956. One mine, that of Starrat Nickel Mines Limited in the Red Lake area, ceased production in 1956 because of the exhaustion of ore reserves. Kerr-Addison Gold Mines Limited in the Larder Lake area, Canada's leading gold producer, in 1956 recorded an all-time high production of 473,000 oz. t., an increase of 46,000 oz. t. over the 1955 output.

A minor production of lead and zinc concentrates came from the zinc-lead-silver property of Jardun Mines Limited, 18 miles northeast of Sault Ste. Marie. New zinc production from the Manitouwadge area started in July 1957 from Willroy Mines and was scheduled to start later in the year from Geco Mines.

Quebec.—Mineral development activity in Quebec reached new peaks during the review period resulting in a marked increase in the Province's metal-producing capacity and confirming its great potentiality as a producer of iron ore and of base metals. Fresh proof of the tremendous wealth of Quebec's varied and extensive mineral resources was found in the discovery in northern Ungava of widespread nickel occurrences in a mineralized belt of rocks extending from Cape Smith on Hudson Bay to Wakeham Bay on Hudson Strait and, in western Quebec, of copper-zinc deposits in the Bell River-Mattagami Lake area. A record 55,523 claims were staked in the Province in 1956.

Quebec ranked second among the provinces in value of mineral production in 1956. Its total mineral output rose almost 20 p.c. above 1955 to \$426,608,000 and the value of its metal production 28 p.c. to \$236,213,000 which was only \$43,000,000 short of the total value of the Province's mineral output in 1954. Quebec is the second largest producer of copper, gold, iron ore, and zinc and the only producer of molybdenite and of titanium ore, the latter being from the large deposits of ilmenite at Allard Lake. Silver, selenium, magnesium, lead and bismuth make up the remainder of the Province's metal production.

Quebec is rapidly becoming a major world source of iron ore. Production in 1956 jumped 90 p.c. in volume over 1955 to 6,960,000 long tons and more than doubled in value to \$56,203,000. Developments under way at various properties indicate an output several times this size and value within the next decade.

With the exception of a minor tonnage from Quebec Iron and Titanium Corporation, production in 1956 came from the operations of Iron Ore Company of Canada in New Quebec-Labrador. This Company mined over 12,000,000 long tons of iron ore, more than 60 p.c. of which came from the Gagnon and French mines in Quebec. The ore was shipped by rail 360 miles to Sept-Îles on the north shore of the St. Lawrence and then by boat mainly to United States. A total of 2,757,712 tons was shipped through the St. Lawrence canal system to Great Lakes ports, with transshipment at Contrecoeur, near Montreal. Of the 1956 output, 9,447,000 tons went to the United States, 1,470,000 tons to the United Kingdom, and 391,000 tons to western Europe; 704,000 tons were utilized in Canada. A new mine, the Ferriman, scheduled for production in 1957, and total shipments from Sept-Îles are estimated at more than 13,000,000 tons for that year.

In addition to Iron Ore Company's large high-grade deposits in New Quebec-Labrador, Quebec has huge tonnages of low-grade iron-bearing material, several deposits of which are being developed toward production. These include the concentrating-grade magnetite deposit of the Hilton Mines, formerly known as the Bristol Mines, about 40 miles northwest of Ottawa, and the holdings of The Cartier Mining Company Limited, a subsidiary of United States Steel Corporation, in the Mount Reed-Mount Wright area about 300 miles northeast of Quebec City. Mining at the Hilton Mines, which is scheduled to start late in 1957, will be by open-pit methods at an annual rate of 600,000 tons of iron ore pellets containing about 66 p.c. iron.

The Cartier Mining Company plans to spend over \$200,000,000 to bring its large, low-grade iron ore deposits into production. Initial output is expected in 1961 at an annual rate of 3,000,000 tons with expansion to 10,000,000 tons possibly by 1965. Eventual output from the Company's operations in the general area could reach several times this figure. Present plans call for the construction of a 150-mile private railway into the area from Shelter Bay on the north shore of the St. Lawrence River.

Exploratory work, including geophysical examination, was done on several properties in the favourable iron-bearing formations which extend in an almost continuous arc from the most northerly tip of the west coast of Ungava Bay to the Mistassini area. At the southern end of the arc, a number of companies, including Jones and Laughlin Steel Corporation, Pickands Mather and Company, Iron Ore Company of Canada, The Steel Company of Canada and Canadian Javelin Limited have extensive holdings.

At the far northern end, west of Ungava Bay, Atlantic Iron Ores Limited and International Iron Ores Limited, both controlled by Cyrus S. Eaton interests of Cleveland, Ohio, and Oceanic Iron Ore of Canada Limited and Consolidated Fenimore Iron Mines Limited have outlined large reserves of concentrating-grade iron ore. The first two companies are negotiating with German steel interests for the sale of concentrates from their properties.

Most of Quebec's base-metal production comes from the western part of the Province, the chief source of output being the Horne mine of Noranda Mines Limited. The Province's output of copper jumped 21 p.c. in volume over 1955 to 244,918,000 lb. in 1956 and 36 p.c. in value to \$101,396,000 because of the high price of copper prevailing in 1956 and the addition of production from new properties. Zinc and lead showed declines in output below 1955, zinc decreasing from 202,862,000 lb. to 175,809,000 lb. and lead from 11,216,000 lb. to 5,629,000 lb.

Noranda Mines treats ore from its Horne mine and custom ores and concentrates from other copper, gold and silver mines. It recovers the copper and precious metals from the anodes at the electrolytic copper refinery of its subsidiary, Canadian Copper Refiners Limited, at Montreal East. Of the 101,406 tons of copper, 413,390 oz. t. of gold, and 2,280,400 oz. t. of silver produced by the Company in 1956, 26,308 tons of copper, 199,630 oz. t. of gold and 779,800 oz. t. of silver were credited to the Horne mine. Expansion initiated by Noranda in 1956 will raise its copper-smelting capacity from 240,000,000 lb. to 350,000,000 lb. a year and will open up a new open-pit operation nearby. The capacity of the Montreal East plant was raised from 17,000 tons to 21,000 tons of refined copper a month.

New copper production amounting to 55,234,000 lb. in 1956 came from Noranda's subsidiary, Gaspé Copper Mines Limited, on Gaspé peninsula, which had completed a 6,500-ton concentrator and smelter in 1955. Operations in 1956 were hampered by a three-month suspension in the supply of hydro-electric power and by a shortage of mine labour. In March 1957, production was again interrupted by a strike which ended early in October 1957. A mine and mill rate of about 4,000 tons a day had been reached prior to the strike. The anodes are shipped to the refinery at Montreal East.

New production also came from the Chibougamau area which is shaping into one of Canada's major copper-producing areas. Output from the new 450-ton mill of Chibougamau Explorers Limited, Campbell Chibougamau Mines Limited, the area's largest producer, and Opemiska Copper Mines (Quebec) Limited was at a rate of well over 50,000,000 lb. a year at the end of the review period. Several other properties in the area were under development, some of which were near the production stage. One of these, Merrill Island Mining Corporation Limited had a 650-ton plant under construction on its property in Doré Lake.

Copper production in western Quebec came from the copper-zinc ores of Waite Amulet Mines Limited, Quemont Mining Corporation Limited, East Sullivan Mines Limited, Normetal Mining Corporation Limited, Golden Manitou Mines Limited; from the new copper-gold mine of Rainville Mines Limited, 16 miles east of Val d'Or; from Beattie-Duquesne Mines Limited at Duparquet, which modified its gold mill to produce copper concentrates from its Hunter mine, and from Lyndhurst Mining Company Limited which started shipping ore to the Beattie-Duquesne mill. The remainder came from the operations of Weedon Pyrite and Copper Corporation Limited and Quebec Copper Corporation Limited in southern Quebec. Ascot Metals Corporation Limited closed its zinc-lead-copper Suffield mine near Sherbrooke owing to exhaustion of commercial ore.

Barvue Mines Limited, a zinc-silver producer in Barraute township of western Quebec, accounted for 48,602,000 lb. of zinc, the largest zinc output in Quebec in 1956. This was a decline of 22,822,000 lb. from the Company's production in 1955. The conversion from open-pit to underground mining was completed, with underground production scheduled at 3,000 tons daily compared to 4,000 tons a day from open-pit operations. Operations at the property ceased early in October 1957.

Zinc production also came from the copper-zinc properties of Quemont, Normetal, Golden Manitou, Waite Amulet, East Sullivan and Weedon Pyrite mentioned above and from West Macdonald Mines Limited in Rouyn-Noranda County and New Calumet Mines Limited, a zinc-lead-gold-silver producer on Calumet Island in the Ottawa River. Zinc concentrates produced in the Province are exported to the United States and Europe.

Lead concentrates were produced at three mines—New Calumet, Golden Manitou and Barvue—New Calumet being the largest producer.

Widespread exploratory activity in Quebec resulted in the discovery of a number of new sources of base-metal wealth. Attracting major attention were the nickel discoveries in northern Ungava where exploratory work disclosed several occurrences of nickel in a mineralized belt of rocks extending from Cape Smith on Hudson Bay to Wakeham Bay on Hudson Strait. Several companies were active in the area during 1957 and development work was done on some of the properties. In mid-1957 the discovery of copper-zinc deposits in the Bell River-Mattagami Lake area touched off a staking rush into that area.

Quebec produced 1,032,000 oz. t. of gold in 1956. Sixty-six per cent of the output came from lode gold mines and the remainder from base-metal operations. Output from the latter was greater than in 1955 because of increased production from the copper-gold mines in the Chibougamau area. Three lode gold mines—Beattie-Duquesne, O'Brien Gold Mines Limited and Sullivan Consolidated Mines Limited—ceased production in 1956 leaving ten in operation.

Molybdenite production comes from Molybdenite Corporation of Canada Limited about 25 miles northwest of Val d'Or, the sole Canadian producer. Output in 1956 totalled 1,452,000 lb. In December 1956, the Company began the production of molybdenic oxide, which will lead to a decrease in imports of the oxide by Canadian steel plants.

Quebec Iron and Titanium Corporation continued to operate at Sorel its experimental smelting plant for the treatment of ilmenite ore from the deposits at Allard Lake, which are among the largest known in the world. Production is in the form of titanium dioxide concentrate and pig iron. Production of titanium dioxide slag at Sorel in 1956 amounted to 209,513 tons containing 150,640 tons of titanium dioxide. Most of the slag produced was exported to United States for the titanium pigment and welding-rod industries. Early in 1957 the Company announced its intention to increase by 60 p.c. production of titanium dioxide slag at its Sorel plant because of the increased demand for slag for processing into titanium dioxide pigment used extensively in paint and paper products and for processing into titanium metal.

The Maritimes.—Major attention in metal mining continued to be directed to the Bathurst-Newcastle lead-zinc area of northeastern New Brunswick which promises to become one of Canada's major base-metal camps. In western New Brunswick, plans were under way to proceed with the development of the deposits of manganese in the Woodstock area. Meanwhile, the two former sources of base-metal production—Keymet Mines Limited, 18 miles northwest of Bathurst in New Brunswick, and Mindamar Metals Corporation Limited on Cape Breton Island in Nova Scotia—ceased production because of the exhaustion of ore. Prince Edward Island has no mineral production.

Exploratory and development activity in the Bathurst-Newcastle area continued at a high level during most of the review period, declining somewhat only in mid-1957 because of low metal prices. Heath Steele Mines Limited, the area's first major producer, commenced operations early in 1957. Several properties, including those of Brunswick Mining and Smelting Corporation Limited, were brought nearer to the production stage, and intensive exploration brought to light a number of major new orebodies.

Heath Steele Mines, a subsidiary of American Metal Company, brought its lead-zinc-copper property some 34 miles northwest of Newcastle into production in February 1957 and by late June was treating 1,200 tons daily in its 1,500-ton mill. A 22-mile railway from Bartibog on the main line of the CNR was scheduled for completion toward the end of 1957. Brunswick Mining and Smelting reported encouraging progress in the intensive research being carried out on its metallurgical problem. It continued development work

on its two orebodies and started on the design of a plant with an initial production of 2,000 tons daily. Anacon Lead Mines Limited and Sturgeon River Mines Limited continued underground development of their properties in the Bathurst area. In the same area, Nigadoos Mines Limited began shaft-sinking on its lead-zinc property. Anaconda Company (Canada) Limited, 30 miles west of Bathurst, and Middle River Mining Company Limited, 12 miles west of Heath Steele, each outlined major sulphide orebodies. Total ore reserves of the various mines in the area calculated to 1,000-foot depth were estimated at over 100,000,000 tons.

In the Woodstock area, Strategic Manganese Corporation Limited, a subsidiary of Stratmat Limited, is working out plans to build a \$15,000,000 electric smelter with an initial capacity of 70,000 tons of ferromanganese and 60,000 tons of iron a year. Metallurgical test work on concentrates from the Company's large low-grade manganese deposit using the Udy process, was carried out in the pilot plant of Strategic-Udy Metallurgical and Chemical Processes Limited at Niagara Falls, Ont., and later at a semi-commercial plant.

The value of metal production in New Brunswick dropped from \$316,000 in 1955 to \$159,000 in 1956 because of the closing of the Keymet lead-zinc-silver mine which had been in production since early in 1954, and the cessation of shipments of tungsten concentrates from the property of Burnt Hill Tungsten and Metallurgical Limited near Napadogan in western New Brunswick.

In Nova Scotia, the value of metal output fell from \$3,884,000 in 1955 to \$1,005,000 in 1956 with the closure of the Stirling lead-zinc-copper mine by Mindamar Metals. The property, which had been in production since 1952, had an annual output valued at about \$3,000,000.

Newfoundland.—Newfoundland in 1956 was Canada's leading source of iron ore. Output which came from the Labrador operations of Iron Ore Company of Canada and of Dominion Wabana Ore Limited on Bell Island increased 21 p.c. in volume and 26 p.c. in value over 1955 to 7,814,000 long tons valued at \$57,699,000. The remainder of the Province's metal production comprises zinc, lead, copper, silver and gold, in order of value, from the operations of Buchans Mining Company Limited near Red Indian Lake in central Newfoundland. The value of metal production in Newfoundland in 1956 jumped 29 p.c. over 1955 to \$79,858,000. The value of all mineral output in 1956 was \$87,752,000.

Iron Ore Company of Canada shipped 12,023,000 long tons of direct-shipping ore from its New Quebec-Labrador deposits in 1956. Of this, 4,058,000 long tons or 52 p.c. of the Province's output, came from the Company's Ruth and Gill mines in Labrador. The Company began operations in 1956 on May 1 and continued through a 203-day season until Nov. 19. The Gill mine spur and yards were completed during 1956. (For other details of the Company's operations and production during the review period, *see* p. 503.)

Dominion Wabana, a subsidiary of Dominion Steel and Coal Corporation, shipped 2,654,000 long tons of beneficiated hematite in 1956. Of this, 490,000 tons went to the parent Company's plant at Sydney, N.S., 1,029,000 tons went to the United Kingdom, 1,039,000 tons to West Germany and the remainder to the Netherlands, France and the United States. The Company has contracted for the sale of ore up to and including 1961 and, to meet these commitments, must produce at least 3,000,000 tons of ore annually. Mechanization of mine and surface operations, a \$22,000,000 program started in 1950, was completed in 1956.

Additional iron-ore production is indicated from the holdings of Canadian Javelin Limited in the Wabush Lake area of Labrador immediately south and adjacent to the Labrador concession of Iron Ore Company of Canada. According to Company estimates, the Canadian Javelin 4,700-sq. mile concession contains huge reserves of concentrating iron ore. Early in 1957, the Company announced agreements with Pickands Mather and Company and other United States steel companies to develop large portions of its holdings. At the close of the review period in June 1957, it was understood that the Company was also negotiating with European steel interests to develop other areas not included in the previous agreements.

Buchans Mining Company milled 366,000 tons of zinc-lead-copper ore in 1956. The concentrates produced contained 74,280,000 lb. of zinc, 46,594,000 lb. of lead and 8,000,000 lb. of copper. The Company also produced 919,000 oz. t. of silver and 8,400 oz. t. of gold. The new MacLean shaft, planned for a depth of 4,000 feet, $1\frac{1}{2}$ miles northwest of the Buchans townsite, was started. In the Notre Dame Bay area, Maritimes Mining Corporation was on schedule in the pre-production development of the old Tilt Cove copper property. A new 2,000-ton concentrator was expected to be ready for operation in September 1957. Ore reserves were reported in March 1956 at 3,941,700 tons averaging 2.05 p.c. copper.

Subsection 2.—Industrial Minerals*

There were important developments in the industrial mineral field during 1956 and 1957. Production records were established for many of the minerals and a number of new deposits were opened up. Especially noteworthy were the developments in the Canadian sulphur industry and the progress made toward production of potash from the rich and extensive deposits in Saskatchewan.

Sulphur.—Pyrite and pyrrhotite together with smelter gases have been the main sources of sulphuric acid and sulphur dioxide in Canada and are accounting for increasing quantities of sulphur products. However, with the development of the natural gas resources of Western Canada a new source of elemental sulphur is coming into being which will in the near future become the main source of sulphur in the country.

Some of the largest gas fields of Western Canada contain gas of the 'sour' variety, that is, gas with a relatively high content of sulphur in the form of hydrogen sulphide. The hydrogen sulphide must be removed from the gas before it is fed to the gas transmission lines. In this process elemental sulphur is obtained. The content of hydrogen sulphide is as high as 37 p.c. in some of the sour gas in Alberta. From every million cubic feet of hydrogen sulphide about 40 short tons of extremely pure sulphur can be obtained, and at a cost comparable with that of obtaining sulphur by the Frasch process.

Prior to 1956 there were two small sulphur recovery plants operating on sour gas in Alberta, producing 110 long tons of sulphur daily. In 1956, Imperial Oil Limited built a plant at the Redwater oilfield north of Edmonton capable of producing 20 long tons of sulphur per day, and late in the same year The British American Oil Company Limited completed a plant at Pincher Creek, Alta., having an initial capacity of 225 long tons of sulphur daily and an eventual capacity of 800 long tons daily. Also in 1956, Jefferson Lake Sulphur Company of New Orleans, La., the third largest sulphur producer in the United States, commenced construction of a plant at Taylor, B.C., to produce 425 long tons of sulphur per day from gas supplied by Pacific Petroleum Limited. This plant, scheduled for operation in November 1957, may be increased in output to 800 long tons per day in 1959. Six other sulphur recovery plants having a total minimum daily productive capacity of 2,400 long tons are proposed for Alberta within the next few years and, provided the present plans of gas transmission companies are carried out, it is possible that 1,000,000 tons of sulphur will be produced annually from natural gas in Western Canada by 1961.

In Montreal a plant to produce 100 long tons of sulphur daily from oil refinery gas, constructed by Laurentide Chemicals and Sulphur Limited is expected to be in operation late in 1957.

Reference has been made in previous Year Books to the Noranda process for converting pyrite and pyrrhotite into sulphuric acid, sulphur, and iron sinter. This process is working successfully at Port Robinson and at Cutler in Ontario. The sulphuric acid plant at Cutler has a daily capacity of 1,000 tons of sulphuric acid and serves the uranium industry in the Blind River district.

Sulphuric acid and liquid sulphur dioxide have also been produced from smelter gases for a number of years. Currently, The International Nickel Company of Canada Limited and the Texas Gulf Sulphur Company are jointly investigating the economics

* Prepared by M. F. Goudge, Chief, Industrial Minerals Division, Department of Mines and Technical Surveys.

of producing elemental sulphur from the sulphur-rich gases of the Nickel Company's new iron-ore recovery plant at Copper Cliff, Ont. The significance of these and of other prospective developments is that within a few years Canada may become second among world producers of sulphur and will have a substantial tonnage available for export. At present Canadian industry imports about one-half of its requirements. Production of sulphur or its equivalent from all sources in Canada in 1956 was 798,520 short tons.

Potash.—It is expected that by 1959 Canada will have become a major producer of potash. The potash deposits of Saskatchewan, discovered in 1943 by Imperial Oil Limited during exploratory drilling for petroleum, have in recent years been intensively prospected by means of core-drills and are now believed to be the largest and richest in the world. In mid-1957, seventeen companies financed by capital from Canada, the United States, Germany and France, held land in the so-called potash belt, and a number are actively engaged in the exploration of their holdings. Two companies—Potash Company of America Limited and International Minerals and Chemical Corporation (Canada) Limited—are sinking shafts to the deeply buried deposits and are building large surface plants in which to prepare the potash for industrial use. The expenditure involved will be in the neighbourhood of \$30,000,000 for each company. A Canadian company—Western Potash Limited (now Continental Potash Corporation Limited)—sank a shaft near Unity, Sask., to a depth of 1,170 feet, but at present this company is inactive.

The potash deposits occur at or near the top of a vast bed of rock salt that underlies most of the Prairies. The potash is at depths of from 2,550 to 7,000 feet, but is nearest the surface (2,550 to 3,500 feet) in a belt 35 to 50 miles wide and nearly 400 miles long that extends diagonally across the Province from the Manitoba border north of Moosomin, to the Alberta border near Manito Lake. The deposits are not known to extend into Alberta but have been found in Manitoba within 15 miles of the Saskatchewan border. The predominant potash mineral is sylvite but in the vicinity of the Quill Lakes some beds of carnallite over 30 feet thick have been found. Beds of intermixed sylvite and rock salt (referred to as sylvinite) over 10 feet thick and containing the equivalent of over 25 p.c. of K_2O are common, and some beds containing the equivalent of 40 p.c. of K_2O are reported.

As a result of exploration most of the activity is now confined to two main areas. The first of these extends from west of Saskatoon to the Quill Lakes. In this area Potash Company of America Limited has its holdings and is sinking a shaft at Patience Lake 14 miles east of Saskatoon.

The second area is south of Yorkton in the eastern part of the Province. At Esterhazy in this district, International Minerals and Chemical Corporation (Canada) Limited has begun sinking a shaft to the potash deposits which here are 3,000 feet beneath the surface.

Estimates made by competent authorities of the tonnage of high-grade potash occurring in Saskatchewan have run as high as 5,000,000,000 tons. In any case it is now known that the deposits are among the largest in the world and in quality they probably surpass all others.

Asbestos.—The asbestos industry is still growing. A major expansion program which began after the end of World War II resulted in productive capacity being more than doubled. Shipments in 1956 totalled 1,014,249 tons valued at \$99,859,969—a new record in value and a near record in quantity. The Canadian asbestos industry supplies over 60 p.c. of the world's requirements of asbestos fibre. The 5,000-ton mill of Lake Asbestos of Quebec Limited under construction at Black Lake in the Eastern Townships of Quebec when placed in operation in late 1958 will add over 100,000 tons of fibre to the Canadian annual production. National Asbestos Mines, a subsidiary of National Gypsum (Canada) Limited, is constructing a mill of 3,000 tons daily capacity just east of Thetford Mines. The largest addition to milling capacity is being made by Canadian Johns-Manville Company at Asbestos, Que., where the annual capacity of its new mill, already the largest in the world, is being increased by one-third to 825,000 tons of fibre. Several other asbestos producers are building new mills with greater capacities than the mills they will replace. Promising deposits are under examination in Newfoundland, the Yukon Territory, and northern British Columbia.

Barite.—Demand for barite remains high and production topped all previous records in 1956 when 320,825 tons valued at \$3,031,034 were shipped; 96 p.c. came from the mine of Magnet Cove Barium Corporation at Walton, N.S. After being crushed and washed, the barite from this deposit is shipped by boat to plants on the shores of the Gulf of Mexico and in South America where it is ground for use in making heavy drilling muds needed to combat high pressures encountered in drilling deep oil wells.

Cement.—The annual productive capacity of the Canadian Portland cement industry increased by 5,000,000 bbl. to a total of 42,000,000 bbl. in 1957 through the addition of kilns to existing plants and the construction of two new cement plants, one built by Lake Ontario Cement Company Limited at Picton, Ont., with a rated yearly capacity of 1,800,000 bbl. and one by Lafarge Cement of North America Limited at Vancouver with a rated yearly capacity of 1,300,000 bbl. Production (shipments) of cement in 1956 amounted to 28,695,331 bbl. valued at \$75,233,321, a record both in quantity and in value.

The Canadian cement industry has increased its production capacity threefold since the end of World War II, but even so has been unable, until 1957, to supply the domestic demand. In recent years it has been necessary to import between 2,300,000 and 3,400,000 bbl. a year. Demand for cement has been accentuated by the heavy requirements of such great engineering works as the St. Lawrence Seaway and Power Project which is using nearly 5,000,000 bbl., most of it from Canadian plants. From 1956 on it is anticipated that only very small imports of cement will be required and efforts will be made to develop an export market for any surplus production.

Clay Products.—Clay products include brick, tile, ceramic pipe, pottery, porcelain and certain types of refractories. Nearly 200 plants are engaged in the manufacture of these products in Canada. Value of production in 1956 reached a record of \$37,784,980. In the larger plants of this industry from Newfoundland to British Columbia a changeover is in progress from periodic and old-type continuous kilns to modern tunnel kilns fired by oil or gas. These tunnel kilns, though high in initial cost, permit better control and greater efficiency. The widespread use of the tunnel kilns is largely related to the imminent availability of natural gas for fuel.

Fluorspar.—Production of fluorspar reached a new high both in quantity and in value in 1956 when 140,071 tons valued at \$3,407,582 were shipped. The most important uses of this mineral are as follows: (1) in the production of sodium aluminum fluoride for use in the aluminum industry; (2) flux in the manufacture of steel; (3) for ceramic purposes. The two principal producers of fluorspar have their mines at St. Lawrence in the Burin Peninsula of Newfoundland. A large part of the Canadian production in recent years was exported to the United States where much of it was stockpiled as a strategic mineral. The removal of fluorspar from the list of minerals to be stockpiled will result in a much lower production in 1957.

Gypsum.—Production of gypsum attained a new high in 1956 when 4,895,811 tons valued at \$7,260,236 were shipped from Canadian quarries, most of it going out of the country in the crude state. It is used principally for wallboard, wall plaster, sheathing board, lath, and tile. The largest deposits are in Nova Scotia from where 84 p.c. of the Canadian production is obtained. In 1956 a new quarry was opened near Windsor, N.S., by Canadian Gypsum Company Limited which will bring the Company's productive capacity up to 11,000 tons per day on a single shift basis. Gypsum has been quarried in this vicinity for well over 100 years and the quarries are among the largest in the world. The gypsum is shipped by boat to the Company's plants along the Atlantic Coast of the United States where it is made into various products.

Lime.—The Canadian lime industry is anticipating the greatest production in its long history in 1957, surpassing the previous record production of 1,331,118 tons valued at \$15,810,904 achieved in 1955. Through the ages lime has been regarded as a construction material and its chief functions were as a plastic binder in masonry and as plaster for walls. These uses now account for only 10 to 15 p.c. of the output—the remainder is

marketed for chemical uses. There is a particular demand for it in the processing of uranium ores. The uranium mills of the Blind River district of Ontario alone will require an estimated 700 tons of lime per day when they are all in operation. To supply this lime the plant of Gypsum Lime and Alabastine Canada Limited at Beachville, Ont., has been enlarged and a new lime plant has been built by North American Cyanamid Limited also at Beachville. Lime for uranium processing is also obtained as a co-product at the magnesite plant of Aluminum Company of Canada at Wakefield, Que.

Spodumene.—A new industrial mineral product was added to the list of those produced in Canada late in 1955 when Quebec Lithium Corporation brought its spodumene deposit near Val d'Or into steady production. Production of lithia in 1956 amounted to 4,789,360 lb. valued at \$2,643,950. The entire production of about 200 tons of concentrates per day is sold under a five-year contract to Lithium Corporation of America at Bessemer, North Carolina. The flotation process that produces the spodumene concentrates also produces feldspar as a co-product. This feldspar, which is a mixture of the soda and potash varieties, can be produced at the rate of 175 tons per day.

Salt.—Production and exports of salt have risen very rapidly since 1954. In 1956 a record 1,590,804 tons valued at \$12,144,476 was produced and a record 333,935 tons valued at \$2,286,830 was exported. Prior to 1955 exports of salt from Canada were very small. In that year Canadian Rock Salt Company started production of rock salt from a new mine at Ojibway, Ont., at the rate of 500 tons per hour, which accounts for the greatly increased annual output. Another rock salt mine is being developed at Pugwash, N.S., by the Malagash Salt Company. Difficulties in sinking the shaft to the salt, which, is at a depth of 400 feet, have delayed the opening of this mine which was originally planned for 1957. Dominion Tar and Chemical Company Limited of Montreal through its subsidiary, Sifto Salt Limited, has also started shaft sinking near Goderich, Ont., with the intention of mining a 20-foot bed of pure rock salt found in that locality.

The mining of rock salt on a large scale brings about a major change in the salt industry of this country. Heretofore most of the salt has been obtained by introducing water to deeply buried salt beds and pumping up the resultant brine. The brine was either used as such by nearby industries or the salt was recovered from it by evaporation. Rock salt is a much cheaper product and can be employed for most industrial purposes. Its availability will aid the salt-using chemical industries of Canada.

Sand and Gravel.—The quantity of sand and gravel used in Canada in 1956 was 148,801,268 tons, which far exceeds the tonnage of any other mineral substance marketed. Its value at \$81,457,352 was exceeded by that of only eight mineral products. Favoured by the steadily increasing strictness of specifications for sand for use in concrete, and by the increasing difficulty of obtaining suitable material in quantity from natural deposits, a new industry has developed recently. This is the industry engaged in the manufacture of sand from suitable rocks adjacent to major construction projects, and adjacent to cities where large quantities of sand are required. The requirement of nearly 3,000,000 tons of sand for the concrete of the St. Lawrence Seaway and Power Project was largely filled by manufacturing it from limestone and sandstone obtained nearby. The same deposits also supplied most of the 4,000,000 tons of crushed stone used.

Subsection 3.—Petroleum and Natural Gas*

The rapid development of Canada's petroleum and natural gas resources, initiated by the Leduc oil field discovery of 1947, continues unabated. At the end of 1956 proved reserves of crude oil and natural gas liquids totalled 3,129,304,000 bbl. compared with 72,000,000 bbl. at the end of 1946 and during the intervening ten-year period production amounted to 657,605,839 bbl. In 1956 the new oil found was more than three times the actual production which, at 170,569,200 bbl., was more than twenty-two times the 1946 output. Natural gas reserves in 1956 were in excess of 23 trillion cu. feet compared with

* Prepared under the direction of Dr. Marc Boyer, Deputy Minister of the Department of Mines and Technical Surveys, by R. B. Toombs, Head, Mineral Economics Section, Mineral Resources Division. A survey of oil and gas pipelines will be found in the Transportation Chapter.

4.7 trillion in 1950. Crude oil has, since 1953, maintained its lead in annual production value for all minerals produced in Canada and natural gas is entering a period of rapid growth.

Canadian crude oil production increased by 32.9 p.c. in 1956 over 1955 and by mid-1957 a somewhat smaller advance was indicated for that year. Alberta accounted for 83.6 p.c. of Canada's crude oil production in 1956. Saskatchewan's share, which is increasing steadily, was 12.3 p.c. Manitoba contributed 3.5 p.c. and Ontario, the Northwest Territories, New Brunswick and British Columbia the remainder. British Columbia's first commercial output of crude petroleum took place in 1956.

The size and rate of recent growth of crude oil production in Western Canada is indicated by the following figures:—

| <i>Item and Date</i> | <i>Alberta</i> | <i>Saskatchewan</i> | <i>Manitoba</i> |
|------------------------------|----------------|---------------------|-----------------|
| NUMBER OF OIL WELLS— | | | |
| December 1954..... | 5,068 | 1,094 | 284 |
| December 1955..... | 6,138 | 1,655 | 554 |
| December 1956..... | 7,390 | 2,414 | 736 |
| NUMBER OF OIL FIELDS— | | | |
| December 1954..... | 65 | 30 | 6 |
| December 1955..... | 74 | 37 | 11 |
| December 1956..... | 86 | 46 | 12 |

Expenditures in Western Canada on exploration and oil-field development programs exceeded \$600,000,000 in 1956. At the end of the year land holdings by oil companies totalled 314,000 sq. miles and exploration carried out included the drilling of 899 exploratory wells. Geophysical work was widespread and, in terms of geophysical party employment, amounted to 1,484 crew-months of which 70 p.c. was in Alberta, 20 p.c. in Saskatchewan and most of the remainder in British Columbia. Total drilling of all categories amounted to 15,749,949 feet in 3,359 oil wells, gas wells and dry holes. Of the total number of wells drilled, 71 p.c. were classified as oil wells, 5.5 p.c. as gas wells and 23.5 p.c. as dry holes. An average of 222 drilling rigs were in use in Western Canada throughout the year.

Exploration programs are being actively continued in Ontario and Quebec, particularly in the search for natural gas. Drilling in southwestern Ontario is being extended out into Lake Erie, and in Quebec geophysical work and drilling are under way in the region between Montreal and Quebec City. In all, 431 holes were drilled in Ontario in 1956, resulting in 157 gas wells and 57 oil wells. Thirteen exploratory wells were drilled in Quebec.

Details of oil and gas field activities by province during 1956 and the first half of 1957 follow.

British Columbia.—In 1956 and 1957 British Columbia's natural gas resources were under rapid development in preparation for initial operation of the Westcoast Transmission Company gas pipeline from the Peace River area to the Pacific Coast. Gas reserves of four trillion cubic feet have been established and northeastern British Columbia is now considered to be one of the important gas sources of North America. Zones of all ages down to and including those of Devonian age have been indicated as potential gas sources. The Fort St. John gas field, where 23 gas wells were completed in 1956, has the largest reserves in the Province and all other fields are within 50 miles of this field. Exploratory drilling is spreading northward from the Fort St. John area; in 1956 one of the 13 successful exploratory wells was drilled at a location 160 miles north-northwest of Fort St. John. At the end of the year, land holdings by exploration companies totalled 43,000 sq. miles. A large gas-processing and sulphur-recovery plant was under construction in the Peace River area.

British Columbia's first oil field was developed in 1956 and oil exploration carried out in 1957 indicated that the Province would soon move up from seventh to fourth place among the oil-producing regions in Canada.

Alberta.—Alberta produced 143,900,000 bbl. of crude oil in 1956, an increase of 27.3 p.c. over 1955. Many exploratory wells were drilled in the western part of the Province during 1956, particularly to test the oil and gas potential of Upper Cretaceous, Lower Cretaceous, Mississippian and Devonian formations in and near the deep Alberta Syncline of western Alberta. Two-fifths of the successful exploratory oil wells found production in Upper Cretaceous formations and one-quarter in the Lower Cretaceous; Mississippian and Devonian oil discoveries together accounted for one-quarter of exploratory successes. Triassic and Pre-Devonian wells made up the remainder. Whereas oil reserves were formerly largely confined to formations of Devonian age, an important oil reserve diversification is now developing throughout the geological sequences of the Western Canada sedimentary basin. The Cardium sand of Upper Cretaceous age, which is being extensively developed in the Pembina field southwest of Edmonton, was found to be productive in 1956 at such widespread locations as the southern part of the Peace River area 175 miles north of Pembina, and at Crossfield 18 miles north of Calgary. Another important exploratory event in 1956 was the drilling of the Union Red Earth 12-17 well, 85 miles east-northeast of Peace River town. Much land was taken up in northern Alberta and Saskatchewan following the drilling of this well and the search for oil in the "Granite Wash" formation overlying the Precambrian basement rocks is under way.

Oil-field development proceeded actively in Alberta during 1956 with the Pembina field continuing to account for a large share of the work. This field is now Canada's largest oil producer and one of the major oil sources of North America. At the end of 1956 it had 1,680 wells compared with 808 a year previously. The South Sturgeon Lake field in the Peace River area, the Joffre and Bentley fields near Red Deer in central Alberta, and the Harmattan field near the Sundre and Westward Ho fields northwest of Calgary were the other most actively developed fields in Alberta during the year. Pipeline transportation facilities were completed for these fields in 1956.

Particular attention was paid to oil conservation measures in several oil fields during 1956. In the Pembina field, water injection operations were commenced to ensure a greater ultimate recovery than would be possible by relying only on the primary producing energy in the oil reservoir. The pressure maintenance technique being used is designed to arrest reservoir pressure declines and may provide for the recovery of an additional 560,000,000 bbl. of oil in addition to the 520,000,000 bbl. of primary recoverable reserves in the field as it is now known. Secondary recovery methods are also in use in the Golden Spike, Leduc-Woodbend, Redwater, Westrose and Turner Valley fields. Close supervision of all oil fields in Western Canada is maintained by the Provincial Government to ensure that field operating procedures are in accordance with the best conservation practices.

In 1956, 134 gas wells were completed successfully. Fifty-four of these were field-development wells and the remainder, exploratory. In the past, large gas reserves were developed at the Pincher Creek, Savanna Creek, Jumping Pound, Sarcee, Harmattan-Elkton, Homeglen-Rimbey, Windfall and Chinook Ridge fields and current exploration programs continue to confirm the prospects for a large natural gas reserve growth in western and northwestern Alberta. Twelve of the natural gas discoveries made in 1956 immediately indicated reserves of 10 billion cu. feet or greater. Most of these are on the western side of the Province. Large reserves have also been built up in the plains region of the eastern half of the Province at such fields as Princess, Bindloss, Cessford, Provost and Nevis where relatively shallow drilling is an incentive to continuing search. The recent successful exploratory and development drilling throughout Alberta raised natural gas reserves from 15,600 billion cu. feet in June 1955 to 18,300 billion cu. feet by September 1956.

The present magnitude and rate of growth of natural gas reserves will ensure adequate supplies for Alberta as well as for the Trans-Canada gas pipeline project. Current reserves are estimated at four times the 20-year requirements of the Trans-Canada project.

A number of Alberta's fields produce "wet gas" and during 1956 the daily capacity of natural gas processing facilities was increased from 331,000,000 to 401,000,000 cu. feet. Ten processing plants were in operation in 1956 and a gas-cycling and sulphur-recovery plant was placed on stream in the Pincher Creek gas field early in 1957.

Saskatchewan.—The finding of crude oil in southeastern Saskatchewan, which commenced with the Midale field discovery in 1953 and the Frobisher field discovery in 1954, continues to be one of the most important accomplishments in Western Canada. The rapid oil-field development since 1954 has transformed Saskatchewan from a small producer of heavy and medium gravity crude oils to a comparatively large producer, with an increasing trend towards light oil output.

Oil fields in southeastern Saskatchewan are being developed on the northeastern rim of the Williston Basin, a large structural feature with its centre in North Dakota. Oil occurs in limestone formations of Mississippian age at depths of from 3,100 to 5,400 feet, the average well depth being approximately 4,100 feet. The oil is predominantly light gravity. The extensive data being obtained on the nature of oil occurrence in this part of Saskatchewan are assisting companies to proceed with field programs at a rapid rate and with much success. In 1956, 33 oil discoveries were made in Saskatchewan, 26 of them in the southeastern part of the Province. In 1956 some 550 oil wells were drilled in 16 fields and one-third of all drilling rigs in Western Canada were located within a 5,000-sq. mile area in the southeast corner of Saskatchewan. As a result of this intensive development program, Saskatchewan's crude oil reserves were increased by 48 p.c. during 1956. A number of the fields are close to each other and early in 1957 four of them were joined to form the Steelman field which, by mid-year, had 470 oil wells.

Producing fields on the west side of Saskatchewan are in the vicinities of Lloydminster, Kindersley and Swift Current. In 1956 there was considerable drilling in the Coleville heavy gravity field near Kindersley. Further development took place in the medium gravity oil fields southeast of Swift Current where crude oil is produced for an export market in St. Paul, Minnesota. Oil fields in western Saskatchewan produce from sandstone formations of Lower Cretaceous and Jurassic ages and the average well depth is 3,000 feet.

Until 1955 the comparatively small Smiley field in western Saskatchewan was the Province's only light gravity crude oil producer, but by the end of 1956, as a result of developments in southeastern Saskatchewan, light gravity crude oil accounted for 35 p.c. of the provincial output, medium gravity crude for 48 p.c., and heavy crudes for 17 p.c. The increasing percentage of light gravity oil is giving Saskatchewan access to greater market outlets and thereby permitting rapid growth in production. Output of crude oil almost doubled in 1956, reaching 21,077,000 bbl., and by mid-1957 a similar rate of increase was indicated for that year.

All natural gas reserves are in fields on the west side of the Province and occur predominantly in formations of Cretaceous age. Six gas discoveries were made in 1956 and 26 field development wells were drilled. Saskatchewan's natural gas resources are much smaller than those of Alberta and British Columbia but good progress has been made in opening up Coleville, Brock and Unity field resources for use in Saskatoon, Prince Albert and other north-central communities. In 1956 the Success field was supplying natural gas to Moose Jaw and during 1957 this service was extended to Regina.

Manitoba.—Manitoba's crude oil production dates from 1951. During 1956 oil exploration was somewhat curtailed compared with the previous two years, but field drilling proceeded actively and production rose from 4,145,756 to 5,786,540 bbl. The three principal fields which account for 90 p.c. of the Province's output are in the immediate vicinity of the town of Virden, 23 miles east of the Saskatchewan border. At the end of 1956 these three fields had 86 p.c. of the 736 oil wells in Manitoba. Production comes from formations of Mississippian age. During 1956 and 1957 a search was being made in areas east of Virden for oil occurrences in other geological formations. There are no gas wells in Manitoba.

Yukon and Northwest Territories.—Development drilling was undertaken in the Norman Wells field during 1956 for the first time since the end of World War II. Four oil wells were completed in the field which is on the Mackenzie River, 90 miles south

of the Arctic Circle. There is no other crude oil and no gas production in the Northwest Territories nor any output of oil or gas in the Yukon Territory. Exploration is being continued, however, in a region west of the southwest end of Great Slave Lake and immediately north of the Alberta border.

Eastern Canada.—No oil discoveries of significance were made in *Ontario* during 1956 but field development drilling added appreciably to the oil potential. The Rodney field in Elgin County is the largest producer in Ontario. Provincial production remains small, although the output of 593,370 bbl. in 1956 was close to a record in Ontario's long history of oil field activity which dates from 1858.

The search for natural gas proceeds apace. Drilling in 1956 was under way in the counties of Haldimand, Kent, Welland and Norfolk, and offshore in Lake Erie in the general vicinity of Port Alma. By the end of that year, 34 successful gas wells had been drilled in Lake Erie as far as 4.5 miles from shore. Production of 12.8 billion cu. feet of natural gas from fields in Ontario, together with imports from United States of 16.5 billion cu. feet, supplied markets in Toronto and throughout southwestern Ontario.

In *Quebec*, exploration for oil and gas is being carried on by a number of companies in the St. Lawrence Lowlands between Montreal and Quebec City. Some favourable natural gas results were obtained during drilling in the St. Johns area in 1956 and in the Three Rivers area early in 1957.

The Stony Creek field near Moncton in *New Brunswick* is the only oil and gas field in the Atlantic Provinces. It produced 16,628 bbl. of crude oil and 190,000,000 cu. feet of natural gas in 1956. Minor development drilling was continued in the field.

Petroleum Refining and Marketing.—Forty-three refineries were in operation in Canada at the end of 1956, with a total daily crude oil throughput capacity of 700,050 bbl. The rapid rate of growth of petroleum refining in Canada in recent years is illustrated for each of the principal refining regions in the following tabulation.

PETROLEUM REFINING THROUGHPUT CAPACITY BY REGIONS

| Region | 1939 | | 1950 | | 1956 | |
|---------------------------------|--------------------|--------------|--------------------|--------------|--------------------|--------------|
| | Barrels per Day | p.c. | Barrels per Day | p.c. | Barrels per Day | p.c. |
| Maritime Provinces..... | 32,750 | 16.4 | 22,300 | 6.2 | 42,300 | 6.1 |
| Quebec..... | 64,500 | 32.2 | 143,000 | 39.9 | 247,000 | 35.3 |
| Ontario..... | 44,500 | 22.2 | 75,200 | 21.0 | 159,700 | 22.8 |
| Prairie Provinces and N.W.T.... | 35,570 | 17.8 | 89,525 | 24.9 | 180,800 | 25.8 |
| British Columbia..... | 22,700 | 11.4 | 28,850 | 8.0 | 70,250 | 10.0 |
| CANADA..... | <u>200,020</u> | <u>100.0</u> | <u>358,875</u> | <u>100.0</u> | <u>700,050</u> | <u>100.0</u> |

The progress made in the marketing of Canadian crude oil in Canada is indicated as follows.

PERCENTAGES OF CANADIAN CRUDE OIL RECEIPTS AT REFINERIES

| Region | 1939 | 1946 | 1950 | 1956 |
|------------------------------------|------------|-------------|-------------|-------------|
| | p.c. | p.c. | p.c. | p.c. |
| Maritime Provinces..... | — | — | — | — |
| Quebec..... | — | — | — | 0.3 |
| Ontario..... | 0.4 | 0.5 | 1.0 | 84.5 |
| Prairie Provinces and N. W. T..... | 37.0 | 52.5 | 99.0 | 100.0 |
| British Columbia..... | — | — | — | 100.0 |
| CANADA..... | <u>3.5</u> | <u>10.0</u> | <u>24.4</u> | <u>54.1</u> |

During 1956 Canadian refineries received 231,897,606 bbl. of crude oil, of which 125,592,074 bbl., or 54.1 p.c., were from Canadian sources. The percentage of domestic receipts in Ontario is steadily rising. At the same time, deliveries of foreign crude oil to Montreal and Halifax refineries continue to increase rapidly so that the percentage of domestic crude oil received at Canadian refineries has remained practically constant since 1954.

Exports of Canadian crude oil to the United States rose from 14,833,971 bbl. in 1955 to 42,908,085 bbl. in 1956. The increase was equivalent to 66 p.c. of the total increase in oil field production. Forty-five per cent of the exports went to the State of Washington, a total of 41 p.c. to Minnesota, Wisconsin and Michigan, and 14 p.c. to an export market that developed in California during 1956.

A market for Canadian crude oil has not been established in Montreal. Because of the long pipeline transportation distance from Western Canada fields to the Province of Quebec, market outlets have been more readily developed in Western Canada and in adjacent areas of the United States. The building up of crude oil export markets in the Pacific Coast States and in the mid-western States has reduced Canada's net import balance despite the large imports into Montreal, centre of one-third of the nation's petroleum refining capacity. The increased amount of crude oil sold in Canada and the United States in 1956 raised the degree of petroleum self-sufficiency to 65 p.c. This makes allowance for crude oil imports of 106,470,015 bbl., petroleum product imports of 37,633,519 bbl. and petroleum product exports of 2,729,842 bbl.

Natural Gas Marketing.—During 1956, construction was started on the 2,294-mile Trans-Canada natural gas pipeline system to Eastern Canada and the 650-mile Westcoast Transmission system to the Pacific Coast. The construction stage for each project came after a number of years of planning and preparatory work. As construction proceeded, preparations for the marketing of natural gas were well under way in most centres between Vancouver and Montreal. Marketing utilities were being established and distribution facilities installed. With the commencement by late 1957 of natural gas deliveries in many new marketing areas across Canada, a change in the pattern of fuels usage will begin to take place and 1956 natural gas sales of 143.7 billion cu. feet will be greatly surpassed. Much benefit to the people of Canada will result from the availability of large supplies of natural gas to be used as a fuel and as a raw material for chemical manufacture.

Subsection 4.—Coal

The stabilizing trend that appeared in the coal industry in 1955 has continued despite increasing competition for markets from petroleum and natural gas. There is now some evidence that the demand for coal may shortly begin to rise again—that the increasing impetus of the Canadian economy generally and, in particular, the growing use of coal in the production of thermal-electric power to satisfy the clamour for more energy by the expanding pulp and paper and mining industries will beneficially influence the market for this commodity.

At the same time, the market for coal is decreasing in certain fields; the railways are replacing coal-burning locomotives by diesels and oil burners and certain coke and gas-making plants have been found no longer necessary because of the introduction of natural gas. The necessity to operate only those mines that remain economic under the stress of rising costs has resulted in the closing down of the Albion mine in the Stellarton area of Nova Scotia, the Greenhill mine of West Canadian Collieries Limited in the Crowsnest area of Alberta and the Luscar mine in the Mountain Park area of Alberta.

The industry recorded its fifth consecutive decrease in production in 1955, but the decline was only 94,699 tons from the 1954 production of 14,913,579 tons. In 1956 the downward trend was reversed and production increased again to 14,915,033 tons valued at \$95,466,866, though this was still 22.1 p.c. below the record in 1950. Of the 1956 production, 69.1 p.c. was bituminous coal, 15.2 p.c. subbituminous and 15.7 p.c. lignite.

Nova Scotia contributed about 39 p.c., Alberta 29 p.c., Saskatchewan almost 16 p.c., British Columbia and Yukon 10 p.c. and New Brunswick just under 7 p.c. Only Alberta among the provinces registered a decrease as compared with 1955.

The trend towards higher consumption of coal in evidence in 1955 continued throughout 1956. The 36,313,144 tons consumed in 1956 compared with 33,382,173 tons in 1955 and 32,788,268 tons in 1954. Whereas in 1954 almost 56 p.c. of the coal consumed was imported, in 1956 the percentage was over 61, made up basically of bituminous coal used in Central Canada. Coal sales made by retail fuel dealers decreased 3.4 p.c. from 1954 to 1955, and railway coal by 14.1 p.c., but coal used for industrial purposes increased by 2.8 p.c. From 1955 to 1956 retail coal sales again decreased substantially by 13.2 p.c., but railway coal increased 15.9 p.c. and industrial consumption 6.1 p.c. Thus it is becoming clear that, though sales of coal for household and commercial purposes are yielding very rapidly to competitive liquid and gaseous fuels, industrial coal consumption is beginning to show a healthy upswing. The increase in railway consumption in 1956 is accounted for by the fact that the increase in traffic has surpassed the rate of dieselization and thus has resulted in increased use of coal-burning locomotives.

The consumption of briquettes decreased from 962,000 tons in 1954 to 776,761 tons in 1955 but increased again to 879,208 tons in 1956 despite the discontinued operations of one of the producers in Western Canada. About 70 p.c. of the amount marketed (that is, about 82 p.c. of the Canadian output) was used by the railways in the western provinces mainly as locomotive fuel.

The coal industry is continuing its endeavour to not only maintain but to improve its market position by reducing costs of production and by producing not only better coal but the types and grades of coal most suited to the various consumer demands. Mechanization of underground operations has progressed especially in eastern collieries where most of the coal is now mined by mechanical miners of various types. The Dosco Miner developed by the Dominion Steel and Coal Corporation of Nova Scotia is extensively used in all their mines on longwall faces, but other machines of the ripper type suitable for room and pillar mining are also employed. Continuous mechanical mining has not yet been introduced in Western Canada, but there are several technical and engineering reasons for this, associated either with steepness of coal seam associated with friability, or with the toughness of the coal and the desire to retain a maximum of larger sizes.

The extensive use of strip mining also reduces coal costs. Strip mining is practised in all provinces except Nova Scotia, and over 36 p.c. of Canada's output is produced by this method. Practically the whole output in Saskatchewan is strip mined, over 80 p.c. in New Brunswick, about 47 p.c. in Alberta and 25 p.c. in British Columbia. On an average the output per man-day in strip mining increased from 12.5 tons in 1954 to 13.3 tons in 1956, compared with an increase of from 2.6 tons to 2.8 tons for underground. Over the period, output per man-day increased 10 p.c.

In an effort to produce better quality coals the industry continues to direct attention to the use of modern methods of beneficiation such as cleaning, drying, dust-proofing, freeze-proofing and the briquetting of fines. Additional facilities for cleaning and drying of fines have recently been installed at various collieries in both Eastern and Western Canada.

The Federal Department of Mines and Technical Surveys assists the industry by carrying out a group of research projects concerned with the beneficiation and utilization of Canadian coal. Special attention is being given to the cleaning of fines from western Canadian bituminous coals that are particularly friable, and to studying the coking properties of the coals in relation to the possible development of metallurgical industries, especially in Western Canada. The use of coal as a reductant and in the chemical industry is also being studied. In addition the Department is continuing the study of the phenomena of bump and outburst occurring in certain coal mines with the long-range objective of evaluating the causes of these phenomena so that mining at depth may be safe and economical. Detailed stratigraphic and palaeontological studies have been conducted in or near the coalfields of Nova Scotia and New Brunswick to assist in the precise correlation of

coal-bearing strata and their contained coal seams. Petrographic studies of various Canadian coals are also being conducted to aid in a better understanding of the coals in relation to utilization. The Department, through the Geological Survey, maintains a laboratory at Sydney, N.S., in co-operation with the Nova Scotia Department of Mines and the Nova Scotia Research Foundation, and, through the Division of Fuels of the Mines Branch, a laboratory in Edmonton, Alta., in co-operation with the Research Council of Alberta. Both offices assist in the development of the coal industry.

Details on coal in the respective coal-producing provinces follow.

Nova Scotia and New Brunswick.—Nova Scotia produces high-volatile and medium-volatile bituminous coking coals in the Sydney, Cumberland and Pictou areas and some non-coking bituminous coal in the Inverness area. Production in 1955 and 1956 was somewhat lower than in 1954, amounting to 5,787,915 tons valued at \$8.817 per ton in 1956.

Many of the operations have been mechanized to reduce production costs. The Dominion Coal Company Limited plans to establish a large central cleaning plant in the Sydney area, and the Four Star Collieries Limited will also operate a cleaning plant in the Broughton area. When these plants are completed more than 80 p.c. of Nova Scotia's coal production will be benefited by modern methods of cleaning. At the Princess colliery at Sydney Mines, Old Sydney Collieries Limited completed construction of an inclined tunnel from the shaft bottom to the surface to facilitate and reduce costs of transportation of coal from the mine to the cleaning plant. The tunnel is equipped with a 42-inch-wide, 3,800-ft.-long belt conveyor with a capacity of 750 tons per hour.

New Brunswick coal output comes mainly from a single thin seam of high-volatile bituminous coal in the Minto area. Production increased from 781,271 tons in 1954 to 983,482 tons in 1956. In 1955 the first mechanical coal-cleaning plant for cleaning 2 x 0 inch slack was established in this area. As a result of its success, from a technical and marketing viewpoint, a second plant to clean 6 x $\frac{1}{4}$ inch slack was started by another operator in 1956. These two plants will allow for the cleaning of over 34 p.c. of the output of New Brunswick. Both plants are equipped with modern mechanical and thermal drying machines.

Much of the output of the two provinces is used locally for industrial and domestic purposes. The quantity used for thermal power has increased very substantially. About 36 p.c. of the 1956 output was shipped to Central Canada for commercial, industrial and railway use.

Saskatchewan.—This Province produces only lignite coal from the Bienfait and Roche Percee fields in the Souris area. Production continued to increase and in 1956 amounted to 2,302,948 tons as against 2,116,740 tons in 1954. The coal was valued at \$1.829 per ton at the mine. Approximately 52 p.c. of the production was shipped to Manitoba and about 11 p.c. to Ontario for industrial, commercial and household use. With the extensive developments in progress for the production of thermal power in Saskatchewan and Manitoba, it is expected that lignite production will increase very sharply during the next two years.

The output of briquettes, which are made from carbonized lignite and used entirely for household and commercial purposes, was reduced to 39,000 tons in 1956, a decline of 2,000 tons from 1954.

Alberta.—Alberta produces almost all types of coal including a relatively small but growing tonnage of semi-anthracite from the Cascade area. Coking bituminous coal ranging from high to medium volatile was produced in the Crowsnest and Mountain Park areas, although towards the end of 1956 the last operator in the Mountain Park area closed down. Lower rank bituminous non-coking coals are produced in the Lethbridge and Coalspur areas and in several other areas of the foothills. The coal in the Drumheller, Edmonton, Brooks, Camrose, Castor and Carbon areas is subbituminous and that in the Tofield, Redcliff and several other areas is on the border of subbituminous and lignite. All these lower rank coals were used mainly for household and commercial purposes but industrial use is increasing, especially in thermal power production.

Production declined from 4,859,049 tons in 1954 to 4,361,274 tons in 1956. Since the discovery of the Leduc oil field in 1947, coal output in Alberta has declined by 46 p.c. from a production of 8,070,430 tons. About 52 p.c. of the 1956 output was subbituminous coal. The average value of bituminous coal was \$6.069 per ton and of subbituminous coal \$4.745. As already mentioned, the one remaining mine in the Mountain Park area suspended operations in 1956 as did a former large producer of railway coal in the Coal-spur area.

The output of briquettes, which are made from the semi-anthracite coals of the Cascade area and the medium-volatile bituminous coals of the Crowsnest area, amounted to 525,202 tons in 1956 compared with 637,000 tons in 1954. About 17 p.c. was prepared from semi-anthracite coal.

British Columbia.—Bituminous coking coal, ranging from high to low volatile, is mined on Vancouver Island and in the East Kootenay (Crowsnest), Telkwa and Nicola areas. Small quantities of subbituminous coal are produced in the Princeton field. Production in 1956 amounted to 1,469,791 tons as compared with the 1954 total of 1,299,510 tons. The average value of bituminous coal was \$5.973 per ton and subbituminous coal \$5.894 per ton.

Medium-temperature oven (by-product) coke for industrial consumption is manufactured chiefly in the Crowsnest area. The only briquetting plant in the Province produced over 188,000 tons of railway briquettes in 1956 as against 150,000 tons in 1954. A substantial quantity of coking coal from the Crowsnest area was exported to the United States for blending with Utah coals to upgrade the metallurgical coke.

Section 2.—Government Aid to the Mineral Industry*

Subsection 1.—Federal Government Aid

The Department of Mines and Technical Surveys.—The Federal Department of Mines and Technical Surveys came into being on Jan. 20, 1950, in the reorganization of the former Department of Mines and Resources. The Department has five branches—Surveys and Mapping Branch, Geological Survey of Canada, Mines Branch, Dominion Observatories, and Geographical Branch. The Department's functions include the administration of the Emergency Gold Mining Assistance Act and of the Explosives Act.

Surveys and Mapping Branch.—The Branch provides the base maps required for use in the development of Canada's natural resources, produces and distributes all Canadian aids to navigation, is responsible for legal surveys of federal lands and provides a national system of levelling and precision surveys for use as geodetic control by federal, provincial and private agencies.

The Geodetic Survey provides the original surveys that form the framework or basic control for mapping throughout Canada and for engineering and surveying projects related to natural resources development. Survey stations are established at fairly regular intervals across Canada and are marked by permanent monuments whose latitudes, longitudes and elevations above mean sea level are determined with a high degree of accuracy. The determination of geographical position by astronomical observations for mapping purposes in northern areas is being superseded by shoran trilateration in which the adaptation of radar is meeting with success.

The Topographical Survey provides topographical maps that show all significant natural and artificial features fundamental to the study and economic development of mineral and other natural resources. The Field Survey Section is responsible for the field surveys that provide ground control for mapping from aerial photographs, and the Air Survey Section plots and produces maps from these aerial photographs. The National

* Revised, under the direction of the Deputy Minister, in the Editorial and Information Division, Department of Mines and Technical Surveys, Ottawa.

Air Photographic Library indexes, preserves and distributes prints of all aerial photography done by or for the Federal Government. The Topographical Survey also administers the Canadian Board on Geographical Names.

The Legal Surveys and Aeronautical Charts Division makes and records legal surveys of federal Crown lands in the Yukon and Northwest Territories, the National Parks and Indian lands and reserves. This Division prepares aeronautical charts and electoral maps and prepares and distributes flight manuals.

The Canadian Hydrographic Service is responsible for the charting of the coastal and inland navigable waters of Canada, the analyses of tides and tidal current phenomena and the investigation of water-surface elevations of the St. Lawrence-Great Lakes waterway. The resultant data are published in the form of official navigation charts, volumes of Sailing Directions, Tide Tables and Water Level Bulletins.

The Map Compilation and Reproduction Division prepares, drafts and reproduces maps, charts and plans for lithographic printing in multicolour. The work includes the preparation and photo-reproduction of air chart bases, the reproduction and printing of air information for aeronautical charts, the preparation and printing of topographic maps and the reproduction and printing of hydrographic charts.

The Branch had 14 geodetic, 27 topographic, 15 legal survey and 20 hydrographic parties in the field in 1957.

Geological Survey of Canada.—The primary function of the Geological Survey is to obtain information on the geology of Canada that will be of assistance in the search for and development of mineral deposits. The results of its activities also provide a basis for the appraisal and conservation of Canada's mineral resources generally including water supplies, for soil surveys and for the solution of geological problems that frequently arise in construction projects. Reports issued by the Geological Survey include: memoirs with fairly complete descriptive accounts of the geology of particular areas, usually accompanied by geological maps; bulletins dealing with problems rather than areas; papers issued as soon as possible after the close of the field season, treating separately of each area and summarizing the information acquired; and the Economic Geology Series reports, dealing in a comprehensive way with mineral deposits of a particular type. Coloured geological maps are issued on various scales from one inch equalling a few hundred feet to one inch equalling eight or more miles, the common standard scales being one inch to one mile and one inch to four miles. Preliminary maps showing the geology are issued shortly after the field season ends for those areas where the search for metals or minerals is active.

In 1957 the Geological Survey had 72 parties in the field, one more than in 1956. The program featured two large helicopter projects, Operation Mackenzie and Operation Fort George. In Operation Mackenzie, nine officers of the Geological Survey and nine student assistants used helicopters to map 100,000 sq. miles of promising oil and gas territory in the Upper Mackenzie River basin in Northwest Territories lying between latitudes 60° and 64° and extending from longitude 126° to the western edge of the Canadian Shield. In Operation Fort George, three officers and three assistants mapped some 35,000 sq. miles of a 300-mile by 400-mile block of Quebec lying between latitudes 52° and 56° and extending from the Hudson and James Bay coast inland to longitude 68°. This is part of the largest unmapped area in the Canadian Shield. Operation Fort George will be continued in 1958.

The Precambrian Division is responsible for mapping and studying the rocks of the Canadian Shield and of the Arctic Islands. These studies help to establish the geological history and structure of the regions and the information is used as a guide in the search for mineral deposits.

The Post Precambrian Division is responsible for mapping and studying the rocks of the Appalachian and Cordilleran regions and the unconsolidated materials throughout Canada. The application of geology to engineering problems and the study of Canada's groundwater resources are also the responsibility of this Division.

The Fuels and Stratigraphic Geology Division includes stratigraphic palæontology, the geology of fuels (oil, natural gas and coal), subsurface geology and research on coal. Its function is to establish the character, age, thickness and correlation of both exposed and concealed sedimentary formations and to map the distribution and structure of these formations with the object of determining the economic possibilities of prospective oil, gas and coal bearing areas of Canada.

The Mineralogy Division makes mineralogical, geochemical, petrological, and isotopic studies of Canadian mineral deposits and associated rocks. Laboratories provide mineral identifications for the public, supply officers of the Survey with mineralogical, geochemical and geochronological data, and permit research on the genesis of ores, fuels and rocks. Systematic mineral collections are maintained and mineral and rock collections are prepared for use by prospectors and educational institutions.

The Mineral Deposits Division conducts special field studies on the geology of mineral deposits with particular regard to economic possibilities, origin, distribution and the establishment of clues for prospecting for similar deposits. Reports and other information on the geology of Canadian mineral deposits are compiled and special reports on deposits and prospecting published. The Division acts as official agent of the Atomic Energy Control Board in conducting research on uranium deposits and in receiving and compiling reports from companies operating under exploration and mining permits from the Board, and maintains a laboratory for making radiometric assays and identifications of radioactive minerals.

The Geophysics Division gathers, compiles and interprets geophysical data relating to the geology of Canada. Fundamental research is carried out in some phases of geophysical work.

Mines Branch.—The Branch is concerned in the main with the technological problems of the mineral industry and maintains well equipped ore-testing, mineral-dressing, fuel research, ceramic, radioactivity, industrial minerals and physical metallurgical laboratories.

The Mineral Dressing and Process Metallurgy Division serves Canada's mineral industry through tests, investigations and research on all types of Canadian ores. The main purposes of these activities are to devise economic and efficient methods of processing ores—a service of special benefit to new mining ventures and particularly to those developing low grade or complex deposits—and to assist mine operators in solving problems encountered in mill practice.

The work of the Radioactivity Division is centred on investigations relating to treatment of radioactive and less common ores. Activities include research on ore treatment and chemical process methods, provision of chemical and radiometric assay services, development of analytical methods, mineralogical investigations, also work on application of radiometric methods and tracer techniques in the mining and metallurgical industries. Much of the work done is of direct assistance to industry.

The work of the Industrial Minerals Division consists of tests, research and investigative work on industrial minerals, including water used for industrial purposes. The Division makes field studies of deposits, examines industrial processes utilizing them and conducts research into methods of beneficiating minerals from deposits of marginal and submarginal quality to bring them to the standards demanded by modern industry.

The Fuels Division studies the properties of fossil fuels in Canada to determine the most efficient means of utilizing fuel resources. Most of the work on coal is directed to investigations on the immediate problems of the industry and to engineering studies on the most efficient use of coal in combustion applications with particular reference to thermally generated electric power. Such investigations include work on the evaluation of cleaning performance and the beneficiation of coal fines which are difficult to market, the uses of coal in the metallurgical industries and the study of stress phenomena in mining. Research in petroleum is directed mainly to problems in the refining of heavy crudes and bitumens, and to the chemical evaluation of oils and bituminous substances for classification and genetic purposes.

The Physical Metallurgy Division aids the metal industries through the development of new alloys, new manufacturing techniques and new applications and in activities aimed toward improving present practices in metal fabrication. It serves the Department of National Defence by extensive research and investigative work concerned broadly with the development of defence materials and prototype equipment and with the metallurgical problems of that Department. The Division is also operative in the nuclear metallurgy field.

Dominion Observatories.—The two main units of the Dominion Observatories are the Dominion Observatory at Ottawa, Ont., and the Dominion Astrophysical Observatory at Victoria, B.C. Permanent magnetic observatories are maintained at Agincourt, Ont., Meanook, Alta., and at Resolute Bay and Baker Lake, N.W.T. Seismic stations for recording earthquakes are operated at Victoria, Horseshoe Bay and Alberni, B.C.; Banff, Alta.; Saskatoon, Sask.; Ottawa, Ont.; Seven Falls and Shawinigan Falls, Que.; Halifax, N.S.; and Resolute, N.W.T.

The Dominion Observatory, Ottawa, Ont., is responsible for the time service of Canada which involves nightly astronomical observations of star positions and radio broadcast services for distributing accurate time to all parts of Canada. Other astronomical activities centred at Ottawa include upper atmospheric studies by means of meteor observations, studies of the sun and its effect on earthly conditions and mathematical studies of the atmospheres of the sun and stars. The geophysical work, also administered from Ottawa, includes the magnetic survey of Canada with emphasis on aids to air and sea navigation, as well as field and observatory work of interest to the geophysical prospector. The methods of seismology are employed to study important aspects of the earth's crust in Canada and to assist in world-wide investigations of the earth's interior. Gravity observations are carried on throughout Canada with a generally similar purpose, special attention being paid to methods of locating mineral deposits.

The Dominion Astrophysical Observatory, Victoria, B.C., is devoted to fundamental research into the physical characteristics of the sun, stars, planets and the material of interstellar space. Its 73-inch reflecting telescope is one of the largest in the world and through its use many important contributions have been made to astronomical knowledge.

The Geographical Branch.—The function of the Branch is to organize and make available all the geographical data on Canada that might be of use in promoting the economic, commercial and social welfare of Canada. The work is of two kinds—the compilation of geographical material of national significance, and geographical surveys in the field.

Mineral Resources Division.—Formerly a unit of the Mines Branch, this Division is now a unit of the Department's Administration Branch. It provides a mineral information service that is freely used by government departments, mining and allied industries, and others interested in mining or its significance in the Canadian economy. A mineral resources index inventory is maintained of all known occurrences and of mines, both active and potential. The Division makes economic studies of different phases of the mining industry. It gives technical advice as required for the administration of the Emergency Gold Mining Assistance Act, prepares reports on request to aid in the administration of such matters as tax exemptions on new mining properties, and prepares reports and briefs on general legislation, taxation and tariff matters connected with the mineral industry.

The Dominion Coal Board.*—The Board was established by the Dominion Coal Board Act (R.S.C. 1952, c. 86) which was proclaimed on Oct. 21, 1947. By this Act the Board was constituted a department of government to advise on all matters relating to the production, importation, distribution and use of coal in Canada. The Board is also charged with the responsibility of advising upon and administering transportation subventions.

* Prepared under the direction of W. E. Uren, O.B.E., Chairman of the Dominion Coal Board.

Ancillary to these principal duties the Board is empowered to undertake research and investigations with respect to:—

- (1) the systems and methods of mining coal;
- (2) the problems and techniques of marketing and distributing coal;
- (3) the physical and chemical characteristics of coal produced in Canada with a view to developing new uses therefor;
- (4) the position of coal in relation to other forms of fuel or energy available for use in Canada;
- (5) the cost of production and distribution of coal and the accounting methods adopted or used by persons dealing in coal;
- (6) the co-ordination of the activities of Government Departments relating to coal;
- (7) such other matters as the Minister may request or as the Board may deem necessary for carrying out any of the provisions or purposes of the Act.

In addition the Dominion Coal Board Act provides authority in the event of a national fuel emergency to ensure that adequate supplies of fuel are made available to meet Canadian requirements.

Assistance by transportation subventions, which have been maintained in varying degrees during the past 28 years, was designed to further the movement of Canadian coals by equalizing as far as possible the laid down costs of Canadian coals with imported coals. As these costs and the conditions of the coal industry are subject to variation, the Board has to review from time to time the rates of subvention and the areas where the assistance is required. The subventions in respect of the various Canadian coals are authorized by Orders in Council and are paid from moneys voted by Parliament for the purpose from year to year. During the year ended Mar. 31, 1957, a total of 3,321,614 tons were shipped under subvention and \$9,115,082 was paid in assistance.

As agent to the Minister of Mines and Technical Surveys, the Board has continued to handle application for loans under the Maritime Coal Production Assistance Act (R.S.C. 1952, c. 179) and administer the loans granted thereunder. The Board has also continued to administer payment under the Canadian Coal Equality Act (R.S.C. 1952, c. 34) which provides a subsidy on Canadian coal used in the manufacture of coke for metallurgical purposes. In the fiscal year 1956-57, 685,973 tons were bonused at a cost of \$339,556.

The Dominion Coal Board has maintained a continuous review of Canada's energy requirements. In view of the growing impact of oil and natural gas on the markets for Canadian coal,* the Board and its staff have intensified the study of the relation of the competing sources of energy and of possible new outlets for the solid fuel, especially in the field of thermal power.

The Board, since its inception, has worked toward the co-ordination of the activities of various government departments and other bodies relating to coal. On the matter of technical research as related to marketing and distributing coal, the Board has maintained close liaison with the Division of Fuels of the Department of Mines and Technical Surveys. Dominion-provincial conferences on coal research have been held annually since 1949 for the purpose of co-ordination and exchange of ideas.

Government purchases of fuel which constitute an important growing outlet for coal has claimed a greater amount of the Board's time. The Interdepartmental Committee on Fuel, set up in the past to co-ordinate and advise on the purchase and supply of fuel to Armed Services, has remained active. Furthermore, the Dominion Fuel Committee, which was organized in 1956 along similar lines as an advisory body to other government departments, has already demonstrated the value of the establishment of this group.

In a wider sphere the Chairman of the Board has met annually with the Coal Policy Committee of the Provincial Ministers of Mines and the Board has given consideration to recommendations made by the latter body relating to coal. The Board has also kept contact with trade and other associations concerned with the various phases of the Canadian coal industry in order to foster better mutual understanding of governmental and private endeavour. It has generally constituted a central agency through which representations may be made to the Government.

* See pp. 510-515.

The Board has available a comprehensive fund of information on all matters respecting coal dating back to the inception of its predecessor, the Dominion Fuel Board, in 1922. Many other departments of government continue to take advantage of this situation by consultations on various matters having to do with the supply and marketing of coal. The Board maintains the closest co-operation with the Division of Fuels of the Department of Mines and Technical Surveys on fuel problems.

Pursuant to the recommendations of the Royal Commission on Coal (1946), the Board has continued to work for a reduction of customs duties and sales tax on coal mining machinery. It has also maintained its efforts to create a uniform system of coal mine cost accounting which would provide an accurate presentation of the cost of production.

The Dominion Coal Board consists of seven members including the Chairman who is its Chief Executive Officer and has the status of a deputy minister. The Board is responsible to, and subject to the direction of, the Minister of Mines and Technical Surveys.

Subsection 2.—Provincial Government Aid*

Newfoundland.—The Newfoundland Government, through its Mines Branch, provides several valuable services to those interested in prospecting and mining. It will supply certain geological maps of specific areas to interested parties. It will identify specimens sent in from Newfoundland and Labrador and will assay by chemical means those that appear to have some mineral content. If good specimens from a known area warrant further help, a geologist from the Department of Mines and Resources will visit the locality and give advice. Prospecting and mining permits are issued by the Department and claims are registered.

Nova Scotia.—Under the provisions of the Mines Act (R.S.N.S. 1954, c. 179), the Government of Nova Scotia may assist a mining company or operator in the sinking of shafts, slopes, deeps and winzes and the driving of adits, tunnels, crosscuts, raises and levels. This assistance may take the form of work performed under contract, the payment of bills for materials and labour or the guarantee of bank loans. Any such work must be approved by the Department of Mines. The Government is also authorized to assist the mining industry to procure power on the most economical basis and may guarantee the Nova Scotia Power Commission against any loss incurred on account of capital investments made for that purpose or revenue. Mining machinery and equipment that may be used in searching for or testing and mining minerals may be made available through the Government. Such equipment is under the direct supervision of the Chief Mining Engineer.

The Government of Nova Scotia is also empowered to make any regulations considered necessary for increasing the output of coal. Such regulations cover the appropriation on payment, of unworked coal lands, operation of coal mines, loans or guarantees for loans. Close co-operation is maintained with the Federal Government in carrying out federal regulations made to secure increased production and economical distribution of coal from the mines of the Province.

New Brunswick.—There are five divisions under the Mines Branch of the Department of Lands and Mines. The *Mineral Lands Division* administers the disposition of Crown mineral rights including the issuing of prospecting licences, recording of mining claims, issuing of mining licences and leases and other matters pertaining thereto. Detailed and index claim maps are prepared for distribution. The *Mine Inspection and Engineering Division* administers the safety regulations governing operations under the Mining Act. Regular inspections of all mines are performed. Laboratory facilities are maintained. It is the responsibility of this Division to approve equipment used in mines. The *Geological Division* carries on general and detailed geological mapping and investigation. Maps and reports are prepared for distribution. Mineral and rock specimens are examined for prospectors. Preliminary examinations of mineral prospects are performed where requested and circumstances warrant. The *Mine Assessment Division* is responsible for collection of mining tax and royalties and preparation of statistics concerning mineral production.

* Compiled from material supplied by the respective provincial governments.

The *Bathurst Office Division* serves as recording office for northeastern New Brunswick. In addition, claim maps as well as topographical, geological and aeromagnetic maps are available for inspection and distribution. The staff is prepared to provide information concerning the Mining Act and the use of various types of maps.

Quebec.—The Mining Act (R.S.Q. 1941, c. 196) authorizes the Quebec Department of Mines to build, maintain and improve roads needed for mining development. Such work is done by contract under the supervision of departmental engineers. The Act gives the Department considerable latitude in this respect. Certain major roads have been built to new mining districts and completely paid for; on the other hand if a particular property requires a branch road from an established highway the owner may be required to contribute a portion of the cost. To prevent the development of uncontrolled settlements in the vicinity of operating mines the Department regulates the use of land and permits the establishment of well organized communities. The municipal organization of such communities is administered by the Department of Municipal Affairs.

The Department maintains well equipped laboratories for the benefit of prospectors, geologists, engineers and mine operators. The facilities include equipment for mineralogy, petrography, ore dressing, and analysis by wet or dry assays, spectrography or X-ray. Qualitative and mineralogical determinations are made free but quantitative analyses are made for a fee according to a tariff schedule. The Mining Act provides free coupons to be used by prospectors in paying for such analyses.

The Province has authorized the establishment of research laboratories to assist mining and metallurgical enterprises in the processes and techniques of extracting, transforming and utilizing ores.

The Department undertakes geological mapping and inspection. The work is divided between two branches, one responsible for reconnaissance (areal) mapping, the other doing detailed mapping in mining districts and inspection of individual deposits or properties. Field parties are headed by geologists or mining engineers. The published reports on these investigations are distributed free upon request. During the field season about 35 parties are maintained in different sections of the Province. Offices, in charge of resident geologists, are maintained in mining districts, to collect, preserve and compile geological information disclosed by mining explorations and individual sheets of the compilation are made available to the public.

The Department employs inspectors whose duties are almost exclusively concerned with the safety of workmen in operating mines. Three Mobile Mine Rescue Stations are also operated and a mine rescue training program conducted throughout the Province.

In the field of education for prospectors, five-week courses are organized each year at Laval and Montreal Universities. University scholarships are granted each year to deserving undergraduates and postgraduate students in mining, geology and metallurgy, thus contributing to the training of qualified engineers for the benefit of the mining industry. Lectures are given to prospectors at different localities throughout the Province.

Ontario.—The Ontario Department of Mines renders a multiplicity of services of direct assistance to the mining industry within the Province, as briefly enumerated below.

Mining Lands Branch.—This Branch handles all matters dealing with the recording of mining claims, assessment work, etc., and the final issuance of title to mining lands. As a service to the mining public, individual township maps are prepared and kept up to date showing lands open for staking and recorded and patented claims therein. As new surveys are made or later data become available maps are revised in keeping with such information. District Mining Recorders maintain offices at strategic locations throughout the Province.

Geological Branch.—A continuing program of geological mapping and investigation is carried out by the geological staff of the Department. Detailed reports and geological maps of the areas studied are made available to the public. In many of the active areas

of the Province resident geologists are engaged to gather and make available to the public, information concerning geological conditions, exploration and development within their respective districts. One geologist specializing in industrial minerals is maintained on the staff to examine deposits of this type, to investigate methods of treatment and recovery of such minerals and to compile data on the uses, specifications and markets for such products. Collection and dissemination of information on groundwater resources is also a function of the Geological Branch. During the winter months courses of instruction for prospectors are held in various centres throughout the Province.

Laboratories Branch.—The Provincial Assay Office located in the East Block of the Parliament Buildings, Toronto, carries out wet analyses and assays of metal and rock constituents on a custom fee basis and also renders the same service free of charge to holders of valid assay coupons issued for the performance of assessment work on mining claims. The Timiskaming Testing Laboratories situated at Cobalt, in addition to performing fire assays and chemical analyses, conducts a bulk sampling plant mainly to assist the producers of the area in the marketing of the cobalt-silver ores. A Cable Testing Laboratory, wherein all hoisting ropes in use at the mines are periodically tested, is operated under the supervision of the Inspection Branch.

Inspection Branch.—The main function of this Branch is the regular examination of all operating mines, quarries, sand and gravel pits and certain metallurgical works with a view to ensuring proper conditions of health and safety to the men employed. District offices to serve the local areas are maintained in the major mining centres of the Province. Mine rescue stations in the principal mining sections are operated under the supervision of the Inspection Branch.

Exhibitions.—The Department each year presents displays pertaining to mining within the Province at such exhibitions as the Central Canada at Ottawa, the Canadian National at Toronto and at other centres from time to time.

Publications Branch.—All maps and reports of the Department are distributed through the agency of the Publications Branch located at the main office of the Department.

Library.—A mining library for the use of the Department and the public is maintained within the Department. This library is comprised mainly of publications and maps of the Federal and Provincial Governments of Canada as well as of numerous periodicals and bulletins from the United States.

Mining and Access Roads.—In 1951 the Department of Mines undertook a program of road construction in the mineralized areas of the Province, to open them for prospecting and development, and to facilitate the actual operation of mining enterprises. When the importance of this program in its relation to the whole development of northern Ontario became apparent, the Government decided that its scope should be widened, and, with that end in view, an interdepartmental committee was set up early in 1955 to decide on matters of policy, and to determine the locations and priorities of the proposed roads. The Minister of Mines sits on this committee with the Ministers of Lands and Forests, of Public Works, and of Highways.

The Department of Highways supervises the construction of all access roads. Certain roads may be subsidized while others may be financed solely by Department of Mines funds. The sum of \$1,000,000 a year has been made available for this project. Thirty-nine roads, totalling about 420 miles, have been completed since 1951.

Manitoba.—The Mines Branch of the Manitoba Department of Mines and Natural Resources offers five main services of assistance to the mining industry: maintenance, by the Mining Recorder's office at Winnipeg and The Pas, of all records essential to the granting and retention of titles to every mineral location in Manitoba; compilation, by the geological staff of the Branch, of historical and current information pertinent to mineral occurrences of interest and expansion of this information by a continuing program of geological mapping; enforcement of mine safety regulations and, by collaboration with industry, introduction of new practices such as those concerned with mine ventilation and the training of mine rescue crews which contribute to the health and welfare of mine workers; and maintenance of a chemical and assay laboratory to assist the prospector and the professional man in the classification of rocks and minerals and the evaluation of mineral occurrences.

Manitoba also aids the mining industry by the construction of access roads to mining districts.

Saskatchewan.—The assistance given to the mining industry by the Saskatchewan Government consists of: the maintenance at Regina of a Geology Department, under a Chief Geologist (Precambrian); resident geologists stationed in or near the principal mining areas; geological survey parties and reports; prospectors' school and prospectors' assistance plan. The Chief Geologist and staff are available at all times to give information and other help to interested parties. A resident geologist is stationed at Uranium City so as to give all possible assistance to prospectors in that area. During the summer months geological survey parties study and map attractive areas and prepare reports which are made available to anyone interested. The prospectors' school gives basic training in geology, mineralogy and prospecting and exploration techniques to future prospectors. Prospecting has become a skilled and specialized trade and instruction in this field will help young men get a start in a profession very vital to the mining industry of Canada. The prospectors' assistance plan, which is intended to encourage prospecting, assists bona fide prospectors by way of equipment and transportation and provides technical advice regarding geologically favourable areas. Courses on identification of minerals and the use of the geiger counter are conducted at various centres in northern Saskatchewan which are largely settled by Indians and métis.

A long-term program of geophysical surveying is under way. In 1957 an airborne magnetometer and electromagnetic survey was made of an area of approximately 1,700 sq. miles. The resulting maps will be sold at a nominal price to the prospecting and mining fraternity to assist them in utilizing this approach to prospecting.

Alberta.—Alberta Government assistance to the mining industry is diversified in character. The Mines Division of the Department of Mines and Minerals regulates coal mines and quarries and maintains standards of safety by inspection and certification of workers. The Workmen's Compensation Board also maintains safety standards and trains mine rescue crews. The oil and gas industries are served in a similar way by the Petroleum and Natural Gas Conservation Board. Its regulatory measures, however, are also concerned with the prevention of waste of oil and gas resources and with giving each owner of oil and gas rights the opportunity of obtaining a fair share of production. This Board compiles periodic reports and annual records which are of invaluable assistance in oil development in Alberta. The mining industry is also served by the Research Council of Alberta which has made geological surveys of most of the Province and has carried forward projects concerned with the uses and development of minerals. The Council has

studied the occurrence, uses and analysis of Alberta coals and their particular chemical and physical properties, the use of coals in the generation of power, the upgrading and the cleaning of coal and has also studied briquetting, blending, abrasion loss, shatter and crushing strength, asphalt binders and dust-proofing of coal. Studies have been made of glass sands, salt, fertilizers, cement manufacture and brick and tile manufacture.

The Province from time to time has had Commissions examine various aspects of the mining industry when it was considered that their findings would be of assistance in developing such industries. The Province, together with the Canadian Association of Oil Well Drilling Contractors and the Western Canada Petroleum Association, maintains a detailed supervisory and safety training program concerned with the drilling of oil and gas wells. Of assistance also to mining companies and oil companies are the special deductions provided for in the Alberta Corporation Income Tax Act. These follow the parallel provisions in the Federal Income Tax Act.

British Columbia.—The Department of Mines of British Columbia provides the following services: detailed geological mapping as a supplement to the work of the Geological Survey of Canada; free assaying and analytical work for prospectors registered with the Department; assistance in the field to the prospector by departmental engineers and geologists; grubstakes, limited to a maximum of \$500, for prospectors; assistance in the construction of mining roads and trails; and inspection of mines to ensure safe operating conditions.

Section 3.—Mining Legislation

Federal Mining Laws and Regulations.—The Federal Government administers the mineral properties of the Yukon and Northwest Territories as well as those within Indian reserves and in National Parks.

Mining Acts and Regulations covering the Yukon and Northwest Territories are administered by the Mining and Lands Division, Northern Administration and Lands Branch, Department of Northern Affairs and National Resources. Mineral rights underlying grants issued for Federal lands are reserved to the Crown in the Yukon and Northwest Territories.

Mining rights in the Yukon and Northwest Territories may be acquired by staking claims under the appropriate Act or Regulations. Twenty-one-year leases of claims may be acquired. These leases are renewable.

The disposal of minerals occurring in Indian reserves is subject to the consent of the Indians occupying the reserve and to treaties relating thereto.

The Acts and Regulations governing mining and quarrying on federal lands are summarized in Report No. 854, entitled *Digest of the Mining Laws of Canada*, issued by the Mines Branch, Department of Mines and Technical Surveys, Ottawa. This publication also lists all the laws and regulations pertaining to mining on federal lands. Copies of these individual Acts and Regulations may be obtained by applying to the Northern Administration and Lands Branch mentioned above. Another publication of interest in connection with mining regulations and available from the Mineral Resources Division of the Department of Mines and Technical Surveys is entitled *Summary Review of Federal Taxation and Certain Other Federal Legislation Affecting Mining, Oil and Natural Gas Enterprises in Canada*.

Provincial Mining Laws and Regulations.*—All Crown mineral lands lying within the boundaries of the several provinces (with the exception of those within Indian reserves and National Parks which are under the jurisdiction of the Federal Government) are administered by the respective provincial governments.

The granting of land in any province except Ontario and Nova Scotia no longer carries with it mining rights upon or under such land. In Ontario mineral rights are expressly reserved if they are not to be included. In Nova Scotia all minerals belong to the Crown except limestone, gypsum and building materials and, in granting land from the Crown, the right to these minerals goes with the title. In Newfoundland mineral and quarry rights are expressly reserved. Some early grants in British Columbia, Alberta, Saskatchewan, Manitoba, New Brunswick, Quebec and Newfoundland also included certain mineral rights. Otherwise mining rights except in Newfoundland must be separately obtained by lease or grant from the provincial authority administering the mining laws and regulations. Mining activities may be classified as placer, general minerals (or veined minerals and bedded minerals), fuels (coal, petroleum, gas) and quarrying. Provincial mining regulations under these divisions are summarized as follows:—

Placer.—In those provinces in which placer deposits occur there are regulations defining the size of placer holdings, the terms under which they may be acquired and held and the royalties to be paid.

General Minerals.—These minerals are sometimes described as quartz, lode, or minerals in place. With the exception of British Columbia the most elaborate laws and regulations apply in this division. In all provinces except Alberta a prospector's or miner's licence, valid for one year, must be obtained to search for mineral deposits, the licence being general in some areas but limited in others. A claim of promising ground of a specified size may then be staked. This claim must be recorded within a time limit and payment of recording fees made except in Quebec where no fees are required. Work to a specified value per annum must be performed upon the claim for a period of up to ten years. There is no time limit in British Columbia but \$500 assessment work, of which a survey may represent one-fifth, must be performed and recorded before a lease may be obtained. In Quebec a specified number of man-days of work must be performed and the excess may be carried forward for renewals of licence. Before mining can be commenced a mining concession must be purchased for which it is necessary to produce an engineer's report indicating the presence of an orebody. The taxation applied most frequently is a percentage of net profits of producing mines or royalties. In the Province of Newfoundland the provincial mining tax has been modified since Confederation on Mar. 31, 1949, to conform with the provincial obligations under the Dominion-Provincial Tax Agreement. No other form of taxation or royalty now exists.

Fuels.—In provinces where coal occurs the size of holdings is laid down, together with the conditions of work and rental under which they may be held. In Quebec, ordinary mining claims give rights to all mineral substances and to their development, and stakings for combustible natural gas, salt, coal, mineral oil or naphtha, or iron sands may cover 1,280 acres per claim. Royalties are sometimes provided for. Acts or regulations govern methods of production. In the search for petroleum and natural gas an exploration permit or reservation is usually required. However, in Alberta, Saskatchewan and British Columbia leases usually follow the exploration reservation whether or not any discovery of oil or gas is made because exploration costs are applicable in part on the first year's

* Compiled from material supplied by the provincial governments.

rental. In other provinces, except Manitoba, the discovery of oil or gas is usually prerequisite to obtaining a lease or grant of a limited area, subject to carrying out drilling obligations and paying a rental, a fee, or a royalty on production.

Quarrying.—Regulations under this heading define the size of holdings and the terms of lease or grant. On Quebec private lands the quarry belongs to the owner; on Crown lands mineral rights belong to the Crown and may be obtained in accordance with the provisions of the law although the rights to exploit peat or marl must be obtained by special licence.

Copies of mining legislation including regulations and other details may be obtained from the provincial authorities concerned.

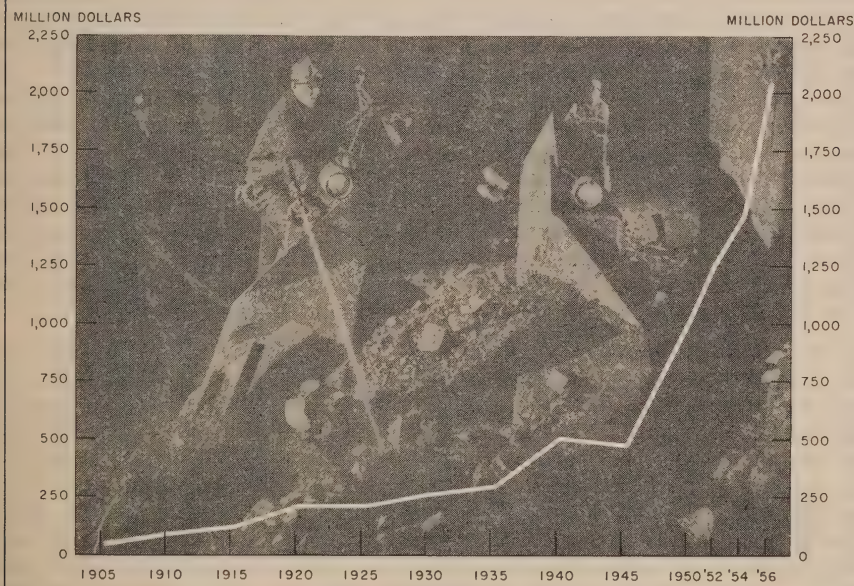
Section 4.—Statistics of Mineral Production

The importance of mineral production compared with other primary industries in Canada is indicated in Chapter XVII and its part in the foreign trade of Canada is dealt with in Chapter XXII.

Subsection 1.—Value and Volume of Mineral Production

Statistics of the annual value of mineral production are available from 1886, total production being shown for five-year intervals from that date to 1930 and annually for subsequent years in Table 1. These figures are not strictly comparable throughout the period because of minor changes in methods of computing metallic content of ores sold and valuations of products but they do serve to show broad trends in the mineral industry.

ANNUAL VALUE OF MINERAL PRODUCTION, CANADA 1905-56



The increase in the value of mineral production since the end of World War II has been phenomenal, having more than tripled since 1947. Production per head of the population advanced from \$51.38 in that year to \$128.58 in 1956. Although part of this increase is accounted for by advanced prices, the index of the volume of output from Canadian mines records an advance from 106.2 (1935-39=100) to 272.5 in the same comparison (see Table 4).

1.—Value of Mineral Production 1886-1956

| Year | Total Value | Value per Capita | Year | Total Value | Value per Capita | Year | Total Value | Value per Capita |
|-------------------------|-------------|------------------|-----------|-------------|------------------|-------------------------|---------------|------------------|
| | \$ | \$ | | \$ | \$ | | \$ | \$ |
| 1886..... | 10,221,255 | 2.23 | 1933..... | 221,495,253 | 20.83 | 1945..... | 498,755,181 | 41.32 |
| 1890..... | 16,763,353 | 3.51 | 1934..... | 278,161,590 | 25.90 | 1946..... | 502,816,251 | 40.91 |
| 1895..... | 20,505,917 | 4.08 | 1935..... | 312,344,457 | 28.80 | 1947..... | 644,869,975 | 51.38 |
| 1900..... | 64,420,877 | 12.15 | 1936..... | 361,919,372 | 33.05 | 1948..... | 820,248,865 | 63.97 |
| 1905..... | 69,078,999 | 11.51 | 1937..... | 457,359,092 | 41.41 | 1949 ² | 901,110,026 | 67.01 |
| 1910..... | 106,823,623 | 15.29 | 1938..... | 441,823,237 | 39.62 | 1950..... | 1,045,450,073 | 76.24 |
| 1915..... | 137,109,171 | 17.18 | 1939..... | 474,602,059 | 42.12 | 1951..... | 1,245,483,595 | 88.33 |
| 1920..... | 227,859,665 | 26.63 | 1940..... | 529,825,035 | 46.55 | 1952..... | 1,285,342,353 | 89.07 |
| 1925..... | 226,583,333 | 24.38 | 1941..... | 560,241,290 | 48.69 | 1953..... | 1,336,303,503 | 90.40 |
| 1930..... | 279,873,578 | 27.42 | 1942..... | 566,768,672 | 48.63 | 1954..... | 1,488,382,091 | 96.59 |
| 1931 ¹ | 230,434,726 | 22.21 | 1943..... | 530,053,966 | 44.94 | 1955..... | 1,795,310,796 | 114.37 |
| 1932..... | 191,228,225 | 18.19 | 1944..... | 485,819,114 | 40.67 | 1956..... | 2,067,699,096 | 128.58 |

¹ Beginning with 1931, exchange equalization on gold production is included.

² Value of Newfoundland production included from 1949.

Current Production.—Continuation of the remarkable expansion in the crude petroleum and iron ore industries, a substantial gain in copper production and smaller gains for most of the other minerals followed the 1956 value of mineral production in Canada above the two billion dollar mark for the first time. The total of \$2,067,700,000 was 15.2 p.c. higher than the 1955 value of output and almost double the figure for 1950. Crude petroleum was far in the lead in gross value of output at \$401,800,000, copper retained second place at \$291,500,000 and nickel was again in third place at \$223,300,000. Iron ore at \$156,300,000 displaced gold in fourth position, the latter dropping to fifth place at \$150,800,000. Next in the ten leading minerals was zinc at \$125,500,000, asbestos at \$109,700,000, coal at \$95,500,000, cement at \$77,900,000 and sand and gravel at \$72,600,000. The 1956 figures on uranium production do not reflect the full impact of the tremendous developments in uranium mining across the country. Four mills were in operation for the full year and two others came into production during the year. The value of \$39,600,000 represented shipments from the refinery at Port Hope, Ont.

The output for metals alone was \$1,134,400,000, up \$126,500,000 or 12.6 p.c. from the 1955 total. Only six of the 23 metals listed showed declines in quantity output compared with the previous year—antimony, gold, lead, magnesium, platinum, palladium and bismuth. Copper output reached a record of 353,000 tons, 8.4 p.c. more than in 1955 and 7.8 p.c. greater than the former high of 328,000 established in 1940. Nickel production was also the greatest on record at 178,000 tons, 1.8 p.c. above the 1955 output. The world supply of nickel, of which Canada's share amounts to about 65 p.c., has been unable to keep up with demands, and wide-spread exploration and development programs have been carried out by leading Canadian producers, an interest intensified by recent price advances. Shipments of iron ore increased 6,200,000 tons to an all-time high of 22,500,000, an advance which has probably raised Canada to fourth place among the iron ore

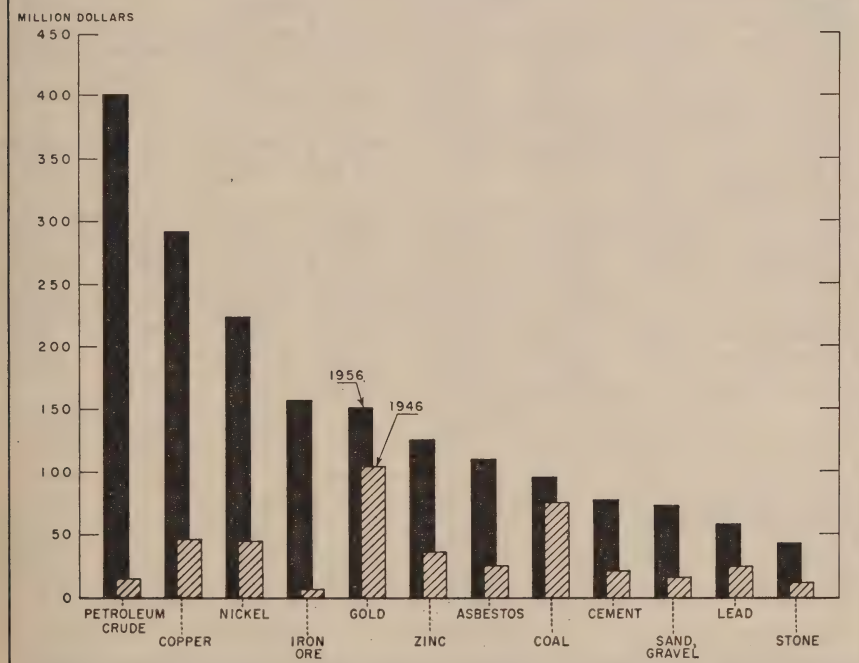
producing countries of the world. World demand for the principal non-ferrous base metals generally continued strong throughout the year and, with the exception of copper, prices held fairly steady.

The value of non-metallics increased 18.2 p.c. in 1956 to \$171,200,000. Of this total, \$109,700,000 was accounted for by asbestos. While the tonnage of that product was about 2.3 p.c. lower than in 1955, higher prices for certain grades resulted in an increase in value of 14.0 p.c. Most of the other non-metallics increased in value. Salt was up by 37.5 p.c., gypsum by 3.3 p.c. and recoveries of titanium dioxide slag by 30.4 p.c.

The value of mineral fuels was up 24.3 p.c. to \$514,800,000, with crude petroleum accounting for 78.1 p.c. of the total. Crude petroleum has been Canada's leading mineral product since 1953 and in 1956 accounted for almost one-fifth of the entire mineral production value of the country. A 69.7-p.c. increase in output in Saskatchewan, 42.0 p.c. in Manitoba and 27.7 p.c. in Alberta boosted Canada's production to a record total of 170,600,000 bbl. valued at \$401,800,000. The downward trend in coal production was checked in 1956 when tonnage increased slightly to 14,900,000 M cu. feet valued at \$95,500,000. Output of natural gas increased to a new high of 173,300,000 M cu. feet valued at \$17,500,000.

Demand for structural materials continued to expand and the value of output increased 8.3 p.c. in 1956 to \$247,300,000. Portland cement was up 18.6 p.c., clay products such as brick and tile 7.9 p.c. and sand and gravel about 7.2 p.c. The value of stone and lime was down slightly.

VALUE OF LEADING MINERALS PRODUCED IN CANADA,
1946 AND 1956



2.—Quantity and Value of Minerals Produced 1954-56

| Mineral | 1954 | | 1955 | | 1956 ^P | |
|---|-------------|----------------------|-------------|----------------------|-------------------|----------------------|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| | | \$ | | \$ | | \$ |
| Metallics..... | ... | 799,916,396 | ... | 1,007,839,501 | ... | 1,134,354,370 |
| Antimony..... lb. | 1,302,333 | 939,249 | 2,021,726 | 563,345 | 1,820,000 | 576,300 |
| Bismuth..... " | 258,675 | 572,183 | 265,896 | 572,362 | 273,007 | 494,157 |
| Cadmium..... " | 1,086,780 | 1,847,526 | 1,919,081 | 3,262,439 | 2,258,184 | 3,838,913 |
| Cerium..... " | ... | ... | ... | 988 | ... | ... |
| Cobalt..... " | 2,252,965 | 5,912,997 | 3,318,637 | 8,563,700 | 3,685,956 | 9,372,760 |
| Columbium (Cb ₂ O ₅)..... " | 90 | 2,294 | 42 | 1,032 | ... | ... |
| Copper..... " | 605,464,042 | 175,712,693 | 651,987,423 | 239,756,455 | 706,585,547 | 291,469,615 |
| Gold..... oz. t. | 4,366,440 | 148,764,611 | 4,541,962 | 156,788,528 | 4,378,862 | 150,808,010 |
| Indium..... " | 477 | 1,278 | 104,774 | 232,598 | 358,000 | 805,500 |
| Iron ore..... ton | 7,361,598 | 49,666,507 | 16,283,177 | 110,435,850 | 22,526,311 | 156,327,885 |
| Iron ingots..... " | 90,562 | 2,910,663 | 115,955 | 4,831,845 | 157,000 | 6,339,000 |
| Lead..... lb. | 436,990,488 | 58,250,831 | 405,525,038 | 58,314,500 | 373,349,541 | 57,906,514 |
| Magnesium and calcium | ... | 4,101,642 | ... | 6,585,409 | ... | 5,617,826 |
| Manganese ore..... ton | ... | ... | ... | ... | ... | 1,900 |
| Mercury..... lb. | ... | ... | 75 | 250 | ... | ... |
| Molybdenite..... " | 752,417 | 457,912 | 1,389,177 | 823,954 | 1,452,028 | 967,461 |
| Nickel..... " | 322,537,961 | 180,173,392 | 349,856,997 | 215,866,007 | 355,986,460 | 223,343,992 |
| Palladium, rhodium, | ... | ... | ... | ... | ... | ... |
| iridium, etc..... oz. t. | 189,350 | 7,956,087 | 214,252 | 8,321,633 | 161,600 | 6,495,065 |
| Platinum..... " | 154,356 | 12,950,469 | 170,494 | 14,747,732 | 150,000 | 15,585,000 |
| Selenium..... lb. | 323,529 | 1,617,645 | 427,109 | 3,203,319 | 508,000 | 6,858,000 |
| Silver..... oz. t. | 31,117,949 | 25,907,870 | 27,984,204 | 24,676,472 | 28,794,573 | 25,831,612 |
| Tantalum (Ta ₂ O ₅)..... lb. | 77 | 2,696 | 390 | 9,760 | ... | ... |
| Tellurium..... " | 8,171 | 14,300 | 9,014 | 15,774 | 24,000 | 42,000 |
| Thallium..... " | ... | ... | 275 | 378 | ... | ... |
| Tin..... " | 333,788 | 263,359 | 492,781 | 408,030 | 611,000 | 521,550 |
| Titanium ore..... ton | 1,641 | 9,462 | 1,464 | 10,634 | 4,443 | 37,100 |
| Tungsten concentrates..... lb. | 2,170,633 | 5,795,781 | 1,942,770 | 5,508,437 | 2,206,662 | 6,060,992 |
| Uranium minerals..... " | ... | 26,467,574 | ... | 26,031,604 | ... | 39,577,000 |
| Zinc..... lb. | 752,982,353 | 90,207,285 | 866,714,038 | 118,306,466 | 847,239,825 | 125,476,218 |
| Non-metallics (excluding Fuels)..... | ... | 130,523,624 | ... | 144,920,841 | ... | 171,241,069 |
| Arsenious oxide..... lb. | 1,180,350 | 48,333 | 1,571,787 | 69,159 | 2,624,757 | 86,617 |
| Asbestos..... ton | 924,116 | 86,409,212 | 1,063,802 | 96,191,317 | 1,038,975 | 109,665,924 |
| Barite..... " | 221,472 | 2,003,796 | 253,736 | 2,277,166 | 307,808 | 2,509,199 |
| Diatomite..... " | 4 | 192 | 16 | 352 | ... | ... |
| Feldspar..... " | 16,096 | 301,049 | 18,162 | 355,879 | 17,763 | 365,370 |
| Fluorspar..... " | 118,969 | 2,987,026 | 128,114 | 2,708,437 | 151,738 | 3,835,565 |
| Graphite..... " | 2,463 | 254,534 | ... | ... | ... | ... |
| Grindstone..... " | ... | ... | 10 | 1,500 | ... | ... |
| Gypsum..... " | 3,950,422 | 7,094,671 | 4,667,901 | 8,037,153 | 5,192,805 | 8,300,585 |
| Iron oxide..... " | 5,798 | 183,507 | 7,702 | 162,512 | 7,757 | 170,135 |
| Lithia..... lb. | 17,052 | 6,300 | 114,376 | 61,752 | 4,800,000 | 2,640,000 |
| Magnetitic dolomite, | ... | 4,394,280 | ... | 2,151,820 | ... | 2,412,000 |
| brucite..... " | ... | ... | ... | ... | ... | ... |
| Mica..... lb. | 1,706,770 | 85,139 | 1,640,708 | 77,541 | 1,184,542 | 73,622 |
| Mineral water..... imp. gal. | 284,078 | 148,057 | 306,683 | 160,510 | 303,500 | 157,000 |
| Nepheline syenite..... ton | 123,669 | 1,770,528 | 146,068 | 2,099,512 | 179,381 | 2,489,633 |
| Peat moss..... " | 99,272 | 3,018,622 | 117,579 | 3,485,287 | 125,074 | 3,708,191 |
| Quartz..... " | 1,716,151 | 1,574,893 | 1,869,913 | 2,039,575 | 2,114,415 | 2,781,236 |
| Salt..... " | 969,887 | 8,340,163 | 1,244,761 | 10,122,299 | 1,593,131 | 13,916,532 |
| Silica brick..... M | 3,578 | 465,157 | 4,763 | 602,625 | 5,576 | 705,077 |
| Soapstone and talc..... ton | 28,143 | 335,353 | 27,160 | 338,967 | 29,030 | 358,750 |
| Sodium sulphate..... " | 158,417 | 2,385,573 | 178,888 | 2,799,715 | 179,433 | 2,854,223 |
| Sulphur ¹ " | 532,406 | 4,875,969 | 628,443 | 5,984,953 | 763,736 | 7,440,410 |
| Titanium dioxide..... " | 88,408 | 3,841,270 | 117,042 | 5,192,810 | 152,500 | 6,771,000 |
| Fuels..... | ... | 352,959,465 | ... | 414,318,015 | ... | 514,850,071 |
| Coal..... ton | 14,913,579 | 96,600,266 | 14,818,880 | 93,579,471 | 14,915,033 | 95,466,866 |
| Natural gas..... M cu. ft. | 120,735,214 | 12,482,109 | 150,772,312 | 15,098,508 | 173,260,500 | 17,542,555 |
| Peat..... " | 6 | 60 | ... | ... | ... | ... |
| Petroleum, crude..... bbl. | 96,080,345 | 243,877,030 | 129,440,247 | 305,640,036 | 170,569,200 | 401,840,650 |
| Structural Materials..... | ... | 204,982,696 | ... | 228,232,439 | ... | 247,253,586 |
| Clay products, brick, | ... | ... | ... | ... | ... | ... |
| tile, etc..... " | ... | 32,360,098 | ... | 35,259,770 | ... | 38,062,112 |
| Cement..... bbl. | 22,437,477 | 59,035,644 | 25,168,464 | 65,650,025 | 29,719,377 | 77,876,046 |
| Lime..... ton | 1,214,839 | 14,742,149 | 1,331,118 | 15,810,904 | 1,303,889 | 15,328,917 |
| Sand and gravel..... " | 110,961,034 | 58,987,671 | 127,524,474 | 67,775,053 | 128,995,782 | 72,637,049 |
| Stone..... " | 32,767,925 | 39,857,134 | 30,512,920 | 43,736,687 | 31,549,706 | 43,349,462 |
| Grand Totals..... | ... | 1,488,382,091 | ... | 1,795,310,796 | ... | 2,067,699,096 |

¹ Sulphur content of pyrite shipped and estimated sulphur contained in the sulphuric acid made from smelter gases.

Analysis of Current Value and Volume.—To assist in clearer and simpler interpretation of the trends in mineral production in Canada over the ten years 1947-56, the percentage of the total value contributed by each principal mineral in each year is given in Table 3. Values upon which percentages in this table are based are the annual values of mineral production, expressed in Canadian currency, as shown in Tables 1 and 2.

3.—Percentage of the Total Value Contributed by Principal Minerals 1947-56

| Mineral | 1947 | 1948 | 1949 | 1950 | 1951 | 1952 | 1953 | 1954 | 1955 | 1956 |
|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. |
| Metallics¹ | 61.3 | 59.6 | 59.8 | 59.0 | 59.9 | 56.7 | 53.1 | 53.7 | 56.1 | 54.9 |
| Copper..... | 14.2 | 13.1 | 11.6 | 11.8 | 11.9 | 11.4 | 11.3 | 11.8 | 13.4 | 14.1 |
| Gold..... | 16.7 | 15.1 | 16.5 | 16.2 | 13.0 | 11.9 | 10.4 | 10.0 | 8.7 | 7.3 |
| Iron ore..... | 2.3 | 1.5 | 3.9 | 3.8 | 4.2 | 4.6 | 6.2 | 6.2 | 6.2 | 7.6 |
| Lead..... | 6.9 | 7.3 | 5.6 | 4.6 | 4.7 | 4.3 | 3.7 | 3.9 | 3.2 | 2.8 |
| Nickel..... | 11.0 | 10.6 | 11.0 | 10.7 | 12.1 | 11.8 | 12.0 | 12.1 | 12.0 | 10.8 |
| Platinum metals..... | .5 | 2.0 | 2.2 | 1.7 | 1.8 | 1.4 | 1.5 | 1.4 | 1.3 | 1.1 |
| Silver..... | 1.4 | 1.5 | 1.5 | 1.8 | 1.8 | 1.6 | 1.8 | 1.7 | 1.4 | 1.2 |
| Zinc..... | 7.2 | 8.0 | 8.5 | 9.4 | 10.9 | 10.1 | 7.2 | 6.1 | 6.6 | 6.1 |
| Non-metallics¹ (excluding Fuels) | 8.5 | 8.2 | 7.1 | 9.0 | 9.3 | 9.7 | 9.4 | 8.8 | 8.1 | 8.3 |
| Asbestos..... | 5.1 | 5.1 | 4.4 | 6.3 | 6.5 | 6.9 | 6.4 | 5.8 | 5.4 | 5.3 |
| Gypsum..... | 0.7 | 0.7 | 0.6 | 0.6 | 0.5 | 0.5 | 0.6 | 0.5 | 0.4 | 0.4 |
| Quartz..... | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 |
| Salt..... | 0.7 | 0.6 | 0.6 | 0.7 | 0.6 | 0.6 | 0.5 | 0.6 | 0.6 | 0.7 |
| Sulphur..... | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.2 | 0.3 | 0.3 | 0.4 |
| Fuels | 17.1 | 19.5 | 20.4 | 19.2 | 18.7 | 20.4 | 23.5 | 23.7 | 23.1 | 24.9 |
| Coal..... | 12.0 | 13.0 | 12.3 | 10.5 | 8.7 | 8.6 | 7.7 | 6.5 | 5.2 | 4.6 |
| Natural gas..... | 2.1 | 1.9 | 1.3 | 0.6 | 0.6 | 0.7 | 0.8 | 0.8 | 0.9 | 0.9 |
| Petroleum..... | 3.0 | 4.6 | 6.8 | 8.1 | 9.4 | 11.1 | 15.0 | 16.4 | 17.0 | 19.4 |
| Structural Materials | 13.1 | 12.7 | 12.7 | 12.7 | 12.1 | 13.1 | 14.0 | 13.8 | 12.7 | 11.9 |
| Clay products..... | 2.2 | 2.1 | 2.0 | 2.1 | 1.9 | 1.9 | 2.2 | 2.2 | 2.0 | 1.8 |
| Cement..... | 3.4 | 3.4 | 3.6 | 3.4 | 3.2 | 3.7 | 4.4 | 4.0 | 3.6 | 3.8 |
| Lime..... | 1.3 | 1.3 | 1.3 | 1.2 | 1.1 | 1.1 | 1.1 | 1.0 | 0.9 | 0.7 |
| Sand and gravel..... | 3.6 | 3.7 | 3.5 | 3.5 | 3.6 | 4.0 | 4.0 | 4.0 | 3.8 | 3.5 |
| Stone..... | 2.6 | 2.2 | 2.3 | 2.5 | 2.3 | 2.4 | 2.3 | 2.6 | 2.4 | 2.1 |
| Grand Totals | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

¹ Includes minor items not specified.

The total volume of mineral output attained a wartime peak in 1941 when the production index* stood at 132. Principally because of the steady recession in the mining of gold and other major metals during the next five years, the index gradually declined and reached a ten-year low point of 97 in 1946. Since then, sharp gains in the production of petroleum and other non-metals together with substantial increases in metals output resulted in a sustained advance to a record high level of 272.5 in 1956.

* The construction of this index, which is a component of the revised index of industrial production, is described in DBS Reference Paper, *Revised Index of Industrial Production, 1935-51*.

4.—Indexes of the Volume of Production of the Principal Mining Industries 1947-56

(1935-39=100)

NOTE.—Comparable figures from 1935 are given in the 1954 Year Book, p. 523.

| Mineral | 1947 | 1948 | 1949 | 1950 | 1951 | 1952 | 1953 | 1954 | 1955 | 1956 |
|----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Metallies | 88.7 | 99.4 | 107.7 | 111.0 | 113.5 | 116.5 | 114.1 | 124.8 | 138.0 | 142.3 |
| Gold..... | 73.3 | 84.3 | 98.3 | 105.8 | 104.0 | 106.5 | 97.0 | 103.9 | 108.2 | 104.7 |
| Silver..... | 60.5 | 77.9 | 81.2 | 104.8 | 102.7 | 113.3 | 126.7 | 138.8 | 124.3 | 125.1 |
| Copper..... | 88.5 | 94.5 | 99.0 | 93.4 | 95.1 | 91.2 | 89.6 | 106.9 | 115.3 | 125.8 |
| Nickel..... | 122.2 | 135.9 | 132.8 | 127.7 | 141.2 | 144.2 | 147.4 | 163.4 | 180.6 | 184.4 |
| Lead..... | 83.3 | 86.1 | 67.7 | 64.6 | 61.6 | 65.1 | 76.3 | 85.6 | 78.6 | 73.5 |
| Zinc..... | 115.5 | 130.1 | 141.5 | 145.9 | 153.0 | 170.6 | 186.4 | 173.8 | 199.5 | 195.4 |
| Non-metallies | 189.2 | 204.3 | 175.4 | 247.2 | 271.9 | 267.3 | 258.1 | 264.3 | 304.4 | 316.3 |
| Gypsum..... | 280.0 | 349.3 | 346.4 | 403.6 | 371.4 | 370.3 | 393.8 | 405.5 | 476.4 | 506.0 |
| Asbestos..... | 163.1 | 176.9 | 141.8 | 218.5 | 245.3 | 245.2 | 232.3 | 235.9 | 268.0 | 271.4 |
| Salt..... | 178.9 | 177.7 | 181.2 | 207.2 | 233.1 | 234.6 | 231.2 | 232.2 | 310.0 | 385.9 |
| Fuels | 112.8 | 142.7 | 173.7 | 198.0 | 258.8 | 301.5 | 351.5 | 397.0 | 506.2 | 646.1 |
| Coal..... | 101.7 | 120.6 | 124.4 | 122.9 | 119.4 | 112.9 | 101.8 | 94.2 | 93.3 | 93.3 |
| Petroleum..... | 186.0 | 297.0 | 515.0 | 703.4 | 1,161.0 | 1,490.6 | 1,966.5 | 2,337.5 | 3,143.7 | 4,189.1 |
| Natural gas..... | 102.6 | 112.7 | 110.6 | 116.9 | 150.8 | 188.3 | 157.5 | 180.4 | 220.4 | 249.0 |
| Total Mining | 106.2 | 122.2 | 131.7 | 145.4 | 161.8 | 174.7 | 185.8 | 209.7 | 242.0 | 272.5 |

Subsection 2.—Provincial Distribution of Mineral Production

The continued rise in mineral production in 1956 was shared by all provinces except Nova Scotia where values dropped 0.8 p.c. The Yukon Territory also increased its output but the Northwest Territories reported a decline of 10.3 p.c.

Ontario again led the provinces, producing 31.0 p.c. by value of the mineral output of Canada. Although Ontario's physical production is rising rapidly, the percentage contribution of this Province to the Canadian total is slowly declining, having been 49.4 in 1940 and 35.1 in 1950. Ontario's advance of 9.8 p.c. in 1956 over 1955 resulted mainly from increases in nickel, copper and iron ore. Quebec retained second place, its share of the Canadian total being 20.6 p.c. as compared with 19.9 in 1955 and 21.1 in 1950. Quebec's increase in value of output in 1956 was 19.5 p.c., the highest gains being in copper, iron ore and asbestos. Alberta followed Quebec closely, contributing 19.8 p.c. of the nation's total in 1956, most of it made up of petroleum and natural gas. The increase in the Province in 1956 was 25.4 p.c.

British Columbia, with 9.6 p.c. of Canada's value of mineral production in 1956, contributed 77.7 p.c. of the lead, 52.4 p.c. of the zinc and 32.4 p.c. of the silver. Saskatchewan reported an increase in mineral production of 34.0 p.c. in 1956 and advanced its share of the Canadian total to 5.5 p.c. from 4.7 p.c. in the previous year. Newfoundland with a production doubled in value since 1954, also increased its portion of the Canadian total to 4.2 p.c. in 1956 from 3.8 p.c. in 1955, mostly as a result of heavier iron ore shipments. Manitoba and Nova Scotia each contributed 3.2 p.c. of the total in 1956. The decline in the latter province was caused by lower production of copper, lead and zinc. New Brunswick's contribution, though the lowest among the provinces, showed an encouraging increase of 15.3 p.c. in 1956.

6.—Value of Mineral Production by Province 1947-56

NOTE.—Figures for 1899-1910 are given in the 1933 Year Book, p. 345; for 1911-28 in the 1939 edition, p. 323; for 1929-44 in the 1946 edition, p. 323; and for 1945 and 1946 in the 1956 edition, p. 527.

| Year | Newfoundland | Nova Scotia | New Brunswick | Quebec | Ontario | Manitoba |
|-----------|--------------|-------------|------------------|-----------------------|-----------------|---------------|
| | \$ | \$ | \$ | \$ | \$ | \$ |
| 1947..... | ... | 34,255,560 | 5,812,943 | 115,151,635 | 249,797,671 | 18,236,763 |
| 1948..... | ... | 56,400,245 | 7,003,285 | 152,038,867 | 294,239,673 | 26,081,349 |
| 1949..... | 27,583,615 | 56,092,830 | 7,134,009 | 165,021,513 | 323,368,644 | 23,839,638 |
| 1950..... | 25,824,047 | 59,482,173 | 12,756,975 | 220,176,517 | 366,801,525 | 32,691,173 |
| 1951..... | 32,410,443 | 59,727,256 | 9,564,617 | 255,530,071 | 444,667,203 | 30,045,992 |
| 1952..... | 32,512,313 | 64,552,383 | 11,298,960 | 270,483,962 | 444,669,412 | 25,105,045 |
| 1953..... | 33,780,622 | 67,364,408 | 11,663,618 | 251,881,781 | 465,877,093 | 25,264,112 |
| 1954..... | 42,898,033 | 73,450,898 | 12,468,322 | 278,818,070 | 496,747,571 | 35,108,922 |
| 1955..... | 68,462,956 | 67,133,539 | 15,759,744 | 357,010,045 | 583,954,682 | 62,018,231 |
| 1956..... | 87,752,025 | 66,625,229 | 18,171,654 | 426,608,242 | 640,915,058 | 66,711,747 |
| | Saskatchewan | Alberta | British Columbia | Northwest Territories | Yukon Territory | Canada |
| | \$ | \$ | \$ | \$ | \$ | \$ |
| 1947..... | 32,594,016 | 67,432,270 | 116,772,621 | 2,720,988 | 2,095,508 | 644,869,975 |
| 1948..... | 34,517,208 | 93,211,229 | 148,223,614 | 4,267,485 | 4,265,910 | 820,248,865 |
| 1949..... | 36,054,536 | 113,728,425 | 136,385,911 | 6,801,729 | 5,099,176 | 901,110,026 |
| 1950..... | 35,983,923 | 135,758,940 | 138,888,205 | 8,050,899 | 9,035,696 | 1,045,450,073 |
| 1951..... | 51,032,953 | 168,144,211 | 176,278,932 | 8,288,747 | 9,793,170 | 1,245,483,595 |
| 1952..... | 49,506,094 | 196,811,654 | 170,071,244 | 8,944,835 | 11,386,451 | 1,285,342,353 |
| 1953..... | 48,081,970 | 248,863,295 | 158,487,812 | 10,300,230 | 14,738,562 | 1,336,303,503 |
| 1954..... | 68,216,009 | 279,042,735 | 158,630,867 | 26,414,000 | 16,588,664 | 1,488,382,091 |
| 1955..... | 85,150,128 | 325,974,326 | 189,524,574 | 25,597,821 | 14,724,750 | 1,795,310,796 |
| 1956..... | 114,103,316 | 408,865,422 | 199,318,374 | 22,949,122 | 15,678,907 | 2,067,699,096 |

Subsection 3.—Production of Metallic Minerals

The metallic minerals of greatest dollar value produced in Canada during 1956 were: copper, nickel, iron, gold, zinc, lead, uranium, and silver. The most striking and important advance was recorded by uranium which became the seventh most valuable mineral produced in 1956, although the vast developments in this field were only then beginning to be reflected in production figures. The major metals, including uranium, are dealt with in the following paragraphs.

Copper.—Production in 1956 reached a record of 353,000 tons—8.4 p.c. over 1955 and higher than the former record of 328,000 tons established in 1940. The total value of \$291,500,000 was an increase of 21.6 p.c. in the year despite a softening in world copper prices, making copper Canada's most important metal in point of value.

Ontario led production with 43.8 p.c. of the Canadian total, and Quebec production rose 21.2 p.c. to 122,000 tons and accounted for 34.7 p.c. of the nation's total. Newfoundland increased production 11.5 p.c. to 3,400 tons and Saskatchewan showed a modest gain, but output in Manitoba and British Columbia declined slightly and in Nova Scotia ceased altogether.

7.—Copper Production by Province and Total Value 1947-56

NOTE.—Figures for 1886-1910 are given in the 1916-17 Year Book, p. 272; for 1911-28 in the 1939 edition, p. 335; for 1929-44 in the 1946 edition, p. 331; and for 1945 and 1946 in the 1956 edition, p. 532.

| Year | Newfoundland | Quebec | Ontario | Manitoba | Saskatchewan | British Columbia | Canada | |
|-----------|--------------|--------|---------|----------|--------------|------------------|----------|-------------|
| | | | | | | | Quantity | Value |
| | tons | tons | tons | tons | tons | tons | tons | \$ |
| 1947..... | ... | 42,561 | 113,934 | 15,316 | 33,151 | 20,900 | 225,862 | 91,541,888 |
| 1948..... | ... | 48,813 | 120,383 | 18,960 | 31,074 | 21,502 | 240,732 | 107,159,756 |
| 1949..... | 3,617 | 67,822 | 113,042 | 16,960 | 34,960 | 27,055 | 263,456 | 104,719,151 |

7.—Copper Production by Province and Total Value 1947-56—concluded

| Year | New-foundland | Quebec | Ontario | Manitoba | Saskatchewan | British Columbia | Canada | |
|-----------|---------------|---------|---------|----------|--------------|------------------|----------------------|--------------------------|
| | | | | | | | Quantity | Value |
| | tons | tons | tons | tons | tons | tons | tons | \$ |
| 1950..... | 3,221 | 72,891 | 117,210 | 20,817 | 28,982 | 21,086 | 264,207 | 123,211,407 |
| 1951..... | 2,899 | 68,866 | 128,808 | 15,839 | 31,625 | 21,932 | 269,970 ¹ | 149,026,216 ¹ |
| 1952..... | 2,959 | 68,846 | 125,343 | 9,374 | 30,344 | 20,786 | 258,038 ² | 146,679,040 ² |
| 1953..... | 2,814 | 54,920 | 130,582 | 9,411 | 30,588 | 24,148 | 253,252 ³ | 150,953,742 ³ |
| 1954..... | 3,481 | 83,930 | 140,776 | 12,274 | 36,192 | 25,088 | 302,732 ⁴ | 175,712,693 ⁴ |
| 1955..... | 3,052 | 101,020 | 146,407 | 19,380 | 32,945 | 22,127 | 325,994 ⁵ | 239,756,455 ⁵ |
| 1956..... | 3,403 | 122,459 | 154,599 | 17,904 | 33,310 | 21,245 | 353,293 ⁶ | 291,469,615 ⁶ |

¹ Includes one ton valued at \$536 produced in N.W.T. Nova Scotia and 3 tons valued at \$1,969 produced in N.W.T.

² Includes 383 tons valued at \$218,663 produced in Nova Scotia and 3 tons valued at \$471,962 produced in Nova Scotia.

³ Includes 788 tons valued at \$471,962 produced in Nova Scotia. ⁴ Includes 991 tons valued at \$577,868 produced in Nova Scotia. ⁵ Includes 1,028 tons valued at \$757,758 produced in Nova Scotia and 35 tons valued at \$26,290 produced in New Brunswick. ⁶ Includes 357 tons valued at \$295,846 produced in Nova Scotia and 16 tons valued at \$12,896 produced in New Brunswick.

Nickel.—The output of nickel in 1956 was 3,000 tons higher than in 1955, reaching a total of 178,000 tons worth \$223,300,000.

Canada produced about 65 p.c. of the free world supply of nickel during 1956 mainly from smelters of the International Nickel Company of Canada and Falconbridge Mines Limited both of which are in the Sudbury, Ont., area. The Sherritt Gordon mine at Lynn Lake, Man., is the third largest Canadian producer of ore which is refined at Fort Saskatchewan, Alta. Two smaller mines near Sudbury—Nickel Rim and Nickel Offsets—ship nickel ore to Falconbridge Mines for treatment.

Canada uses only about 3,500 tons of refined nickel annually. Exports amounted to about 104,000 tons in 1956, mostly to the United States, and exports of nickel in matte, etc., amounted to 70,715 tons.

8.—Quantity and Value of Nickel Produced 1947-56

NOTE.—Figures for 1889-1910 are given in the 1929 Year Book, p. 368; for 1911-28 in the 1939 edition, p. 342; for 1929-44 in the 1946 edition, p. 333; and for 1945 and 1946 in the 1956 edition, p. 532.

| Year | Quantity | Value | Year | Quantity | Value |
|-----------|----------|-------------|-----------|----------|-------------|
| | tons | \$ | | tons | \$ |
| 1947..... | 118,626 | 70,650,764 | 1952..... | 140,559 | 151,349,438 |
| 1948..... | 131,740 | 86,904,235 | 1953..... | 143,643 | 160,430,098 |
| 1949..... | 128,690 | 99,173,289 | 1954..... | 166,299 | 180,173,392 |
| 1950..... | 123,659 | 112,104,685 | 1955..... | 174,928 | 215,866,007 |
| 1951..... | 137,903 | 151,269,994 | 1956..... | 177,993 | 223,343,992 |

Iron Ore.—A 42-p.c. increase in the value of shipments raised iron ore to third place among the metals of Canada, exceeding gold and zinc for the first time. Production of 22,526,000 tons of ore valued at \$156,300,000 reflected gains by all producing provinces except British Columbia where output dropped sharply.

Seven companies shipped ore or concentrates in 1956. The Iron Ore Company of Canada with mines in Quebec and Labrador produced high-grade, direct-shipping ore, mostly for the United States; Dominion Wabana Ore Limited, Bell Island, Nfld., shipped

heavy-media concentrates to the steel plant at Sydney, N.S., and for export; Steep Rock Iron Mines Limited in northern Ontario produced high-grade direct-shipping ore mainly for export to the United States. Algoma Ore Properties Limited also in northern Ontario produced high-grade sinter. In British Columbia, Texada Mines Limited on Texada Island and the Argonaut Mine on Vancouver Island produced a reduced tonnage of magnetite concentrates mainly for export to Japan.

Exports of iron ore in 1956 totalled over 20,000,000 tons valued at \$144,000,000. Of this total, 79 p.c. went to the United States and almost all of the remainder to Europe—mostly to the United Kingdom.

9.—Iron Ore Shipments and Production of Pig-Iron, Ferro-Alloys and Steel Ingots and Castings 1947-56

NOTE.—Figures for 1886-1910 are given in the 1936 Year Book, p. 373; for 1911-28 in the 1939 edition, p. 340; for 1929-44 in the 1946 edition, p. 333; and for 1945 and 1946 in the 1956 edition, p. 535.

| Year | Iron Ore Shipments from Canadian Mines | Production of Pig-Iron | | | Production of Ferro-Alloys ¹ | Production of Steel Ingots and Castings |
|-----------|--|------------------------|-----------|------------------------|---|---|
| | | Nova Scotia | Ontario | Canada | | |
| | tons | tons | tons | tons | tons | tons |
| 1947..... | 1,919,366 | 354,789 | 1,606,787 | 1,962,848 ² | 227,123 | 2,945,952 |
| 1948..... | 1,337,244 | 438,430 | 1,687,309 | 2,125,739 | 232,734 | 3,200,480 |
| 1949..... | 3,675,096 | 472,885 | 1,681,600 | 2,154,485 | 202,092 | 3,190,477 |
| 1950..... | 3,605,261 | 513,029 | 1,804,092 | 2,317,121 | 180,499 | 3,383,575 |
| 1951..... | 4,680,510 | 485,090 | 2,066,993 | 2,552,893 | 266,252 | 3,568,720 |
| 1952..... | 5,271,849 | 395,262 | 2,286,323 | 2,681,585 | 232,117 | 3,703,111 |
| 1953..... | 6,509,818 | 440,005 | 2,572,263 | 3,012,268 | 153,660 | 4,116,068 |
| 1954..... | 7,361,598 | 314,297 | 1,896,732 | 2,211,029 | 116,141 | 3,195,030 |
| 1955..... | 16,283,177 | 402,759 | 2,812,608 | 3,215,367 | 189,805 | 4,534,672 |
| 1956..... | 22,526,311 | 466,306 | 3,101,890 | 3,568,196 | 243,809 | 5,305,805 |

¹ Factory shipments since 1953.

² Includes production of 1,272 tons in British Columbia.

Gold.—Production of gold declined 3.6 p.c. in quantity and 3.8 p.c. in value in 1956 compared with 1955. Slight declines were recorded by all producing provinces except Newfoundland, and by the Yukon and Northwest Territories. The increase in production in the Northwest Territories was 9.7 p.c. Canada, despite the small decline in production, retained its position as the third largest producer in the world, accounting for about 13 p.c. of world output.

10.—Quantity and Value of Gold Produced by Province 1947-56

NOTE.—Values are calculated at world prices in Canadian funds. Figures for 1862-1910 are given in the 1916-17 Year Book, pp. 268-269; for 1911-28 in the 1939 edition, pp. 336-337; for 1929-44 in the 1946 edition, p. 332; and for 1945 and 1946 in the 1956 edition, p. 533.

| Year | Newfoundland | | Nova Scotia | | Quebec | | Ontario | |
|-----------|--------------|---------|-------------|---------|-----------|------------|-----------|------------|
| | Quantity | Value | Quantity | Value | Quantity | Value | Quantity | Value |
| | oz. t. | \$ | oz. t. | \$ | oz. t. | \$ | oz. t. | \$ |
| 1947..... | ... | ... | 1,271 | 44,485 | 598,127 | 20,934,445 | 1,944,819 | 68,068,665 |
| 1948..... | ... | ... | 188 | 6,580 | 770,625 | 26,971,875 | 2,095,377 | 73,338,195 |
| 1949..... | 9,269 | 333,684 | 64 | 2,304 | 964,184 | 34,710,624 | 2,354,509 | 84,762,324 |
| 1950..... | 9,254 | 352,115 | 65 | 2,473 | 1,094,645 | 41,651,242 | 2,481,110 | 94,406,236 |
| 1951..... | 8,515 | 313,778 | 17 | 626 | 1,067,306 | 39,330,226 | 2,462,979 | 90,760,776 |
| 1952..... | 8,595 | 294,551 | 1,433 | 49,109 | 1,113,204 | 38,149,501 | 2,513,691 | 86,144,190 |
| 1953..... | 7,654 | 263,451 | 3,248 | 111,796 | 1,021,698 | 35,166,845 | 2,182,437 | 75,119,481 |
| 1954..... | 6,528 | 222,409 | 3,754 | 127,899 | 1,098,570 | 37,428,280 | 2,361,385 | 80,452,387 |
| 1955..... | 6,337 | 218,753 | 3,880 | 133,938 | 1,154,522 | 39,854,099 | 2,523,040 | 87,095,340 |
| 1956..... | 8,400 | 289,296 | 1,036 | 35,680 | 1,032,252 | 35,550,759 | 2,498,072 | 86,033,601 |

10.—Quantity and Value of Gold Produced by Province 1947-56—concluded

| Year | Manitoba | | Saskatchewan | | Alberta | | British Columbia | |
|-----------|-----------------------|------------|-----------------|-----------|-----------|-------------|------------------|------------|
| | Quantity | Value | Quantity | Value | Quantity | Value | Quantity | Value |
| | oz. t. | \$ | oz. t. | \$ | oz. t. | \$ | oz. t. | \$ |
| 1947..... | 72,906 | 2,551,710 | 93,747 | 3,281,145 | 78 | 2,730 | 249,011 | 8,715,385 |
| 1948..... | 106,176 | 3,716,160 | 87,927 | 3,077,445 | 78 | 2,730 | 306,998 | 10,744,930 |
| 1949..... | 137,399 | 4,946,364 | 94,208 | 3,391,488 | 115 | 4,140 | 304,307 | 10,955,052 |
| 1950..... | 191,725 | 7,295,136 | 79,784 | 3,035,781 | 152 | 5,784 | 290,490 | 11,053,144 |
| 1951..... | 163,914 | 6,040,231 | 110,216 | 4,061,460 | 97 | 3,574 | 289,992 | 10,686,205 |
| 1952..... | 141,947 | 4,864,524 | 93,585 | 3,207,158 | 111 | 3,804 | 273,059 | 9,357,732 |
| 1953..... | 131,309 | 4,519,656 | 88,327 | 3,040,215 | 65 | 2,237 | 264,976 | 9,120,474 |
| 1954..... | 134,944 | 4,597,542 | 101,785 | 3,467,815 | 195 | 6,644 | 268,508 | 9,148,068 |
| 1955..... | 123,888 | 4,276,614 | 83,580 | 2,885,182 | 214 | 7,387 | 252,979 | 8,732,835 |
| 1956..... | 119,350 | 4,110,414 | 82,800 | 2,851,632 | 119 | 4,098 | 210,948 | 7,265,050 |
| Year | Northwest Territories | | Yukon Territory | | Canada | | | |
| | Quantity | Value | Quantity | Value | Quantity | Value | | |
| | oz. t. | \$ | oz. t. | \$ | oz. t. | \$ | | |
| 1947..... | 62,517 | 2,188,095 | 47,745 | 1,671,075 | 3,070,221 | 107,457,735 | | |
| 1948..... | 101,625 | 3,556,875 | 60,614 | 2,121,490 | 3,529,608 | 123,536,280 | | |
| 1949..... | 177,493 | 6,389,748 | 81,970 | 2,950,920 | 4,123,518 | 148,446,648 | | |
| 1950..... | 200,663 | 7,635,227 | 93,339 | 3,551,549 | 4,441,227 | 168,988,687 | | |
| 1951..... | 212,211 | 7,819,975 | 77,504 | 2,856,022 | 4,392,751 | 161,872,873 | | |
| 1952..... | 247,581 | 8,484,601 | 78,519 | 2,690,846 | 4,471,725 | 153,246,016 | | |
| 1953..... | 289,929 | 9,979,356 | 66,080 | 2,274,474 | 4,055,723 | 139,597,985 | | |
| 1954..... | 308,563 | 10,512,741 | 82,208 | 2,800,826 | 4,366,440 | 148,764,611 | | |
| 1955..... | 321,321 | 11,092,001 | 72,201 | 2,492,379 | 4,541,962 | 156,788,528 | | |
| 1956..... | 352,645 | 12,145,094 | 73,240 | 2,522,386 | 4,378,862 | 150,808,010 | | |

Zinc.—In 1956, zinc production (including refined zinc, zinc ores and concentrates) fell 2.2 p.c. to 424,000 tons from the record high of 433,000 tons established in 1955. Of the 1956 total, 256,000 tons were refined zinc. Nearly all of the zinc concentrates produced in Eastern Canada—about 128,000 tons or 30.2 p.c. of the Canadian total—were exported. Total exports of zinc concentrates in 1956 amounted to 199,000 tons, and exports of refined zinc to 184,000 tons.

11.—Quantity and Value of Zinc Produced 1947-56

NOTE.—Figures for 1911-28 are given in the 1939 Year Book, p. 347; for 1929-44 in the 1946 edition, p. 335; and for 1945 and 1946 in the 1956 edition, p. 534.

| Year | Quantity ¹ | Value | Average Price per lb. | Year | Quantity ¹ | Value | Average Price per lb. |
|-----------|-----------------------|-------------|-----------------------|-----------|-----------------------|-------------|-----------------------|
| | tons | \$ | cts. | | tons | \$ | cts. |
| 1947..... | 207,863 | 46,686,010 | 11.23 | 1952..... | 371,802 | 129,833,285 | 17.46 |
| 1948..... | 234,164 | 65,237,956 | 13.93 | 1953..... | 401,762 | 96,101,386 | 11.96 |
| 1949..... | 288,264 | 76,372,147 | 13.25 | 1954..... | 376,491 | 90,207,285 | 11.98 |
| 1950..... | 313,227 | 98,040,145 | 15.65 | 1955..... | 433,357 | 118,306,466 | 13.65 |
| 1951..... | 341,112 | 135,762,643 | 19.90 | 1956..... | 423,620 | 125,476,218 | 14.84 |

¹ Estimated foreign smelter recoveries and refined zinc produced in Canada.

Lead.—Primary lead production dropped 7.9 p.c. in 1956 to 187,000 tons worth \$57,900,000; this followed a decline of 7.2 p.c. in 1955. Output of refined lead amounted to 148,000 tons with exports totalling 80,000 tons. Additional exports of lead in concentrates amounted to 50,000 tons.

British Columbia's mines produced 77.7 p.c. of Canada's lead in 1956. The Consolidated Mining and Smelting Company of Canada at Trail is by far the principal producer and operates the only lead refinery in Canada. Production in Newfoundland in 1956 was 23,000 tons, and in Yukon 13,000 tons; the remainder was mined mostly in Quebec and Ontario. Canada used about 66,000 tons domestically in 1956, a slight decrease from 1955.

12.—Quantity and Value of Lead Produced from Canadian Ores 1947-56

NOTE.—Figures for 1887-1910 are given in the 1929 Year Book, p. 367; for 1911-28 in the 1939 edition, p. 341; for 1929-44 in the 1946 edition, p. 333; and for 1945 and 1946 in the 1956 edition, p. 534.

| Year | Quantity | Value | Year | Quantity | Value |
|-----------|----------|------------|-----------|----------|------------|
| | tons | \$ | | tons | \$ |
| 1947..... | 161,668 | 44,200,124 | 1952..... | 168,842 | 54,671,021 |
| 1948..... | 167,251 | 60,344,146 | 1953..... | 193,706 | 50,076,822 |
| 1949..... | 159,775 | 50,488,879 | 1954..... | 218,495 | 58,250,831 |
| 1950..... | 165,697 | 47,886,452 | 1955..... | 202,762 | 58,314,500 |
| 1951..... | 158,231 | 58,229,146 | 1956..... | 186,675 | 57,906,514 |

Uranium.—Uranium production began in Canada in 1942 when this country joined with the United Kingdom and the United States to develop the atom bomb. The Port Radium mine of Eldorado Mining and Refining Limited supplied the initial production and from this modest beginning the uranium mining industry has grown to a total of six producers capable of processing in excess of 10,700 tons of ore per day. Current estimates indicate the operation of 22 mills with a production capacity of 42,000 tons of ore per day.

Uranium mineralization has been found at intervals along the western and southern edges of the Canadian Shield. Production, however, is from four areas within this belt: Great Bear Lake, N.W.T., Beaverlodge, Sask., Blind River, Ont., and Bancroft, Ont. All uranium production must be sold to the Canadian Government. In December 1956 official restrictions concerning uranium production and ore reserves were lifted. The production of uranium is shown for three years in Table 13, the figures representing the value of products shipped from the refinery at Port Hope, Ont.

13.—Value of Uranium by Province 1954-56

NOTE.—Figures represent value of products shipped from the refinery at Port Hope, Ont.

| Year | Ontario | Saskatchewan | Northwest Territories | Canada |
|-----------|-----------|--------------|-----------------------|------------|
| | \$ | \$ | \$ | \$ |
| 1954..... | — | 10,981,417 | 15,486,157 | 26,467,574 |
| 1955..... | 487,054 | 12,312,471 | 13,232,079 | 26,031,604 |
| 1956..... | 5,891,000 | 24,292,000 | 9,394,000 | 39,577,000 |

Silver.—Silver production in 1956 recorded a gain of 2.9 p.c. in quantity and of 4.7 p.c. in value compared with 1955 but was still below the record output of 1954. About 82 p.c. of the silver produced came from the refining of base metal ores, 15 p.c. from silver-cobalt and silver ores, and 3 p.c. from gold ores.

British Columbia produced 32.4 p.c. of the Canadian total, the Yukon 21.4 p.c., Ontario 22.5 p.c. and Quebec 14.4 p.c. Most of the production goes out of the country. Of the 14,300,000 oz. t. of silver bullion exported in 1956, over 13,000,000 oz. t. went to the United States. In addition, Canada exported 6,900,000 oz. t. of silver in ores and concentrates of which over 90 p.c. went to the United States.

Canada holds third place in world production, following Mexico and the United States.

14.—Quantity of Silver Produced by Province and Total Value 1947-56

NOTE.—Figures for 1887-1910 are given in the 1916-17 Year Book, p. 271; for 1911-28 in the 1939 edition, p. 345; for 1929-44 in the 1946 edition, p. 334; and for 1945 and 1946 in the 1956 edition, p. 535.

| Year | Average Price per oz. t. (Canadian funds) | Newfoundland | Nova Scotia | Quebec | Ontario | Manitoba |
|-----------|---|------------------|-----------------------|-----------------|---------------------|------------|
| | cts. | oz. t. | oz. t. | oz. t. | oz. t. | oz. t. |
| 1947..... | 72.00 | ... | 97 | 2,134,189 | 2,342,032 | 424,365 |
| 1948..... | 75.00 | ... | 8 | 2,376,754 | 3,210,107 | 737,298 |
| 1949..... | 74.25 | 585,966 | 3 | 3,250,578 | 2,562,859 | 554,266 |
| 1950..... | 80.82 | 575,524 | 2 | 4,343,379 | 4,408,620 | 893,099 |
| 1951..... | 94.55 | 534,519 | 1 | 4,154,290 | 4,520,094 | 613,141 |
| 1952..... | 83.52 | 638,524 | 91,886 | 4,536,247 | 6,491,124 | 412,149 |
| 1953..... | 84.01 | 648,389 | 226,225 | 4,571,373 | 5,154,619 | 429,508 |
| 1954..... | 83.26 | 742,120 | 262,361 | 4,907,304 | 5,443,721 | 411,125 |
| 1955..... | 88.18 | 701,792 | 262,067 | 4,786,695 | 6,051,017 | 454,528 |
| 1956..... | 89.68 | 919,410 | 79,054 | 4,135,831 | 6,478,777 | 432,830 |
| | Saskatchewan | British Columbia | Northwest Territories | Yukon Territory | Canada ¹ | |
| | oz. t. | oz. t. | oz. t. | oz. t. | oz. t. | \$ |
| 1947..... | 1,282,546 | 5,903,367 | 45,355 | 372,051 | 12,504,018 | 9,002,893 |
| 1948..... | 1,323,900 | 6,717,908 | 25,382 | 1,718,618 | 16,109,982 | 12,082,487 |
| 1949..... | 1,482,009 | 7,573,506 | 70,505 | 1,562,730 | 17,641,493 | 13,098,808 |
| 1950..... | 1,207,796 | 8,528,107 | 62,111 | 3,202,779 | 23,221,431 | 18,767,561 |
| 1951..... | 1,454,341 | 8,342,414 | 64,228 | 3,442,788 | 23,125,825 | 21,865,467 |
| 1952..... | 1,179,514 | 7,734,964 | 59,258 | 4,028,551 | 25,222,227 | 21,065,603 |
| 1953..... | 1,257,622 | 9,308,874 | 63,592 | 6,639,127 | 28,299,335 | 23,774,271 |
| 1954..... | 1,474,370 | 10,825,614 | 69,037 | 6,992,279 | 31,117,949 | 25,907,870 |
| 1955..... | 1,230,179 | 8,702,122 | 58,477 | 5,712,219 | 27,984,204 | 24,676,472 |
| 1956..... | 1,169,400 | 9,330,881 | 69,867 | 6,170,700 | 28,794,573 | 25,831,612 |

¹ Includes relatively small quantities produced in New Brunswick and Alberta.

Metals of the Platinum Group.—Total production of platinum, palladium, rhodium, ruthenium and iridium fell 73,000 oz. t. below 1955 production in 1956 to 312,000 oz. t. Total dollar value dropped very slightly to \$22,100,000 in 1956, of which platinum values were \$15,600,000. All of the platinoid metals were produced in Ontario, mainly from the nickel-copper ores in the Sudbury area.

These metals are recovered in the form of residues in the electrolytic refinery tanks at Port Colborne, Ont., and some at the refinery in Norway to which Falconbridge Nickel Company Limited ships nickel-copper matte.

15.—Quantity and Value of Platinum and Palladium¹ Produced 1947-56

NOTE.—Comparable figures for 1921-39 are given in the 1940 Year Book, p. 340 and for 1940-46 in the 1951 edition, p. 513.

| Year | Platinum | | Palladium ¹ | | Year | Platinum | | Palladium ¹ | |
|-----------|----------|------------|------------------------|-----------|----------|----------|------------|------------------------|-----------|
| | oz. t. | \$ | oz. t. | \$ | | oz. t. | \$ | oz. t. | \$ |
| 1947..... | 94,570 | 5,582,467 | 110,332 | 4,387,740 | 1952.... | 122,317 | 10,916,792 | 157,407 | 7,559,109 |
| 1948..... | 121,404 | 10,622,850 | 148,343 | 6,295,132 | 1953.... | 137,545 | 12,550,981 | 166,018 | 7,495,409 |
| 1949..... | 153,784 | 11,603,002 | 182,233 | 8,289,915 | 1954.... | 154,356 | 12,950,469 | 189,350 | 7,956,087 |
| 1950..... | 124,571 | 10,255,929 | 148,741 | 7,578,144 | 1955.... | 170,494 | 14,747,732 | 214,252 | 8,321,633 |
| 1951..... | 153,483 | 14,542,515 | 164,905 | 7,950,107 | 1956.... | 150,000 | 15,585,000 | 161,600 | 6,495,065 |

¹ Includes also iridium, rhodium, ruthenium.

Subsection 4.—Production of Non-metallic Minerals (excluding Fuels)

Asbestos is by far the most important item in this group in point of value, followed in order by salt, gypsum and sulphur, which are treated separately below. The group also includes such minerals as titanium dioxide, fluorspar, barite, diatomite, magnesitic dolomite, nepheline syenite, peat moss, quartz and sodium sulphate.

Asbestos.—Despite a 2.3 p.c. decline in shipments of asbestos in 1956 as compared with 1955, the Canadian asbestos industry had the second highest production in its history, shipping 1,039,000 tons of various grades of fibre. Higher prices brought the 1956 value to \$109,700,000, a gain of 14.0 p.c. over the 1955 total. The slight decline in tonnage resulted from decreased use of asbestos in the United States and from intensified competition from Russia in the European market.

Quebec, with eight producing mines, accounted for 95.3 p.c. of the Canadian total, Ontario had one producer which recorded an output of 28,000 tons in 1956 and another mine in British Columbia contributed 22,000 tons. Exports of 964,000 tons in 1956 went mostly to the United States.

16.—Quantity and Value of Asbestos Produced 1947-56

NOTE.—Figures for 1896-1910 are given in the 1911 Year Book, p. 424; for 1911-28 in the 1939 edition, p. 354; for 1929-44 in the 1946 edition, p. 353; and for 1945 and 1946 in the 1956 edition, p. 537.

| Year | Quantity | Value | Year | Quantity | Value |
|-----------|----------|------------|-----------|-----------|-------------|
| | tons | \$ | | tons | \$ |
| 1947..... | 661,821 | 33,005,748 | 1952..... | 929,339 | 89,254,913 |
| 1948..... | 716,769 | 42,231,475 | 1953..... | 911,226 | 86,052,895 |
| 1949..... | 574,906 | 39,746,072 | 1954..... | 924,116 | 86,409,212 |
| 1950..... | 875,344 | 65,854,568 | 1955..... | 1,063,802 | 96,191,317 |
| 1951..... | 973,198 | 81,584,345 | 1956..... | 1,038,975 | 109,665,924 |

Salt.—Production from the brine wells of Ontario increased 36.0 p.c. in 1956 over 1955 with increases in Manitoba and Saskatchewan. Alberta production equalled that of 1955 but dollar-value dropped from \$1,000,000 to \$900,000 in 1956. Salt produced in Nova Scotia mines dropped 17,000 tons during the year but value increased \$459,000. Total Canadian production in 1956 was 28.0 p.c. more than in 1955.

17.—Quantity of Salt Produced by Province and Total Value 1947-56

NOTE.—Figures for the years 1926-44 are given in the 1946 Year Book, p. 354, and for 1945 and 1946 in the 1956 edition, p. 538.

| Year | Nova Scotia | Ontario | Manitoba | Saskatchewan | Alberta | Canada | |
|-----------|-------------|-----------|----------|--------------|---------|-----------|------------|
| | tons | tons | tons | tons | tons | tons | \$ |
| 1947..... | 40,107 | 633,766 | 24,974 | — | 29,698 | 728,545 | 4,436,930 |
| 1948..... | 61,799 | 619,598 | 25,251 | — | 34,613 | 741,261 | 4,836,028 |
| 1949..... | 86,612 | 607,206 | 18,734 | 8,103 | 28,359 | 749,014 | 5,566,725 |
| 1950..... | 101,930 | 696,582 | 16,592 | 18,186 | 25,606 | 858,896 | 7,011,306 |
| 1951..... | 127,252 | 772,585 | 16,778 | 28,192 | 19,718 | 964,525 | 7,905,977 |
| 1952..... | 138,845 | 757,025 | 18,113 | 33,540 | 24,380 | 971,903 | 7,774,815 |
| 1953..... | 127,819 | 749,046 | 18,078 | 35,100 | 24,885 | 954,928 | 6,974,501 |
| 1954..... | 150,589 | 733,066 | 17,809 | 37,227 | 31,196 | 969,887 | 8,340,163 |
| 1955..... | 144,862 | 998,789 | 18,954 | 40,748 | 41,408 | 1,244,761 | 10,122,299 |
| 1956..... | 127,864 | 1,358,692 | 22,400 | 42,905 | 41,270 | 1,593,131 | 13,916,532 |

Gypsum.—A record total of 5,200,000 tons of gypsum was produced in 1956 valued at \$8,300,000. Exports of 3,800,000 tons nearly all went to the United States and were up 26.4 p.c. over 1955. Nova Scotia produced 85.4 p.c. of the total output.

18.—Quantity of Gypsum Produced by Province and Total Value 1947-56

NOTE.—Figures for 1926-43 are given in the 1943-44 Year Book, p. 321; for 1944 in the 1955 Year Book, p. 527; and for 1945 and 1946 in the 1956 edition, p. 538.

| Year | Nfld. | Nova Scotia | New Brunswick | Ontario | Manitoba | British Columbia | Canada | |
|-----------|--------|----------------|------------------|---------|----------|---------------------|-----------|-----------|
| | tons | tons | tons | tons | tons | tons | tons | \$ |
| 1947..... | — | 2,137,704 | 65,939 | 155,249 | 79,356 | 58,736 | 2,496,984 | 4,734,853 |
| 1948..... | — | 2,795,848 | 61,534 | 182,303 | 94,698 | 82,426 | 3,216,809 | 5,548,245 |
| 1949..... | — | 2,555,795 | 80,436 | 203,187 | 94,918 | 79,913 | 3,014,249 | 5,423,690 |
| 1950..... | — | 3,185,199 | 82,641 | 199,314 | 114,555 | 84,627 | 3,666,336 | 6,707,506 |
| 1951..... | — | 3,190,030 | 109,469 | 262,581 | 134,704 | 105,908 | 3,802,692 | 5,880,853 |
| 1952..... | 8,660 | 2,969,312 | 110,183 | 278,992 | 130,934 | 92,702 | 3,590,783 | 6,538,074 |
| 1953..... | 26,531 | 3,050,832 | 120,816 | 334,495 | 163,313 | 145,470 | 3,841,457 | 7,399,884 |
| 1954..... | 26,653 | 3,168,134 | 88,856 | 357,432 | 162,037 | 147,310 | 3,950,422 | 7,094,671 |
| 1955..... | 46,459 | 3,838,847 | 90,096 | 366,416 | 176,005 | 150,078 | 4,667,901 | 8,037,153 |
| 1956..... | 40,000 | 4,434,406 | 79,069 | 377,932 | 180,000 | 81,398 | 5,192,805 | 8,300,585 |

Sulphur.—Figures in Table 19 represent the quantity and value of sulphur contained in iron pyrite shipments and in derivatives from smelter gases such as sulphur dioxide, sulphuric acid, etc. Sulphur refined from natural gas production is not included.

During 1956 production increased 135,000 tons and value \$1,500,000. In Canada sulphur is used in the treatment of sulphite pulps and in the manufacture of rayon, explosives, rubber goods, petroleum refining, matches and insecticides.

19.—Quantity and Value of Sulphur Produced 1947-56

NOTE.—Figures for 1926-44 are given in the 1946 Year Book, p. 355 and for 1945 and 1946 in the 1956 edition, p. 539.

| Year | Quantity | Value | Year | Quantity | Value |
|-----------|----------|-----------|-----------|----------|-----------|
| | tons | \$ | | tons | \$ |
| 1947..... | 221,781 | 1,822,867 | 1952..... | 423,788 | 3,851,183 |
| 1948..... | 229,463 | 1,836,358 | 1953..... | 358,850 | 3,172,698 |
| 1949..... | 261,871 | 2,039,384 | 1954..... | 532,406 | 4,875,969 |
| 1950..... | 301,172 | 2,189,660 | 1955..... | 628,443 | 5,984,953 |
| 1951..... | 371,790 | 3,120,785 | 1956..... | 763,736 | 7,440,410 |

Subsection 5.—Production of Fuels

Coal.—During 1956 all coal-producing provinces except Alberta showed increased production, thus checking the downward trend that began in 1950.

Nova Scotia produced 38.8 p.c. of the total tonnage and Saskatchewan 15.4 p.c. Alberta's contribution declined to 29.2 p.c. Exports of Canadian coal remained approximately the same as for 1955 but imports increased by 14.5 p.c.

20.—Coal Production by Province 1947-56

NOTE.—Figures for 1874-1910 are given in the 1911 Year Book, p. 419; for 1911-28 in the 1939 edition, p. 348; for 1929-44 in the 1946 edition, p. 347; and for 1945 and 1946 in the 1956 edition, p. 539.

| Year | Nova Scotia | New Brunswick | Saskatchewan | Alberta | British Columbia | Yukon Territory | Canada | |
|-----------|-------------|---------------|--------------|-----------|------------------|-----------------|------------|-------------|
| | tons | tons | tons | tons | tons | tons | tons | \$ |
| 1947..... | 4,118,196 | 345,194 | 1,571,147 | 8,070,430 | 1,763,899 | — | 15,868,866 | 77,475,017 |
| 1948..... | 6,430,991 | 522,136 | 1,589,172 | 8,123,255 | 1,780,334 | 3,801 | 18,449,689 | 106,684,008 |
| 1949..... | 6,181,779 | 540,806 | 1,870,487 | 8,616,855 | 1,906,963 | 3,153 | 19,120,043 | 110,915,121 |
| 1950..... | 6,478,405 | 607,116 | 2,203,223 | 8,116,220 | 1,730,445 | 3,703 | 19,139,112 | 110,140,399 |
| 1951..... | 6,307,629 | 653,439 | 2,223,318 | 7,659,329 | 1,739,412 | 3,696 | 18,586,823 | 109,038,855 |
| 1952..... | 5,905,265 | 742,823 | 2,083,465 | 7,194,757 | 1,644,250 | 8,442 | 17,579,002 | 111,026,149 |
| 1953..... | 5,787,026 | 721,252 | 2,021,304 | 5,917,474 | 1,443,006 | 10,611 | 15,900,673 | 102,721,875 |
| 1954..... | 5,842,896 | 781,271 | 2,116,740 | 4,859,049 | 1,299,510 | 14,113 | 14,913,579 | 96,600,266 |
| 1955..... | 5,731,026 | 877,838 | 2,393,816 | 4,455,279 | 1,453,881 | 7,040 | 14,818,880 | 93,579,471 |
| 1956..... | 5,787,915 | 983,482 | 2,302,948 | 4,361,274 | 1,469,791 | 9,623 | 14,915,033 | 95,466,866 |

21.—Imports of Anthracite, Bituminous and Lignite Coal 1947-56

NOTE.—Figures for 1868-1910 are given in the 1911 Year Book, p. 420; for 1911-28 in the 1939 edition, p. 349; for 1929-44 in the 1946 edition, p. 348; and for 1945 and 1946 in the 1956 edition, p. 539.

| Year | Anthracite ¹ | | Bituminous ² | | Lignite | | Totals ³ | |
|-----------|-------------------------|------------|-------------------------|-------------|---------|--------|---------------------|-------------|
| | tons | \$ | tons | \$ | tons | \$ | tons | \$ |
| 1947..... | 4,281,682 | 41,012,759 | 24,610,045 | 97,935,771 | 203 | 1,255 | 28,891,930 | 138,949,785 |
| 1948..... | 5,244,837 | 56,380,098 | 25,614,443 | 129,929,580 | 14,632 | 78,073 | 30,873,912 | 186,387,751 |
| 1949..... | 3,945,135 | 45,656,328 | 18,233,528 | 95,403,106 | 16,547 | 89,629 | 22,195,210 | 141,149,063 |
| 1950..... | 4,286,383 | 54,285,320 | 22,660,969 | 120,443,963 | 7,471 | 34,848 | 26,954,823 | 174,764,131 |
| 1951..... | 3,853,431 | 51,244,639 | 22,938,824 | 116,802,323 | 9,150 | 42,486 | 26,801,405 | 168,089,448 |
| 1952..... | 3,894,863 | 49,430,308 | 21,030,503 | 101,203,443 | 7,487 | 33,403 | 24,932,853 | 150,667,154 |
| 1953..... | 2,989,054 | 40,088,265 | 20,273,425 | 96,464,453 | 3,062 | 14,735 | 23,265,541 | 136,567,453 |
| 1954..... | 2,754,882 | 33,163,183 | 15,822,283 | 71,617,515 | 2,824 | 14,500 | 18,579,989 | 104,795,198 |
| 1955..... | 2,646,503 | 30,190,488 | 17,094,480 | 76,352,171 | 1,548 | 8,663 | 19,742,531 | 106,550,922 |
| 1956..... | 2,545,627 | 30,060,480 | 20,065,807 | 98,666,368 | 1,940 | 9,822 | 22,613,374 | 128,736,670 |

¹ Includes anthracite dust.

² Includes coal ex-warehoused for ships' stores.

³ Canada also imported 245,678 tons of briquettes of coal or coke valued at \$2,253,654 in 1947, 308,753 tons valued at \$3,204,839 in 1948, 186,971 tons valued at \$2,185,707 in 1949, 191,134 tons valued at \$2,316,570 in 1950, 170,157 tons valued at \$2,061,798 in 1951, 155,597 tons valued at \$1,868,619 in 1952, 128,673 tons valued at \$1,601,376 in 1953, 128,163 tons valued at \$1,583,610 in 1954, 124,216 tons valued at \$1,536,347 in 1955 and 126,724 tons valued at \$1,561,699 in 1956.

22.—Exports of Domestic Coal 1947-56

NOTE.—Figures for 1868-1910 are given in the 1911 Year Book, p. 421; for 1911-28 in the 1939 edition, p. 349; for 1929-44 in the 1946 edition, p. 348; and for 1945 and 1946 in the 1956 edition, p. 540.

| Year | Quantity | Value | Year | Quantity | Value |
|-----------|-----------|------------|-----------|----------|-----------|
| | tons | \$ | | tons | \$ |
| 1947..... | 714,549 | 5,440,788 | 1952..... | 388,960 | 3,203,522 |
| 1948..... | 1,273,262 | 11,555,985 | 1953..... | 255,274 | 1,999,908 |
| 1949..... | 432,043 | 3,563,892 | 1954..... | 219,346 | 1,716,435 |
| 1950..... | 394,961 | 3,198,040 | 1955..... | 592,782 | 4,870,893 |
| 1951..... | 435,083 | 3,495,664 | 1956..... | 594,166 | 4,710,030 |

The sources of coal consumed in Canada in the years 1947-56 are shown in Table 23 and detailed figures of coal made available for consumption in 1955 and 1956 are given in Table 24; the difference between the totals of the two tables in the same year is accounted for by the fact that coal received may be held in bond at Canadian ports and not cleared for consumption until required, and coal received in previous years may be taken out of bond (cleared for consumption) in a later year. Normally the coal made available for consumption is greater than the apparent domestic consumption as coal is landed at

Canadian ports and re-exported or ex-warehoused for ships' stores without being taken out of bond but, while remaining in bond at the port, it is available for domestic consumption if required.

23.—Consumption of Canadian and Imported Coal in Canada 1947-56

Note.—Figures for 1886-1910 are given in the 1921 Year Book, p. 354; for 1911-28 in the 1939 edition, p. 350; for 1929-44 in the 1946 edition, p. 349; and for 1945 and 1946 in the 1956 edition, p. 540.

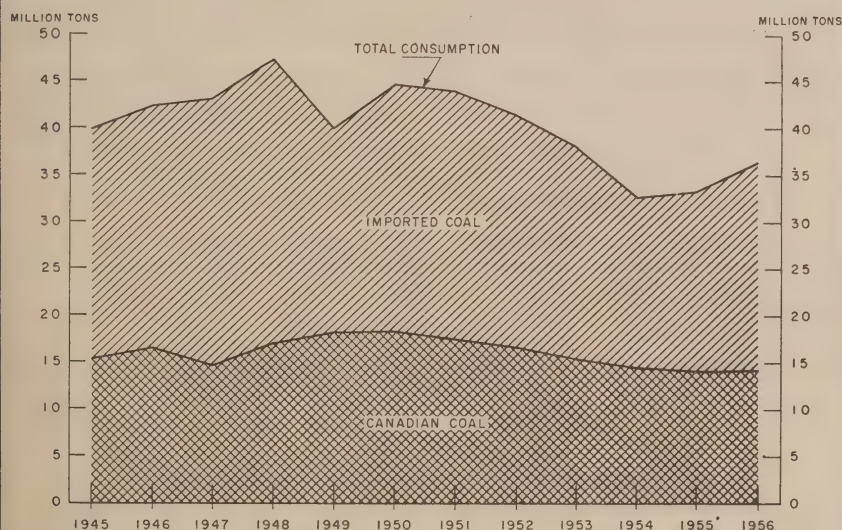
| Year | Canadian Coal ¹ | | Imported Coal 'Entered for Consumption' | | | | Grand Total | Consumption per Capita ³ |
|-----------|----------------------------|------|---|---------------------|--------------------|------|-------------|-------------------------------------|
| | | | From United States | From United Kingdom | Total ² | | | |
| | | | | | tons | tons | | |
| 1947..... | 14,673,967 | 34.0 | 28,410,149 | 52,777 | 28,462,242 | 66.0 | 43,136,209 | 3.45 |
| 1948..... | 16,928,028 | 36.0 | 30,295,841 | 162,550 | 30,454,917 | 64.0 | 47,382,945 | 3.70 |
| 1949..... | 18,104,626 | 45.3 | 21,501,583 | 331,457 | 21,833,057 | 54.7 | 39,937,683 | 2.97 |
| 1950..... | 18,224,944 | 40.6 | 26,224,893 | 423,874 | 26,649,049 | 59.4 | 44,873,993 | 3.27 |
| 1951..... | 17,571,154 | 39.8 | 26,232,211 | 291,656 | 26,523,921 | 60.2 | 44,095,075 | 2.92 |
| 1952..... | 16,749,416 | 40.5 | 24,248,804 | 356,032 | 24,603,789 | 59.5 | 41,353,205 | 2.87 |
| 1953..... | 15,240,105 | 40.0 | 22,548,793 | 352,383 | 22,900,392 | 60.0 | 38,140,497 | 2.58 |
| 1954..... | 14,466,212 | 44.0 | 18,054,962 | 266,304 | 18,322,056 | 56.0 | 32,788,268 | 2.16 |
| 1955..... | 14,060,039 | 42.1 | 19,053,434 | 269,898 | 19,322,134 | 57.9 | 33,382,173 | 2.14 |
| 1956..... | 14,115,095 | 38.9 | 22,045,485 | 153,404 | 22,198,049 | 61.1 | 36,313,144 | 2.26 |

¹ The sum of Canadian coal mines' sales, colliery consumption, coal supplied to employees and coal used in making coke, etc., less the tonnage of coal exported.

² Includes small tonnages from countries other than the United Kingdom and the United States. Deductions have been made from this column to take account of foreign coal re-exported from Canada and bituminous coal ex-warehoused for ships' stores.

³ Figures based on estimates of population given at p. 119.

CONSUMPTION OF COAL IN CANADA, 1945-1956

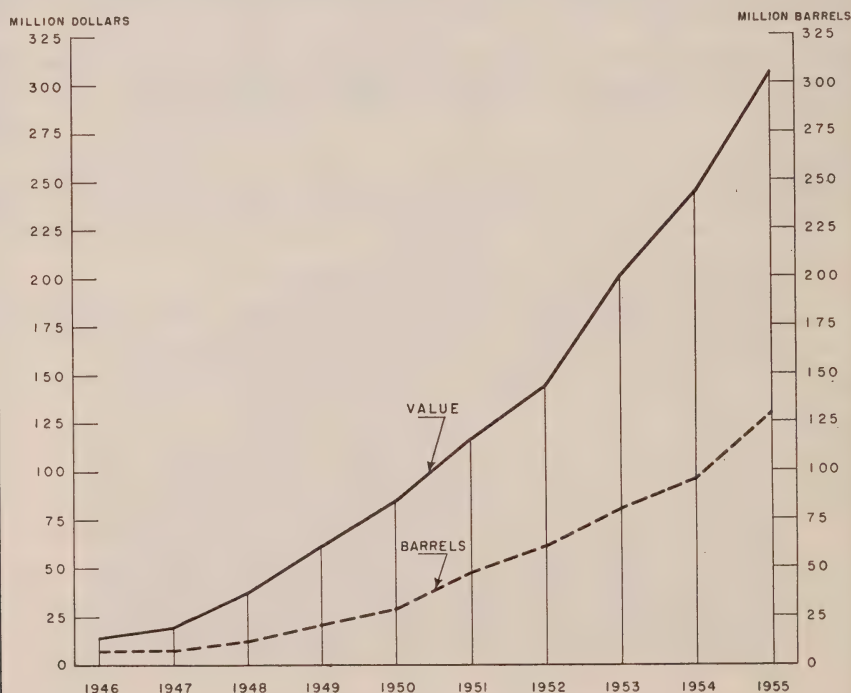


24.—Coal Made Available for Consumption in Canada 1955 and 1956Note.—For details by provinces, see DBS annual report, *The Coal Mining Industry*.

| Grade | Canadian Coal | | | | Coal Imported ¹ | | Coal Made Available for Consumption | |
|--------------------|-------------------|-------------------|----------------|----------------|----------------------------|-------------------|-------------------------------------|-------------------|
| | Produced | | Exported | | 1955 | 1956 | 1955 | 1956 |
| | 1955 | 1956 | 1955 | 1956 | | | | |
| | tons | tons | tons | tons | tons | tons | tons | tons |
| Anthracite..... | — | — | — | — | 2,544,574 | 2,519,996 | 2,544,574 | 2,519,996 |
| Bituminous..... | 10,184,857 | 10,309,587 | 506,135 | 472,306 | 16,827,931 | 20,481,329 | 26,506,653 | 30,318,610 |
| Subbituminous... | 2,340,207 | 2,264,382 | 367 | 246 | — | — | 2,339,840 | 2,264,136 |
| Lignite..... | 2,293,816 | 2,341,641 | 101 | 4,950 | — | — | 2,293,715 | 2,336,691 |
| Totals..... | 14,818,880 | 14,915,610 | 506,603 | 477,502 | 19,372,505 | 23,001,325 | 33,684,782 | 37,439,433 |

¹ Coal reaching Canadian ports whether or not it is cleared through customs, exclusive of 117,508 tons of imported briquettes in 1955 and 118,975 tons in 1956.

Petroleum.—Of the record 1956 total of 170,600,000 bbl. of crude petroleum produced in Canada, 99.6 p.c. was produced west of Ontario. Alberta continued to lead all provinces with an output of 144,300,000 bbl., which was 84.6 p.c. of the national production and an increase of 27.7 p.c. over 1955. Saskatchewan and Manitoba accounted for 14.7 p.c. of the total with both provinces showing substantial gains during the year. British Columbia reported its first production in 1956.

PRODUCTION AND GROSS VALUE OF CRUDE PETROLEUM, 1946-55

25.—Quantity and Value of Crude Petroleum Produced by Province 1947-56

NOTE.—Figures for 1936-44 are given in the 1948-49 Year Book, p. 476, and for 1945 and 1946 in the 1956 edition, p. 541.

| Year | New Brunswick | Ontario | Manitoba | Saskatchewan | Alberta | Northwest Territories | Canada |
|-----------|---------------|-----------|------------|--------------|-------------|-----------------------|--------------------------|
| QUANTITY | | | | | | | |
| | bbl. | bbl. | bbl. | bbl. | bbl. | bbl. | bbl. |
| 1947..... | 23,129 | 131,295 | — | 540,117 | 6,770,477 | 227,474 | 7,692,492 |
| 1948..... | 21,372 | 176,989 | — | 849,166 | 10,888,592 | 350,541 | 12,286,660 |
| 1949..... | 19,544 | 260,670 | — | 782,188 | 20,087,418 | 155,528 | 21,305,348 |
| 1950..... | 17,137 | 250,655 | — | 1,041,098 | 27,548,169 | 186,729 | 29,043,788 |
| 1951..... | 15,551 | 197,171 | 10,698 | 1,249,281 | 45,915,384 | 227,449 | 47,615,534 |
| 1952..... | 14,237 | 191,814 | 104,826 | 1,696,505 | 58,915,723 | 314,217 | 61,237,322 |
| 1953..... | 14,738 | 299,685 | 653,514 | 2,797,888 | 76,816,333 | 316,689 | 80,898,897 |
| 1954..... | 13,046 | 412,474 | 2,148,184 | 5,422,899 | 87,713,855 | 369,887 | 96,080,345 |
| 1955..... | 12,548 | 525,510 | 4,145,756 | 11,317,168 | 113,035,046 | 404,219 | 129,440,247 |
| 1956..... | 22,300 | 603,900 | 5,885,000 | 19,200,000 | 144,300,000 | 457,000 | 170,569,200 ¹ |
| VALUE | | | | | | | |
| | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| 1947..... | 32,381 | 350,000 | — | 614,156 | 18,078,907 | 500,238 | 19,575,682 |
| 1948..... | 29,920 | 608,109 | — | 976,541 | 35,127,751 | 676,574 | 37,418,895 |
| 1949..... | 27,362 | 901,143 | — | 836,941 | 58,999,936 | 353,108 | 61,118,490 |
| 1950..... | 23,992 | 892,000 | — | 1,134,797 | 82,216,492 | 352,656 | 84,619,937 |
| 1951..... | 21,771 | 677,905 | 26,478 | 1,659,045 | 113,870,152 | 399,887 | 116,655,238 |
| 1952..... | 19,932 | 641,037 | 229,299 | 2,256,352 | 139,512,432 | 379,160 | 143,038,212 |
| 1953..... | 20,633 | 994,835 | 1,714,806 | 3,833,107 | 193,761,644 | 257,251 | 200,582,276 |
| 1954..... | 18,265 | 1,391,687 | 5,619,649 | 8,183,304 | 228,319,165 | 344,960 | 243,877,030 |
| 1955..... | 17,567 | 1,599,335 | 9,618,154 | 18,317,968 | 274,901,232 | 1,185,780 | 305,640,036 |
| 1956..... | 31,200 | 1,984,000 | 13,653,200 | 31,100,000 | 353,535,000 | 1,340,000 | 401,840,650 ¹ |

¹ Includes 101,000 bbl. valued at \$197,250 produced in British Columbia.

Natural Gas Production.—The estimated record flow of natural gas for all Canadian wells during 1956 was 173,300,000 M cu. feet. The production of natural gas in Canada is dependent upon markets and transportation. Some expansion in markets permitted an increase of 14.9 p.c. in natural gas recoveries in 1956. Alberta accounted for 86.6 p.c. of this amount but increases were shown by all producing provinces except New Brunswick. British Columbia reported its first small production from the Fort St. John area.

26.—Quantities of Natural Gas Produced by Province and Total Value 1947-56

NOTE.—Figures for 1920-28 are given in the 1940 Year Book, p. 347; for 1929-44 in the 1946 edition, p. 350; and for 1945 and 1946 in the 1956 edition, p. 543.

| Year | New Brunswick | Ontario | Saskatchewan | Alberta | Northwest Territories | Canada | |
|-----------|---------------|------------|--------------|-------------|-----------------------|-------------|-------------------------|
| | M cu. ft. | M cu. ft. | M cu. ft. | M cu. ft. | M cu. ft. | M cu. ft. | \$ |
| 1947..... | 489,810 | 7,785,921 | 274,193 | 44,106,643 | — | 52,656,567 | 13,429,558 |
| 1948..... | 420,352 | 8,590,429 | 477,271 | 48,965,217 | 150,000 | 58,603,269 | 15,632,507 |
| 1949..... | 375,035 | 8,024,213 | 812,916 | 51,179,779 | 65,234 | 60,457,177 | 11,620,302 |
| 1950..... | 361,877 | 8,009,488 | 813,554 | 58,603,976 | 33,335 | 67,822,230 | 6,433,041 |
| 1951..... | 261,579 | 8,442,842 | 860,082 | 69,876,831 | 19,333 | 79,460,667 | 7,158,920 |
| 1952..... | 202,042 | 8,302,190 | 1,007,491 | 79,149,895 | 24,847 | 88,686,465 | 9,517,638 |
| 1953..... | 177,112 | 9,708,969 | 1,422,128 | 89,651,605 | 26,109 | 100,985,923 | 10,877,017 |
| 1954..... | 183,457 | 10,015,818 | 3,333,077 | 107,173,777 | 29,085 | 120,735,214 | 12,482,109 |
| 1955..... | 186,549 | 10,852,857 | 6,706,743 | 133,007,493 | 18,670 | 150,772,312 | 15,098,508 |
| 1956..... | 185,000 | 12,882,500 | 10,000,000 | 150,000,000 | 21,000 | 173,260,500 | 17,542,555 ¹ |

¹ Includes 172,000 M cu. feet valued at \$18,455 produced in British Columbia.

Subsection 6.—Production of Structural Materials

Continued high levels of construction in Canada raised the production of structural materials as a group to \$247,300,000 in 1956, the highest on record. The main advances were recorded in New Brunswick, Quebec, Ontario, Manitoba and Alberta. Minor gains

were recorded in all other provinces except Saskatchewan. Cement showed an increase of about 18 p.c. over 1955 and clay products 8 p.c. The output of sand, sand and gravel, and stone remained near the 1955 levels.

Cement.—In 1956, both the value and quantity of cement produced increased about 19 p.c. over 1955. The industry has nearly tripled its output during the past ten years and there are now 16 operating mills in Canada with an annual production capacity of almost 36,000,000 bbl. Factories under construction at Picton, Ont., and at Vancouver, B.C., will augment that capacity. In 1956, Quebec produced 36.4 p.c. of the Canadian total, Ontario 28.3 p.c., Alberta 12.4 p.c., Manitoba 10.6 p.c. and British Columbia 7.6 p.c.

27.—Quantity and Value of Production, Imports, Exports and Apparent Consumption of Cement 1947-56

NOTE.—Figures for 1910-28 are given in the 1939 Year Book, p. 356; for 1929-44 in the 1946 edition, p. 356; and for 1945 and 1946 in the 1956 edition, p. 545.

| Year | Production ¹ | | Imports | | Exports | | Apparent Consumption |
|-----------|-------------------------|------------|-------------------|-----------|-------------------|-----------|----------------------|
| | Quantity | Value | Quantity | Value | Quantity | Value | Quantity |
| | bbl. ² | \$ | bbl. ² | \$ | bbl. ² | \$ | bbl. ² |
| 1947..... | 11,936,245 | 21,968,909 | 1,248,625 | 3,843,652 | 88,030 | 198,354 | 13,096,840 |
| 1948..... | 14,127,123 | 28,264,987 | 1,120,671 | 3,995,173 | 72,999 | 200,575 | 15,174,795 |
| 1949..... | 15,916,564 | 32,801,936 | 2,284,001 | 6,877,939 | 19,212 | 51,733 | 18,181,353 |
| 1950..... | 16,741,826 | 35,894,124 | 1,386,219 | 3,788,981 | 23,909 | 111,351 | 18,104,136 |
| 1951..... | 17,007,812 | 40,446,288 | 2,327,431 | 7,447,859 | 2,590 | 12,386 | 19,332,653 |
| 1952..... | 18,520,538 | 48,059,470 | 2,913,981 | 9,068,181 | 4,305 | 20,686 | 21,430,214 |
| 1953..... | 22,238,335 | 58,842,022 | 2,482,783 | 7,403,158 | 14,728 | 77,559 | 24,706,390 |
| 1954..... | 22,437,477 | 59,035,644 | 2,292,200 | 6,316,890 | 123,702 | 496,058 | 24,605,975 |
| 1955..... | 25,168,464 | 65,650,025 | 2,959,370 | 8,443,415 | 965,184 | 3,139,498 | 27,162,650 |
| 1956..... | 29,719,377 | 77,876,046 | 3,426,426 | 8,078,334 | 711,775 | 1,984,908 | 32,434,028 |

¹ 'Production' as used here means quantity and value of sales.

² The barrel of cement equals 350 lb.

Clay Products.—The sales value of clay products produced in 1956 was the highest recorded. Common clays suitable for the production of building bricks and tile are found in all the provinces; production is greatest in Ontario and Quebec. Stoneware clays are produced largely from the Eastend and Willows areas in Saskatchewan and shipped to Medicine Hat, Alta., where, utilizing the cheap gas fuel, they are manufactured into stoneware, sewer pipe, pottery, tableware, etc. Stoneware clay also occurs in Nova Scotia and, although it has not been developed extensively for ceramic use, some is used for pottery. Two large plants and a few small plants manufacture fireclay refractories from domestic clay in British Columbia, Saskatchewan and Nova Scotia. Deposits of high-grade, plastic, white burning clays occur in northern Ontario and deposits yielding high-grade china clay have been found along the Fraser River in British Columbia but these have not been used on a commercial scale. Ball clays of high bond strength occurring in the white mud beds of southern Saskatchewan have not been developed to any extent.

28.—Value (Total Sales) of Clay Products Produced by Province 1947-56

NOTE.—Figures for 1926-44 are given in the 1946 Year Book, p. 356, and for 1945 and 1946 in the 1956 Year Book, p. 544.

| Year | Newfoundland | Nova Scotia | New Brunswick | Quebec | Ontario |
|-----------|--------------|-------------|---------------|-----------|------------|
| | \$ | \$ | \$ | \$ | \$ |
| 1947..... | ... | 752,126 | 381,184 | 4,257,423 | 5,289,528 |
| 1948..... | ... | 1,031,685 | 434,772 | 5,123,908 | 6,563,754 |
| 1949..... | 25,450 | 1,053,845 | 515,767 | 5,580,421 | 7,435,439 |
| 1950..... | 31,089 | 1,126,969 | 681,139 | 6,324,387 | 9,323,263 |
| 1951..... | 32,183 | 1,202,428 | 740,861 | 6,776,430 | 10,484,341 |
| 1952..... | 29,285 | 1,221,893 | 655,094 | 6,645,387 | 11,975,200 |
| 1953..... | 39,500 | 1,234,319 | 620,769 | 8,070,942 | 14,829,222 |
| 1954..... | 33,042 | 1,082,039 | 587,994 | 8,055,692 | 17,230,231 |
| 1955..... | 49,338 | 1,196,968 | 704,025 | 8,451,362 | 18,314,320 |
| 1956..... | 49,000 | 1,185,301 | 751,600 | 9,501,527 | 19,864,542 |

28.—Value (Total Sales) of Clay Products Produced by Province 1947-56—concluded

| Year | Manitoba | Saskatchewan | Alberta | British Columbia | Canada |
|-----------|----------|--------------|-----------|------------------|------------|
| | \$ | \$ | \$ | \$ | \$ |
| 1947..... | 392,518 | 495,016 | 1,771,250 | 1,147,144 | 14,486,189 |
| 1948..... | 517,181 | 509,593 | 2,055,738 | 1,392,417 | 17,629,048 |
| 1949..... | 514,705 | 545,588 | 1,603,199 | 707,295 | 17,981,709 |
| 1950..... | 690,730 | 581,506 | 1,950,309 | 1,081,496 | 21,790,888 |
| 1951..... | 673,698 | 616,655 | 1,787,731 | 1,213,329 | 23,527,656 |
| 1952..... | 575,088 | 711,778 | 1,964,618 | 1,183,195 | 24,961,528 |
| 1953..... | 568,477 | 742,959 | 2,135,085 | 1,536,458 | 29,777,731 |
| 1954..... | 512,989 | 844,398 | 2,316,982 | 1,696,731 | 32,360,098 |
| 1955..... | 635,554 | 992,307 | 2,800,481 | 2,115,415 | 35,259,770 |
| 1956..... | 537,300 | 1,026,567 | 3,055,020 | 2,091,255 | 38,062,112 |

Sand, Gravel and Stone.—Deposits of sand and gravel are numerous throughout Eastern Canada with the exception of Prince Edward Island where gravels are scarce. The local needs for these materials are usually supplied from the nearest deposits as their cost to the consumer is governed largely by the length of the haul. This accounts for the large number of small pits and the small number of large plants. Every province except New Brunswick and Prince Edward Island produces natural bonded sand but some grades particularly suitable for certain industries demand a much higher price than ordinary sand. Quebec and Ontario contributed 71.3 p.c. of the total quantity of sand and gravel in 1956. The greater part of the output is used in road improvement, concrete works and railway ballast, and most of the commercial plants are equipped for producing crushed gravel, a product that can compete with crushed stone.

The stone industry has two main divisions, stone quarrying and the stone products industry. The granite, limestone, marble, sandstone and slate quarries of Canada yield high grade structural and decorative materials and also supply requirements for chemical and other allied industries. The gross value of stone of all varieties produced in Canada in 1956 totalled \$48,809,918 as compared with \$43,736,687 in 1955.

29.—Quantity and Value of Sand, Sand and Gravel, and Stone Produced 1954-56

| Material and Purpose | 1954 | | 1955 | | 1956 | |
|--------------------------------------|--------------------|-------------------|--------------------|-------------------|--------------------|-------------------|
| | Quantity | Gross Value | Quantity | Gross Value | Quantity | Gross Value |
| | tons | \$ | tons | \$ | tons | \$ |
| Sand— | | | | | | |
| Moulding sand..... | 18,331 | 48,544 | 15,838 | 43,468 | 26,871 | 71,163 |
| For building, concrete, roads, etc.. | 8,961,378 | 6,950,734 | 12,341,052 | 9,879,011 | 11,902,438 | 9,219,153 |
| Other..... | 374,704 | 136,395 | 427,295 | 220,031 | 553,030 | 369,680 |
| Sand and Gravel— | | | | | | |
| For railway ballast..... | 6,083,110 | 2,433,413 | 5,129,714 | 1,711,776 | 7,124,461 | 2,493,086 |
| For concrete, roads, etc..... | 73,899,831 | 35,652,959 | 83,941,517 | 40,245,390 | 102,177,661 | 51,832,543 |
| For mine filling..... | 4,405,652 | 1,345,235 | 5,249,860 | 1,467,341 | 2,947,289 | 848,259 |
| Crushed gravel..... | 17,218,028 | 12,420,391 | 20,419,198 | 14,208,036 | 24,069,518 | 17,123,468 |
| Totals, Sand and Gravel..... | 110,961,034 | 58,987,671 | 127,524,474 | 67,775,053 | 148,801,268 | 81,957,352 |
| Stone— | | | | | | |
| Building..... | 134,718 | 5,071,852 | 137,664 | 5,103,812 | 139,473 | 4,929,535 |
| Monumental and ornamental..... | 18,424 | 1,483,344 | 14,889 | 1,152,288 | 15,019 | 1,159,881 |
| Limestone for agriculture..... | 364,296 | 935,020 | 426,041 | 1,031,621 | 476,506 | 1,232,874 |
| Chemical Uses— | | | | | | |
| Flux..... | 1,177,128 | 1,500,407 | 1,546,288 | 1,824,847 | 1,667,251 | 2,093,475 |
| Pulp and paper..... | 461,981 | 1,384,391 | 450,329 | 1,376,294 | 433,840 | 1,280,158 |
| Other..... | 56,227 | 66,857 | 437,620 | 506,989 | 295,865 | 368,195 |
| Rubble and riprap..... | 10,469,944 | 6,975,942 | 2,116,646 | 2,628,355 | 1,338,988 | 1,383,843 |
| Crushed..... | 19,747,430 | 20,953,361 | 25,051,872 | 28,480,399 | 28,407,923 | 34,299,571 |
| Totals, Stone!..... | 32,767,925 | 39,857,134 | 30,512,920 | 43,736,687 | 33,257,318 | 48,809,918 |

¹ Includes minor items not specified.

Section 5.—Industrial Statistics of the Mineral Industry

The scope of the annual statistics on mineral production published by the Dominion Bureau of Statistics includes a general review of the principal mineral industries such as the copper-gold, silver-lead-zinc, and nickel-copper industries as well as a section on metallurgical works. Additional data published at irregular intervals include such features as numbers of employees, wages and salaries paid and net value of shipments.

The figures for 'net value of shipments' of industries given in Tables 30 and 31 are, in each table, the settlements received for shipments by producers and the additional values obtained when the smelting of ores is completed in Canada, less the cost of materials, fuel, etc. The totals indicate more nearly the actual returns to the different industries than do the values for the minerals in Table 2 of this Chapter where, with respect to copper, lead, zinc and silver, values are computed by applying the average prices for the year in the principal metal markets to the total production from mines and smelters with no reduction for fuel, electricity and other supplies consumed in the production process.

Some imported ores and concentrates are treated in Canadian non-ferrous smelting and refining works, especially in the production of aluminum, where imported ore only is used, and of cobalt which is derived mainly from African ores. The net shipments of these plants include therefore the net value of the metals recovered from these imported ores and to this extent the net shipments shown in Tables 30 and 31 include products of other than Canadian origin.

30.—Summary Statistics of the Mineral Industry by Province 1955 and 1956

| Year, Province or Territory | Plants or Mines | Em- ployees | Salaries and Wages | Purchased Fuel, Electricity and Process Supplies ¹ | Net Value of Shipments ² |
|--------------------------------|---------------------------|----------------|-----------------------|--|--|
| | No. | No. | \$ | \$ | \$ |
| 1955 | | | | | |
| Newfoundland..... | 963 | 4,273 | 14,768,356 | 23,381,931 | 43,810,350 |
| Nova Scotia..... | 435 | 11,895 | 35,221,162 | 14,990,225 | 53,220,581 |
| New Brunswick..... | 510 | 2,221 | 6,491,864 | 3,302,752 | 12,742,214 |
| Quebec..... | 4,366 | 36,068 | 135,625,841 | 475,756,481 | 411,667,591 |
| Ontario..... | 6,545 | 45,253 | 175,160,318 | 344,974,646 | 480,392,319 |
| Manitoba..... | 872 | 3,517 | 14,259,341 | 14,804,966 | 37,044,979 |
| Saskatchewan..... | 2,123 | 3,990 | 17,766,069 | 26,252,320 | 69,199,727 |
| Alberta..... | 7,235 | 9,540 | 34,371,452 | 18,908,459 | 320,395,543 |
| British Columbia..... | 979 | 15,029 | 59,481,061 | 139,225,129 | 210,742,540 |
| Northwest Territories..... | 49 | 1,028 | 5,133,979 | 2,877,902 | 21,943,403 |
| Yukon Territory..... | 39 | 822 | 4,316,258 | 3,752,708 | 9,154,913 |
| Canada, 1955..... | 24,115³ | 133,636 | 502,595,701 | 1,068,227,519 | 1,600,314,160 |
| 1956 | | | | | |
| Newfoundland..... | 972 | 5,032 | 19,058,143 | 28,841,084 | 52,661,275 |
| Nova Scotia..... | 645 | 11,897 | 34,753,648 | 14,459,171 | 52,334,682 |
| New Brunswick..... | 565 | 2,456 | 7,166,882 | 3,893,472 | 14,638,724 |
| Quebec..... | 4,296 | 36,976 | 145,450,586 | 541,567,689 | 456,301,953 |
| Ontario..... | 6,314 | 49,308 | 202,904,431 | 403,187,991 | 523,509,563 |
| Manitoba..... | 1,086 | 3,220 | 13,170,338 | 14,809,893 | 44,835,075 |
| Saskatchewan..... | 3,053 | 4,826 | 22,670,036 | 26,894,226 | 102,038,999 |
| Alberta..... | 8,813 | 10,089 | 42,098,665 | 22,106,762 | 400,305,131 |
| British Columbia..... | 1,078 | 16,864 | 70,494,703 | 167,070,027 | 164,568,929 |
| Northwest Territories..... | 81 | 1,111 | 5,679,522 | 3,845,286 | 18,244,965 |
| Yukon Territory..... | 35 | 781 | 4,600,700 | 4,982,862 | 8,297,575 |
| Canada, 1956..... | 26,937³ | 142,560 | 566,047,654 | 1,231,658,463 | 1,837,736,871 |

¹ Includes freight and smelter charges and cost of ores treated. process supplies, fuel, electricity, freight and smelter charges.

² Gross value of shipments less cost of
³ One plant on the border between Manitoba and Saskatchewan credited to both provinces.

A summary of the industrial statistics of the principal mineral industries operating in Canada in the years 1952 to 1956 is presented in Table 31.

31.—Summary Statistics of the Principal Mineral Industries 1952-56

| Industry and Year | Plants or Mines | Em- ployees | Salaries and Wages | Purchased Fuel, Electricity and Process Supplies ¹ | Net Value of Shipments ² |
|--|--------------------|----------------|-----------------------|--|--|
| | No. | No. | \$ | \$ | \$ |
| Metallics | | | | | |
| 1952 | 636 | 79,946 | 285,647,255 | 728,351,641 | 643,848,728 |
| 1953 | 574 | 76,826 | 285,940,984 | 713,345,667 | 643,620,543 |
| 1954 | 715 | 77,647 | 297,792,840 | 734,303,351 | 744,264,529 |
| 1955 | 818 | 81,970 | 329,437,928 | 971,546,007 | 909,932,534 |
| 1956 | 909 | 88,352 | 373,086,515 | 1,120,058,717 | 1,020,228,528 |
| Placer gold..... | | | | | |
| 1952 | 39 | 361 | 1,638,672 | 518,778 | 2,662,952 |
| 1953 | 56 | 306 | 1,372,504 | 259,011 | 1,878,310 |
| 1954 | 62 | 351 | 1,619,460 | 476,627 | 2,575,038 |
| 1955 | 64 | 345 | 1,480,868 | 284,511 | 2,443,595 |
| 1956 | 64 | 250 | 1,378,166 | 587,522 | 2,026,790 |
| Gold quartz..... | | | | | |
| 1952 | 216 | 20,757 | 69,004,828 | 34,912,550 | 100,083,506 |
| 1953 | 173 | 18,751 | 60,920,362 | 30,973,120 | 91,408,605 |
| 1954 | 157 | 18,479 | 63,578,156 | 32,017,855 | 95,627,104 |
| 1955 | 136 | 18,032 | 63,961,744 | 33,094,300 | 101,382,077 |
| 1956 | 133 | 17,031 | 62,701,494 | 30,972,433 | 97,011,062 |
| Copper-gold-silver..... | | | | | |
| 1952 | 98 | 7,210 | 26,711,225 | 34,998,574 | 80,668,817 |
| 1953 | 84 | 7,476 | 27,582,448 | 31,970,373 | 68,881,908 |
| 1954 | 118 | 7,837 | 29,791,332 | 35,079,924 | 70,814,052 |
| 1955 | 186 | 9,025 | 36,391,460 | 45,729,136 | 99,540,486 |
| 1956 | 314 | 10,533 | 43,929,096 | 50,245,735 | 96,941,696 |
| Silver-cobalt..... | | | | | |
| 1952 | 19 | 696 | 2,161,894 | 1,213,660 | 3,556,975 |
| 1953 | 14 | 739 | 2,204,274 | 1,387,416 | 3,235,991 |
| 1954 | 15 | 808 | 2,614,266 | 1,191,243 | 4,103,256 |
| 1955 | 14 | 762 | 2,598,437 | 1,184,721 | 4,350,174 |
| 1956 | 15 | 694 | 2,415,545 | 1,061,309 | 3,502,093 |
| Silver-lead-zinc..... | | | | | |
| 1952 | 177 | 10,331 | 37,643,614 | 60,189,782 | 104,937,002 |
| 1953 | 143 | 7,144 | 28,695,473 | 55,904,834 | 67,898,350 |
| 1954 | 124 | 6,386 | 24,847,011 | 58,178,798 | 78,077,960 |
| 1955 | 103 | 6,529 | 26,741,770 | 57,523,638 | 82,663,039 |
| 1956 | 96 | 6,338 | 27,253,247 | 56,316,672 | 86,604,019 |
| Nickel-copper..... | | | | | |
| 1952 | 22 | 10,820 | 42,151,955 | 12,046,000 | 59,694,630 |
| 1953 | 32 | 11,511 | 47,596,673 | 16,199,809 | 64,973,869 |
| 1954 | 37 | 11,244 | 48,142,987 | 19,576,040 | 74,891,033 |
| 1955 | 38 | 10,953 | 48,670,802 | 20,573,009 | 75,454,036 |
| 1956 | 55 | 11,872 | 55,486,888 | 20,880,263 | 82,735,929 |
| Iron ³ | | | | | |
| 1955 | 30 | 4,892 | 18,740,274 | 38,646,915 | 71,788,935 |
| 1956 | 40 | 6,469 | 29,249,650 | 60,755,398 | 99,606,720 |
| Miscellaneous metals..... | | | | | |
| 1952 | 47 | 5,163 | 18,370,772 | 14,119,614 | 25,523,464 |
| 1953 | 54 | 5,784 | 23,023,639 | 15,940,190 | 35,136,282 |
| 1954 | 180 | 6,404 | 24,603,658 | 17,241,822 | 66,138,130 |
| 1955 | 223 | 2,826 | 12,663,195 | 6,798,377 | 28,305,111 |
| 1956 | 169 | 4,377 | 20,532,485 | 13,712,560 | 40,781,866 |
| Smelting and refining..... | | | | | |
| 1952 | 18 | 24,608 | 87,964,295 | 570,352,683 | 266,721,382 |
| 1953 | 18 | 25,115 | 94,545,611 | 560,710,914 | 310,207,228 |
| 1954 | 22 | 26,048 | 102,595,970 | 570,541,042 | 352,037,956 |
| 1955 | 24 | 28,606 | 118,189,378 | 767,711,400 | 444,005,081 |
| 1956 | 23 | 30,788 | 130,139,944 | 885,546,825 | 511,018,353 |
| Non-metallics (excluding Fuels) | | | | | |
| 1952 | 196 | 11,247 | 36,002,097 | 22,922,666 | 98,919,971 |
| 1953 | 210 | 11,099 | 36,891,610 | 23,208,288 | 96,771,684 |
| 1954 | 207 | 10,892 | 37,878,138 | 23,474,927 | 98,626,771 |
| 1955 | 243 | 11,722 | 42,390,871 | 27,496,572 | 112,871,820 |
| 1956 | 209 | 12,548 | 47,128,001 | 30,158,075 | 122,414,048 |

For footnotes, see end of table, p. 555.

31.—Summary Statistics of the Principal Mineral Industries 1952-56—continued

| Industry and Year | Plants or Mines | Em- ployees | Salaries and Wages | Purchased Fuel, Electricity and Process Supplies ¹ | Net Value of Shipments ² |
|--|--------------------|----------------|-----------------------|--|--|
| | No. | No. | \$ | \$ | \$ |
| Non-metallics (excluding Fuels)—concl. | | | | | |
| Asbestos.....1952 | 23 | 6,318 | 23,625,431 | 13,137,225 | 76,158,201 |
| 1953 | 24 | 6,482 | 24,567,463 | 14,088,699 | 71,990,225 |
| 1954 | 25 | 6,563 | 24,850,100 | 14,054,972 | 72,386,464 |
| 1955 | 30 | 6,729 | 28,116,049 | 16,297,401 | 83,378,250 |
| 1956 | 23 | 7,065 | 30,411,878 | 17,877,081 | 85,427,228 |
| Feldspar, quartz and nepheline syenite..1952 | 34 | 426 | 1,251,943 | 660,344 | 3,044,081 |
| 1953 | 33 | 431 | 1,358,308 | 635,037 | 3,375,154 |
| 1954 | 29 | 377 | 1,103,766 | 554,188 | 3,107,993 |
| 1955 | 33 | 414 | 1,359,695 | 775,685 | 3,734,690 |
| 1956 | 30 | 502 | 1,792,484 | 759,489 | 5,258,255 |
| Gypsum.....1952 | 14 | 1,061 | 2,979,091 | 2,361,683 | 4,176,391 |
| 1953 | 14 | 954 | 2,891,848 | 2,059,208 | 5,340,676 |
| 1954 | 14 | 932 | 2,929,829 | 2,166,490 | 4,929,289 |
| 1955 | 14 | 944 | 2,874,198 | 2,190,435 | 5,846,718 |
| 1956 | 15 | 1,030 | 3,317,673 | 2,357,526 | 4,902,710 |
| Iron oxides.....1952 | 4 | 45 | 63,423 | 41,867 | 153,055 |
| 1953 | 4 | 37 | 83,095 | 42,843 | 152,958 |
| 1954 | 3 | 31 | 67,564 | 35,985 | 150,871 |
| 1955 | 4 | 33 | 71,781 | 44,156 | 121,772 |
| 1956 | 3 | 29 | 49,669 | 38,745 | 152,400 |
| Mica.....1952 | 28 | 115 | 168,176 | 34,814 | 159,292 |
| 1953 | 44 | 105 | 152,284 | 26,351 | 134,777 |
| 1954 | 32 | 44 | 59,194 | 13,932 | 71,207 |
| 1955 | 33 | 31 | 42,495 | 11,648 | 66,727 |
| 1956 | 23 | 23 | 37,673 | 8,841 | 88,208 |
| Peat.....1952 | 36 | 1,042 | 1,601,825 | 932,940 | 2,324,417 |
| 1953 | 36 | 955 | 1,579,715 | 984,997 | 2,447,096 |
| 1954 | 40 | 880 | 1,736,002 | 1,140,795 | 2,824,777 |
| 1955 | 39 | 1,180 | 2,109,166 | 1,350,085 | 3,301,326 |
| 1956 | 38 | 1,274 | 2,538,885 | 1,427,053 | 4,024,252 |
| Salt.....1952 | 12 | 651 | 1,907,219 | 3,060,246 | 5,995,833 |
| 1953 | 12 | 676 | 1,957,318 | 2,826,033 | 5,579,756 |
| 1954 | 13 | 669 | 2,067,424 | 2,702,731 | 7,151,404 |
| 1955 | 13 | 691 | 2,347,080 | 3,299,285 | 8,569,792 |
| 1956 | 13 | 785 | 2,740,685 | 3,454,283 | 10,552,905 |
| Talc and soapstone.....1952 | 3 | 54 | 117,144 | 74,194 | 228,924 |
| 1953 | 3 | 54 | 132,934 | 63,315 | 245,182 |
| 1954 | 4 | 53 | 134,437 | 100,754 | 288,294 |
| 1955 | 4 | 50 | 130,221 | 101,836 | 290,831 |
| 1956 | 4 | 67 | 169,120 | 113,533 | 315,802 |
| Miscellaneous non-metal ⁴1952 | 42 | 1,535 | 4,257,845 | 2,619,353 | 6,679,777 |
| 1953 | 40 | 1,405 | 4,168,645 | 2,481,805 | 7,505,860 |
| 1954 | 47 | 1,343 | 4,839,822 | 2,705,080 | 7,716,472 |
| 1955 | 73 | 1,650 | 5,340,186 | 3,426,041 | 7,561,714 |
| 1956 | 60 | 1,773 | 6,069,934 | 4,121,524 | 11,692,288 |
| Fuels.....1952 | 10,236 | 28,029 | 87,935,137 | 23,709,842 | 232,767,209 |
| 1953 | 11,435 | 26,766 | 83,854,023 | 23,951,642 | 290,107,746 |
| 1954 | 12,357 | 24,807 | 78,271,162 | 22,931,832 | 329,809,609 |
| 1955 | 14,329 | 23,458 | 76,343,685 | 24,921,036 | 388,519,230 |
| 1956 | 16,811 | 24,187 | 85,820,926 | 30,211,422 | 482,704,117 |

For footnotes, see end of table, p. 555.

31.—Summary Statistics of the Principal Mineral Industries 1952-56—concluded

| Industry and Year | Plants or Mines | Em- ployees | Salaries and Wages | Purchased Fuel, Electricity and Process Supplies ¹ | Net Value of Shipments ² |
|------------------------------|--------------------|----------------|-----------------------|--|--|
| | No. | No. | \$ | \$ | \$ |
| Fuels—concl. | | | | | |
| Coal.....1952 | 271 | 21,754 | 66,028,224 | 18,959,228 | 92,066,921 |
| 1953 | 241 | 19,847 | 59,350,290 | 18,146,436 | 84,575,439 |
| 1954 | 223 | 18,050 | 53,650,045 | 15,631,307 | 80,968,959 |
| 1955 | 203 | 16,590 | 50,325,387 | 15,368,193 | 78,211,278 |
| 1956 | 185 | 16,095 | 49,468,237 | 16,317,316 | 79,032,447 |
| Natural gas.....1952 | 4,132 | 2,573 | 7,296,092 | 336,666 | 5,517,385 |
| 1953 | 3,688 | 2,769 | 8,073,532 | 337,277 | 6,519,224 |
| 1954 | 3,572 | 2,887 | 8,864,662 | 356,404 | 7,330,405 |
| 1955 | 3,659 | 2,849 | 9,070,036 | 478,580 | 8,715,539 |
| 1956 | 3,484 | 2,947 | 10,617,695 | 844,887 | 8,429,004 |
| Petroleum.....1952 | 5,833 | 3,702 | 14,610,821 | 4,413,948 | 135,182,903 |
| 1953 | 7,506 | 4,150 | 16,430,201 | 5,467,929 | 199,013,083 |
| 1954 | 8,562 | 3,870 | 15,756,455 | 6,944,121 | 240,910,245 |
| 1955 | 10,467 | 4,019 | 16,948,262 | 9,074,263 | 301,592,413 |
| 1956 | 13,142 | 5,145 | 25,734,994 | 13,049,219 | 395,242,666 |
| Structural Materials. | | | | | |
|1952 | 8,889 | 14,894 | 43,391,662 | 35,466,899 | 136,918,411 |
| 1953 | 8,289 | 15,347 | 46,378,901 | 40,265,942 | 151,047,272 |
| 1954 | 8,625 | 16,099 | 51,363,733 | 41,692,754 | 167,197,627 |
| 1955 | 8,725 | 16,456 | 54,423,217 | 44,263,904 | 188,990,576 |
| 1956 | 9,008 | 17,473 | 60,012,212 | 51,330,249 | 212,390,178 |
| Clay products.....1952 | 133 | 3,568 | 9,812,214 | 5,116,848 | 19,844,680 |
| 1953 | 125 | 3,719 | 10,833,628 | 5,642,817 | 24,134,914 |
| 1954 | 125 | 3,929 | 12,112,490 | 6,023,812 | 26,336,286 |
| 1955 | 118 | 4,118 | 12,850,485 | 6,174,226 | 30,178,957 |
| 1956 | 119 | 4,418 | 14,793,971 | 7,335,562 | 30,449,418 |
| Cement.....1952 | 11 | 2,239 | 7,849,057 | 18,365,676 | 32,664,254 |
| 1953 | 11 | 2,391 | 8,873,694 | 21,799,652 | 40,428,272 |
| 1954 | 12 | 2,575 | 9,802,707 | 22,243,820 | 39,953,127 |
| 1955 | 12 | 2,801 | 10,962,895 | 24,475,775 | 44,336,891 |
| 1956 | 17 | 3,186 | 12,856,855 | 28,547,632 | 50,058,214 |
| Lime.....1952 | 42 | 1,005 | 3,145,246 | 4,435,054 | 9,784,399 |
| 1953 | 42 | 1,057 | 3,278,434 | 4,608,887 | 10,600,220 |
| 1954 | 40 | 1,012 | 3,349,881 | 4,078,017 | 10,810,714 |
| 1955 | 39 | 1,099 | 3,776,481 | 4,783,461 | 11,793,430 |
| 1956 | 38 | 1,100 | 3,853,007 | 4,906,353 | 11,555,978 |
| Sand and gravel.....1952 | 8,210 | 4,185 | 12,354,505 | 2,673,245 | 48,665,798 |
| 1953 | 7,623 | 4,377 | 13,253,953 | 3,526,252 | 49,959,149 |
| 1954 | 7,891 | 4,437 | 13,717,851 | 3,084,875 | 55,902,796 |
| 1955 | 7,999 | 4,360 | 14,442,413 | 3,358,947 | 64,416,106 |
| 1956 | 8,311 | 4,627 | 14,994,414 | 4,032,039 | 77,025,313 |
| Stone.....1952 | 493 | 3,897 | 10,230,640 | 4,876,076 | 25,959,280 |
| 1953 | 488 | 3,803 | 10,139,192 | 4,688,334 | 25,924,717 |
| 1954 | 557 | 4,146 | 12,380,804 | 5,662,230 | 34,194,904 |
| 1955 | 557 | 4,108 | 12,390,943 | 5,471,495 | 38,265,192 |
| 1956 | 523 | 4,142 | 13,513,965 | 6,408,663 | 42,401,255 |
| Grand Totals | | | | | |
|1952 | 19,957 | 134,116 | 452,976,151 | 810,451,048 | 1,112,454,319 |
| 1953 | 20,508 | 130,038 | 453,065,518 | 800,771,539 | 1,181,547,245 |
| 1954 | 21,904 | 129,445 | 465,305,873 | 822,402,864 | 1,339,898,736 |
| 1955 | 24,115 | 133,636 | 502,595,701 | 1,063,227,519 | 1,600,314,160 |
| 1956 | 26,937 | 142,560 | 566,047,654 | 1,231,658,463 | 1,837,736,871 |

¹ Includes freight and smelter charges and cost of ores treated.
process supplies, fuel, electricity, freight and smelter charges.
natural abrasives.² Gross value of shipments less cost of
³ Available from 1955 only.⁴ Includes

Section 6.—World Production of Certain Metallic Minerals and Fuels

Table 32 shows the production of certain metallic minerals and fuels in the different countries of the world for the year 1955. These figures are taken from the *United Nations Statistical Yearbook 1956* which presents production figures for 1936-55 for a much more extensive list of mining and quarrying industries. The 1955 figures are provisional and have been converted from kilograms to ounces troy for gold and from metric tons to short tons for the other metals and fuels shown.

32.—World Production of Certain Metallic Minerals and Fuels, 1955

NOTE.—Dashes are given in this table where no figures were shown in the *United Nations Statistical Yearbook* either because there was no production or because the quantity was not available.

| Country | Gold | Silver | Copper | Iron | Lead | Zinc | Coal | Crude Petroleum |
|-------------------------------|--------------------|----------------------|--------------------|----------------------|-------------------|-------------------|-----------------------|----------------------|
| | '000 oz. t. | '000 oz. t. | '000 tons | '000 tons | '000 tons | '000 tons | '000 tons | '000 tons |
| Algeria..... | — | — | — | 2,061.3 | 11.2 | 34.2 | 332.9 | 63.2 |
| Angola..... | — | — | 3.2 | — | — | — | — | — |
| Argentina..... | — | — | — | — | 29.5 | 23.4 | 147.0 | 4,811.6 |
| Australia..... | 1,049.0 | — | 45.3 | 2,580.5 | 318.7 | 287.2 | 21,608.6 | — |
| Austria..... | — | — | 3.0 | 975.5 | 6.1 | 7.8 | 188.5 | 4,040.0 |
| Bahrain..... | — | — | — | — | — | — | — | 1,655.7 |
| Bechuanaland..... | 0.5 | — | — | — | — | — | — | — |
| Belgian Congo..... | 369.9 ¹ | 4,083.1 | 258.7 ² | — | 0.1 | 74.7 | 529.1 | — |
| Belgium..... | — | — | — | 40.8 | — | — | 33,045.1 | — |
| Bolivia..... | 73.8 ³ | 5,915.7 ³ | 3.9 ³ | — | 21.1 ³ | 23.5 ³ | — | 386.9 |
| Brazil..... | 78.1 | — | — | — | — | — | 2,485.7 | 280.1 |
| British Guiana..... | 22.7 | — | — | — | — | — | — | — |
| British West Africa..... | — | 38.6 ^{3,4} | — | — | — | — | — | 5,722.1 |
| Brunei..... | — | — | — | — | — | — | 323.0 | — |
| Bulgaria..... | — | — | — | 77.2 | — | — | — | — |
| Burma..... | — | 1,536.8 | 0.4 | 4.4 | 31.4 | 16.2 | — | 234.8 |
| Cameroons, French..... | 0.5 | — | — | — | — | — | — | — |
| Canada..... | 4,542.0 | 27,723.6 | 324.6 | 9,557.0 ⁵ | 194.0 | 426.9 | 12,524.5 | 19,187.9 |
| Chile..... | 122.9 | 1,713.6 | 477.9 | 1,541.0 | 3.7 | 3.1 | 2,544.1 ⁶ | 370.4 |
| China (Taiwan only)..... | 28.1 | — | — | — | — | — | 2,600.4 ⁷ | 3.5 |
| Colombia..... | 380.8 | 112.5 | — | — | — | — | 2,039.3 | 6,055.0 ⁸ |
| Cuba..... | — | — | 19.3 | 20.9 | — | — | — | 3.5 |
| Cyprus..... | — | — | 29.5 | — | — | — | — | — |
| Czechoslovakia..... | — | — | — | 859.8 | — | — | 24,361.1 | — |
| Ecuador..... | 15.3 | 48.2 | — | — | 0.1 | — | — | 513.7 |
| Egypt..... | — | — | — | — | — | — | — | 2,007.3 ⁹ |
| El Salvador..... | 3.9 ³ | — | — | — | — | — | — | — |
| Fiji..... | 75.0 | — | — | — | — | — | — | — |
| Finland..... | 18.8 | 225.1 | 25.7 | — | 1.1 | 24.3 | — | — |
| France..... | 2.8 | 1,659.0 | — | 18,022.8 | 9.5 | 11.2 | 80,098.3 ⁹ | 975.5 |
| French Equatorial Africa..... | 46.6 | — | — | — | 3.6 | — | — | — |
| French Guiana..... | 8.7 | — | — | — | — | — | — | — |
| French West Africa..... | 0.2 | — | — | 362.7 | — | — | — | — |
| Germany— | — | — | — | — | — | — | 3,196.7 | — |
| East Germany..... | — | — | — | — | — | — | — | — |
| West Germany..... | — | — | 1.3 | 4,116.0 | 74.3 | 101.5 | 145,296.7 | 3,469.0 |
| Gold Coast (now Ghana)..... | 687.2 | ¹⁰ | — | — | — | — | — | — |
| Greece..... | — | 77.2 | — | 104.7 | 5.5 | 9.9 | — | — |
| Guatemala..... | — | — | — | — | 7.0 | 10.2 | — | — |
| Honduras..... | 0.8 ³ | 1,958.0 ³ | — | — | 2.0 | — | — | — |
| Hong Kong..... | — | — | — | 58.4 | — | — | — | — |
| Hungary..... | — | — | — | 121.3 | — | — | 2,967.4 | 1,764.8 |
| India..... | 211.5 | 131.8 | — | 2,910.1 | — | — | 42,798.3 | — |
| Indonesia..... | — | — | — | — | — | — | 897.3 | 12,996.2 |
| Iran..... | — | — | — | — | — | — | 277.8 | 18,816.4 |
| Iraq..... | — | — | — | — | — | — | — | 37,194.2 |
| Ireland..... | — | — | — | — | — | — | 218.3 | — |
| Italy..... | 5.6 | 858.4 | 0.4 | 761.7 | 56.0 | 129.4 | 1,251.1 | 225.6 |
| Japan..... | 288.7 | 7,311.1 | 80.5 | 942.5 | 28.9 | 119.8 | 46,763.3 | 384.7 |
| Kenya..... | 12.3 ³ | — | — | — | — | — | — | — |
| Korea (South)..... | 47.7 | 80.4 | 0.9 | 15.4 | 0.9 | — | 1,433.0 | — |
| Kuwait..... | — | — | — | — | — | — | — | 61,749.3 |
| Liberia..... | — | — | — | 1,282.0 | — | — | — | — |
| Luxembourg..... | — | — | — | 2,381.0 | — | — | — | — |
| Madagascar..... | 1.0 | — | — | — | — | — | — | — |
| Malaya, Federation of..... | 20.5 | — | — | 1,050.5 | — | — | — | — |
| Mexico..... | 382.9 | 47,968.9 | 60.3 | 472.9 | 232.4 | 297.0 | 1,479.3 | 14,099.7 |

For footnotes, see end of table, p. 557.

32.—World Production of Certain Metallic Minerals and Fuels, 1955—concluded

| Country | Gold | Silver | Copper | Iron | Lead | Zinc | Coal | Crude Petroleum |
|----------------------------|-----------------------|------------------------|--------------------|------------------------|-------------------|-------------------|-------------------------|--------------------|
| | '000 oz. t. | '000 oz. t. | '000 tons | '000 tons | '000 tons | '000 tons | '000 tons | '000 tons |
| Morocco— | | | | | | | | |
| Former French Zone.... | — | 980.6 | — | 152.1 | 97.8 | 47.7 | 514.8 | 113.0 |
| Former Spanish Zone.... | — | — | — | 696.7 | 0.7 ³ | — | — | — |
| Mozambique..... | — | — | — | — | — | — | 190.1 | — |
| Netherlands..... | — | — | — | — | — | — | 13,112.0 | 1,128.8 |
| New Guinea (Netherlands) | — | — | — | — | — | — | — | 522.5 |
| New Zealand..... | 26.4 | 28.9 | — | 1.4 | — | — | 877.4 | 0.9 |
| Nicaragua..... | 229.6 ³ | — | — | — | — | — | — | — |
| Nigeria..... | 0.7 | 10 | — | — | — | — | 838.9 | — |
| Northern Rhodesia..... | — | — | 383.3 ² | — | 18.0 ² | 31.2 ² | — | — |
| Norway..... | — | 61.1 | 15.4 | 951.3 ¹¹ | 0.8 | 7.5 | 354.9 | — |
| Pakistan..... | — | — | — | — | — | — | 608.5 ⁴ | 304.2 |
| Peru..... | 163.5 | 19,583.0 | 48.2 | 1,124.4 | 122.9 | 166.7 | 126.8 | 2,523.2 |
| Philippines..... | 419.1 | 501.6 | 19.3 | 899.5 | 2.6 | — | 143.5 | — |
| Poland..... | — | — | — | 695.6 ¹² | — | — | 104,141.9 | 198.4 |
| Portugal..... | — | — | 0.1 | 104.7 | 1.6 | — | 445.3 | — |
| Portuguese India..... | — | — | — | 877.4 ³ | — | — | — | — |
| Qatar..... | — | — | — | — | — | — | — | 5,994.4 |
| Romania..... | — | — | — | 297.6 | 12.2 ² | — | 440.9 | 11,684.5 |
| Sarawak..... | 0.5 | — | — | — | — | — | — | 69.4 |
| Saudi Arabia..... | — | — | — | — | — | — | — | 51,854.9 |
| Sierra Leone..... | — | 10 | — | 895.1 ³ | — | — | — | — |
| Southern Rhodesia..... | 524.7 | — | — | 51.0 | — | — | 3,654.2 | — |
| South West Africa..... | — | — | 23.6 | — | 216.1 | 23.3 | — | — |
| Spain..... | — | 1,549.7 | — | 1,705.3 | 69.9 | 101.7 | 13,697.3 | — |
| Sweden..... | — | — | 17.3 | 11,521.4 | 35.5 | 64.8 | 310.9 | — |
| Switzerland..... | — | — | — | 71.6 | — | — | — | — |
| Tanganyika..... | 68.9 ³ | — | — | — | 4.4 ³ | — | — | — |
| Thailand..... | — | — | — | — | 5.8 | — | — | — |
| Trinidad..... | — | — | — | — | — | — | — | 3,927.5 |
| Tunisia..... | — | 83.6 | — | 672.4 | 29.3 | 6.0 | — | — |
| Turkey..... | — | — | 26.2 ² | 607.4 | 2.9 | 2.5 | 6,058.3 | 196.9 |
| Uganda..... | 0.5 ³ | — | — | — | — | — | — | — |
| Union of South Africa..... | 14,602.3 | 1,472.5 | 47.4 | 1,391.1 | 0.6 | — | 35,396.3 | 41.0 ¹³ |
| U.S.S.R..... | — | — | — | 45,966.4 | — | — | 304,348.1 | 78,043.6 |
| United Kingdom..... | — | — | — | 5,072.8 | 6.8 | 3.2 | 248,193.0 ¹⁴ | 167.6 |
| United States of America.. | 1,876.8 ¹⁵ | 36,468.6 ¹⁵ | 998.6 | 59,524.8 ¹⁶ | 333.4 | 514.7 | 493,369.1 | 370,108.6 |
| Venezuela..... | 61.1 | — | — | 5,953.6 | — | — | 33.6 | 126,951.0 |
| Vietnam..... | — | — | — | — | — | — | 1,212.5 | — |
| Yugoslavia..... | 41.6 | 2,983.6 | 32.1 | 739.7 | 99.2 | 65.8 | 1,253.3 | 283.5 |

¹ Includes Ruanda-Urundi. ² Smelter production. ³ Exports. ⁴ Consists of Gold Coast (now Ghana), Nigeria and Sierra Leone. ⁵ Shipments. ⁶ Includes lignite. ⁷ Estimate for China (Mainland) 102,702,000 tons. ⁸ Includes natural gasoline. ⁹ Includes the Saar which became part of West Germany Jan. 1, 1957. ¹⁰ Included with British West Africa. ¹¹ Includes ferro-titanium. ¹² Includes content of iron pyrites. ¹³ Entirely shale oil. ¹⁴ Great Britain only. Excludes coal produced at quarries but includes open-cast coal. ¹⁵ Includes Alaska. ¹⁶ Excludes manganiferous iron ores.

CHAPTER XII.—POWER GENERATION AND UTILIZATION

CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

Section 1.—Water Power Resources and Their Development*

Canada, a land of many lakes and rivers, has been abundantly endowed by nature with great water power resources well distributed across the country. In most sections adequate precipitation and favourable topography result in numerous rivers on which falls and rapids frequently occur and which offer excellent opportunities for the development of hydraulic power; with the exception of the prairies of the middle west, water power resources of importance are found in virtually every part of the country. In British Columbia, where precipitation is high, the rivers flowing down the Pacific slope of the Rocky Mountains offer many fine power sites. Alberta, although a prairie province, also has mountain streams from the Rockies and great reserves of undeveloped power on its large northern rivers. The Canadian Shield of Precambrian rock, which forms an arc around Hudson Bay, covers a portion of the Northwest Territories and northern Saskatchewan as well as large parts of Manitoba, Ontario, Quebec and Labrador; it is a rough, forest covered, well watered area characterized by innumerable lakes and by rivers with many falls and rapids. The water power of the Great Lakes-St. Lawrence River System forms part of the vast resources of Ontario and Quebec upon which their status as the principal manufacturing provinces of Canada is dependent and which compensate in large degree for the lack of indigenous coal. In New Brunswick and Nova Scotia and on the Island of Newfoundland, precipitation is moderately heavy and the rivers, though not large, afford numerous possibilities for power developments of moderate size. In Labrador the potential resources of the Hamilton River are outstanding.

An accurate comparison of Canada's water power resources and their development with those of other countries is not possible because world statistics are incomplete and are tabulated on differing bases. However, from figures available at the end of 1953 it appears that Canada ranks second among the countries of the world in total installed capacity, being exceeded only by the United States; in installation per thousand population, Canada is exceeded only by Norway. Canada is in approximately fifth place in potential power resources but, on the whole, those resources are more readily available to prospective markets than are the water power resources of other countries that outrank Canada, an exception being the United States. In particular might be mentioned the enormous potential resources of the great river systems of Africa and Asia.

* Revised by the Water Resources Branch, Department of Northern Affairs and National Resources, Ottawa.

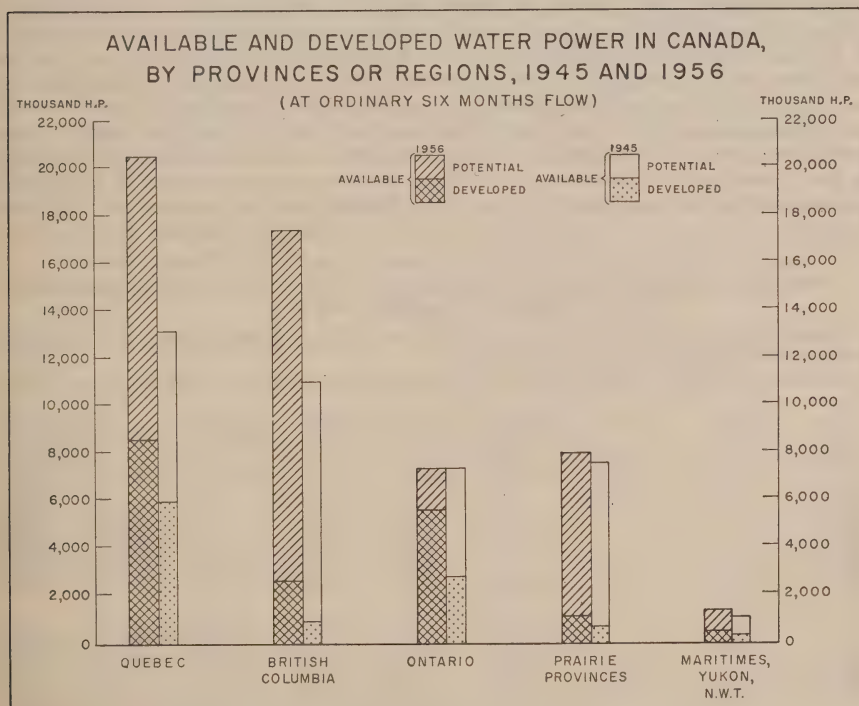
Subsection 1.—Available and Developed Water Power in Canada

Table 1 gives a summary of the water power resources of Canada and their development as at the end of 1956.

1.—Available and Developed Water Power by Province as at Dec. 31, 1956

| Province or Territory | Available 24-Hour Power at 80 p.c. Efficiency | | Turbine Installation ¹ |
|--------------------------------------|--|-----------------------------------|--------------------------------------|
| | At Ordinary Minimum Flow | At Ordinary Six Months Flow | |
| | h.p. | h.p. | h.p. |
| Newfoundland..... | 958,500 | 2,754,000 | 336,750 |
| Prince Edward Island..... | 500 | 3,000 | 1,882 |
| Nova Scotia..... | 25,500 | 156,000 | 179,718 |
| New Brunswick..... | 123,000 | 334,000 | 164,130 |
| Quebec..... | 10,896,000 | 20,445,000 | 8,489,957 |
| Ontario..... | 5,407,000 | 7,261,000 | 6,443,766 |
| Manitoba..... | 3,333,000 | 5,562,000 | 796,900 |
| Saskatchewan..... | 550,000 | 1,120,000 | 109,835 |
| Alberta..... | 508,000 | 1,258,000 | 285,010 |
| British Columbia..... | 10,200,000 | 17,300,000 | 2,514,960 |
| Yukon and Northwest Territories..... | 382,500 | 814,000 | 33,240 |
| Canada..... | 32,384,000 | 57,007,000 | 18,356,148 |

¹ Includes water wheels and hydraulic turbines installed.



The figures given in the first and second columns of Table 1 represent 24-hour power and are based upon rapids, falls and power sites of which the actual drop, or the head of possible concentration, has been measured or at least carefully estimated. Tabulations of potential power in Canada are not complete as many unrecorded rapids and falls of undetermined power capacity exist on rivers and streams throughout the country, particularly in the less explored northern districts. Apart from areas where definite studies have been carried out and the results recorded, no consideration has been given to the power concentrations that are feasible on rivers and streams of gradual gradient where economic heads possibly may be created by the construction of dams. Furthermore, the estimates of power available in different provinces do not include the power potential of major river diversions which have been investigated but not developed. Thus the figures in Table 1 of available power, under the two conditions of stream flow, represent only the minimum water power possibilities of Canada.

The third column of Table 1 gives the total capacity of the water wheels actually installed and should not be placed in direct comparison with those in the first and second columns to deduce the percentage of the available developed water power resources. At developed sites, the water wheel installation averages 30 p.c. greater than the corresponding calculated maximum available power at the same sites. Figures of the table therefore indicate that the *at present* recorded water power resources will permit of a turbine installation of about 74,000,000 h.p. and that the turbine installation at Dec. 31, 1956, represents less than 25 p.c. of recorded water power resources.

The consistent growth of hydraulic turbine capacity is shown in Table 2. The average annual increase from 1900 to 1905 of 56,000 h.p., was stepped up sharply in subsequent years because of improvements in the transmission of electricity and the building of large central electric stations. During the period 1906-22 development proceeded at the fairly uniform rate of 150,000 h.p. per annum but the rate of installation increased sharply in 1923 and continued at about 377,000 h.p. each year from 1923 to 1935. As an aftermath to the economic depression, the rate of installation was low during the years 1936-39 but increased to a high average of 481,000 h.p. per annum during the period 1940-43 to satisfy war requirements. Few developments were undertaken in the later war years or in the immediate postwar period so that only a small amount of new capacity came into operation in the 1944-47 period. However, the effects of the later postwar program of construction are apparent in the large growth in the years 1948-56 when the average rate was about 845,000 h.p. per annum. A continuation of this rate of growth is indicated for some years.

2.—Hydraulic Turbine Horsepower Installed by Province as at Dec. 31, Decennially 1900-50 and Annually 1951-56

NOTE.—Figures for each year 1900-30 are given in the 1939 Year Book, p. 362; for 1931-39 in the 1946 edition, p. 362; and for 1940-49 in the 1954 edition, pp. 556-557.

| Year | Newfoundland | Prince Edward Island | Nova Scotia | New Brunswick | Quebec | Ontario |
|-----------|--------------|----------------------|-------------|---------------|-----------|-----------|
| | h.p. | h.p. | h.p. | h.p. | h.p. | h.p. |
| 1900..... | — | 1,521 | 19,810 | 4,601 | 82,864 | 53,876 |
| 1910..... | — | 1,760 | 31,476 | 11,197 | 334,763 | 490,821 |
| 1920..... | — | 2,233 | 37,623 | 21,976 | 955,090 | 1,057,422 |
| 1930..... | — | 2,439 | 114,224 | 133,681 | 2,718,130 | 2,088,055 |
| 1940..... | — | 2,617 | 139,217 | 133,347 | 4,320,943 | 2,597,595 |
| 1950..... | 262,810 | 2,299 | 150,960 | 133,111 | 6,372,812 | 3,513,840 |
| 1951..... | 279,160 | 2,299 | 150,960 | 132,911 | 6,755,351 | 3,718,505 |
| 1952..... | 292,660 | 2,299 | 162,455 | 135,511 | 7,263,621 | 3,948,466 |
| 1953..... | 311,150 | 1,900 | 162,433 | 164,130 | 7,719,122 | 4,006,688 |
| 1954..... | 323,150 | 1,882 | 170,908 | 164,130 | 7,773,822 | 4,845,486 |
| 1955..... | 329,150 | 1,882 | 177,018 | 164,130 | 7,978,657 | 5,367,866 |
| 1956..... | 336,750 | 1,882 | 179,718 | 164,130 | 8,489,957 | 5,443,766 |

2.—Hydraulic Turbine Horsepower Installed by Province as at Dec. 31, Decennially 1900-50 and Annually 1951-56—concluded

| Year | Manitoba | Saskatchewan | Alberta | British Columbia | Yukon and N.W.T. | Canada |
|-----------|----------|--------------|---------|------------------|------------------|------------|
| | h.p. | h.p. | h.p. | h.p. | h.p. | h.p. |
| 1900..... | 1,000 | — | 280 | 9,366 | 5 | 173,323 |
| 1910..... | 38,800 | 30 | 655 | 64,474 | 3,195 | 977,171 |
| 1920..... | 85,325 | 35 | 33,122 | 309,534 | 13,199 | 2,515,559 |
| 1930..... | 311,925 | 42,035 | 70,532 | 630,792 | 13,199 | 6,125,012 |
| 1940..... | 420,925 | 90,835 | 71,997 | 788,763 | 18,199 | 8,584,438 |
| 1950..... | 595,200 | 111,835 | 107,225 | 1,284,208 | 28,450 | 12,562,750 |
| 1951..... | 596,400 | 111,835 | 207,825 | 1,358,808 | 28,450 | 13,342,504 |
| 1952..... | 716,900 | 111,835 | 207,825 | 1,432,858 | 31,450 | 14,305,880 |
| 1953..... | 716,900 | 109,835 | 207,960 | 1,496,518 | 32,440 | 14,929,074 |
| 1954..... | 756,900 | 109,835 | 258,710 | 2,246,868 | 32,440 | 16,684,131 |
| 1955..... | 796,900 | 109,835 | 284,010 | 2,271,460 | 33,240 | 17,511,148 |
| 1956..... | 796,900 | 109,835 | 285,010 | 2,514,960 | 33,240 | 18,356,148 |

The availability of large amounts of hydro-electric energy has greatly fostered the economical utilization of the natural products from land, forest and mine. Low-cost power is fundamental in meeting the enormous requirements of the pulp and paper industry—Canada's largest industry and one of the world's great industrial enterprises; it also allows economical mining, milling and refining of base and precious metals and facilitates their fabrication into a multitude of manufactured articles. Thus, Canada's outstanding industrial growth in the postwar period has been made in conjunction with accelerated development of water power resources. From hydro-electric plants ranging in capacity from a few hundred to more than 1,000,000 h.p., networks of transmission line carry power to most urban centres and to an increasing number of rural districts. This wide distribution of power has facilitated the decentralization of industry, enabling manufacturing processes to be carried on in many of the smaller centres of population. Economical domestic electrical service also contributes in no small measure to the high standard of living in Canada.

The total of 18,356,148 h.p. of installed capacity of water power plants in 1956 produced about 86,680,000,000 kwh. of energy. Assuming a working year of 275 eight-hour days and that the working capacity of a manual worker equals 1/10 h.p., the total energy produced from water power in 1956 represents the equivalent of the output of about 525,000,000 labourers.

Table 3 shows, under three classifications, the purposes for which the developed water power is primarily utilized.

3.—Developed Water Power by Province and Industry as at Dec. 31, 1956

| Province or Territory | Turbine Installation | | | Total ⁴ |
|--|---|--------------------------------------|----------------------------------|--------------------|
| | In Central Electric Stations ¹ | In Pulp and Paper Mills ² | In Other Industries ³ | |
| | h.p. | h.p. | h.p. | h.p. |
| Newfoundland..... | 140,450 | 182,300 | 14,000 | 336,750 |
| Prince Edward Island..... | 369 | — | 1,513 | 1,882 |
| Nova Scotia..... | 164,705 | 10,337 | 4,676 | 179,718 |
| New Brunswick..... | 134,700 | 23,872 | 5,558 | 164,130 |
| Quebec..... | 8,084,153 | 350,344 | 55,460 | 8,489,957 |
| Ontario..... | 5,139,417 | 223,507 | 80,842 | 5,443,766 |
| Manitoba..... | 795,000 | — | 1,900 | 796,900 |
| Saskatchewan..... | 109,800 | — | 35 | 109,835 |
| Alberta..... | 282,950 | — | 2,060 | 285,010 |
| British Columbia..... | 1,163,340 | 141,270 | 1,210,350 | 2,514,960 |
| Yukon and Northwest Territories..... | 13,540 | — | 19,700 | 33,240 |
| Canada..... | 16,028,424 | 931,630 | 1,396,094 | 18,356,148 |
| Percentages of total installation..... | 87.3 | 5.1 | 7.6 | 100.0 |

¹ Includes only hydro-electric stations that develop power for sale.

² Includes only water power actually developed by pulp and paper companies.

than central electric stations and pulp and paper companies.

⁴ Includes water wheels and hydraulic turbines installed.

Central electric station classification totalling 16,028,424 h.p. represents 87 p.c. of the total developed water power as at Dec. 31, 1956. Central hydro-electric stations produced 96 p.c. of all electricity sold in or exported from Canada during the year. The pulp and paper turbine installation total of 931,630 h.p. includes only water power actually developed and directly used by pulp and paper companies. In addition, this industry is the greatest purchaser of central electric station power, buying nearly 15 p.c. of all power sold for industrial purposes in 1956. Part of the purchased power is classed as secondary, being used for steam generation by electric boilers.

The 'other industries' group developed 1,396,094 h.p. solely for its own use. These diversified industries also provide a broad market for the power sold by the central electric stations, as the amount of power produced by these industries represents only a part of the power they use.

The figure of total hydraulic installation in Canada (18,356,148 h.p.) is the cumulative total of all existing installations of water wheels and hydraulic turbines irrespective of whether or not the equipment has been in use during the year. It has been adjusted to Dec. 31, 1956, by the inclusion of new installations completed during the year and by deletion of those old units which were dismantled.

Subsection 2.—Water Power Developments in the Provinces and Territories, 1955 and 1956

During 1955 and 1956, the appreciable amounts of 827,000 h.p. and 845,000 h.p., respectively, of new hydro-electric capacity were installed in Canada. Although considerably lower than the record amount of 1,758,000 h.p. which was brought into service during 1954, these quantities represent closely the average annual rate of development since 1947. Construction of hydro-electric plants was accelerating during 1956 with about 3,500,000 h.p. of new capacity expected to come into operation during 1957 and 1958 and an additional 4,500,000 h.p. under preliminary construction or planning for later years. Construction was active also in the field of power distribution and in the building of thermal-electric plants. Progress in each province and in Yukon Territory, pertaining principally to hydro-electric developments, but also covering thermal developments, is outlined below.

Atlantic Provinces.—In *Newfoundland* during 1955 the Union Electric Light and Power Company Limited completed the installation of a 2,000-h.p. turbine on the Trinity River near Trinity with the addition of a second similar unit under active prospect. The Company extended transmission facilities by completing 81 miles of 46-kv. line in 1955 and 1956; construction of 20 miles of 13.8-kv. line was started. By a replacement of the turbine runners, the Anglo-Newfoundland Development Company Limited increased from 60,000 h.p. to 64,000 h.p. the capacity of its plant at Grand Falls on the Exploits River. The United Towns Electric Company Limited completed, in December 1956, the installation of a single 5,600-h.p. unit on New Chelsea Brook at New Chelsea. Extensions to its transmission lines included the completion of 33 miles of 66-kv. line and 31 miles of 13.8-kv. line during 1955 and 1956. The Newfoundland Light and Power Company Limited has under active prospect the construction of two plants on Rattling Brook near Norris Arm, the first to develop an estimated 13,000 h.p. and the second about 31,000 h.p. On the Corner Brook River at Corner Brook, the Bowater Power Company Limited is constructing a development of 12,000 h.p. in two units for operation in 1957. The Maritime Mining Corporation expects to complete, early in 1957, a 500-h.p. plant on Venams Brook at Green Bay and, at a later date, an 850-h.p. plant at Snooks Arm, Green Bay.

In the field of thermal plant construction, the Newfoundland Light and Power Company completed, in 1956, the installation of the initial unit of 10,000 kw. in its St. John's steam plant with a second unit of 20,000 kw. under active prospect for operation in 1959; the Bowater Power Company Limited completed the construction of a 6,600-kw. steam plant in one unit at Corner Brook for use as a stand-by.

In *Nova Scotia*, the 1955 activity of the Nova Scotia Power Commission brought about the completion of a 6,240-h.p. development on the Mersey River at Lower Great Brook, comprising two 3,120-h.p. units. A second project, scheduled for completion in 1957, involves a single 5,300-h.p. turbine on the Bear River at Bear River and investigations are proceeding on the proposed Wreck Cove development on Cape Breton Island. During 1955 and 1956, the Commission extended transmission lines by 103 miles of main line, mostly of 69-kv. capacity, and 100 miles of rural distribution line, with 120 miles of transmission lines of various capacities under active construction at the end of 1956. The Nova Scotia Light and Power Company has under active prospect the replacement of two units of 1,150 h.p. each by a single 5,000-h.p. unit at its Hemlock Falls plant on the Avon River, with change-over expected in 1958. Also under study is the development of an estimated 4,000 h.p. on the Nictaux River at Alpena. New transmission line construction included 67 miles of 69-kv. line and 17 miles of 23-kv. line.

In 1955 at Trenton in Pictou County, the Nova Scotia Power Commission increased to 40,000 kw. the capacity of its steam plant by the addition of a 20,000-kw. unit; a fourth similar unit is to be added in 1959. The Nova Scotia Light and Power Company Limited completed a fifth unit of 27,500 kw. at its Halifax steam plant; construction is progressing towards the completion of a 45,000-kw. unit in 1957 and another in 1959. At Glace Bay the Seaboard Power Corporation Limited installed a new steam unit of 18,750 kw. in 1955, with another scheduled for operation in 1958.

In *New Brunswick*, the construction of the Beechwood development on the St. John River by the New Brunswick Electric Power Commission was continued with two 45,000-h.p. units scheduled for completion in 1957 and with provision for a third similar unit. At other potential sites, investigations were under way during 1956 on the St. John, Tobique and Napisquit Rivers and on the Passamaquoddy Bay tidal project. The Commission completed 200 miles of 69-kv. transmission line and 245 miles of rural distribution line in 1955 and 1956. At the end of 1956, 147 miles of 138-kv. main line were under construction.

In 1955, Edmundston installed an additional diesel unit of 3,000 kw. to its thermal station and in 1956 the New Brunswick Electric Power Commission added a new unit of 22,500 kw. to its steam plant in Chatham.

Quebec.—During 1955 and 1956 new hydro-electric capacities amounting to 240,000 h.p. and 514,300 h.p., respectively, were brought into operation in Quebec. The addition for 1956 represented 61 p.c. of Canada's total development for that year.

The most notable progress was made by the Quebec Hydro-Electric Commission which placed in operation at its Bersimis No. 1 plant at Lac Casse during 1956 and 1957 three 150,000-h.p. units. Three similar units are scheduled for operation in 1959 and two others in 1960. At the Bersimis No. 2 site, preliminary construction was continued toward an ultimate installation of 855,000 h.p. in five 171,000-h.p. units. At the Beauharnois development on the St. Lawrence River dredging of the intake canal was continued and preliminary construction started on the third and final section of the powerhouse where five new 67,000-h.p. units are scheduled for operation in 1959 and one in 1960. The ultimate capacity of the whole development is expected to reach 2,235,000 h.p. At the Commission's Rapid II plant on the upper Ottawa River the third 16,000-h.p. unit was completed in 1956, and provision made for a fourth unit. Work was well advanced on the construction of a storage dam at the outlet of Lake Ste. Anne, on a tributary of the Manicouagan River, to allow a higher firm output from the plant of the Manicouagan Power Company where additional capacity is being installed. Studies and surveys are also being carried out by the Commission towards the development of the Lachine Rapids on the St. Lawrence River. In the transmission field, 146 miles of 154-kv. line were completed in 1955 to serve the Chibougamau district; in 1956, a double-circuit 450-mile 300-kv. line from Labrieville to Quebec and Montreal was completed and work was begun on three additional 300-kv. lines—Labrieville to Quebec City, Labrieville to Hauterive and a tie between the Bersimis plants Nos. 1 and 2.

During 1955, the Shawinigan Water and Power Company brought into operation a total of 158,500 h.p. by installing a new unit in each of three plants on the St. Maurice River comprising 44,500 h.p. at Rapid Blanc, 65,000 h.p. at La Trenche and 49,000 h.p. at La Tuque. In addition, construction was started in 1956 on a new plant on the St. Maurice River at Rapid Beaumont to develop 333,000 h.p. in six units, with initial operation scheduled for 1959 and completion in 1960. During 1955 and 1956 the Company extended its transmission line network by completing 160 miles of line at 220 kv., 79 miles at 110 kv. and 22 miles at 60 kv.

The Gatineau Power Company completed the installation of a 47,000-h.p. generating unit at Pagan Falls on the Gatineau River during 1955 and extended rural transmission services by 82 miles in 1955 and 68 miles in 1956.

The Northern Quebec Power Company Limited completed in 1955 the installation of an additional 34,500-h.p. unit in its Quinze Rapids plant on the upper Ottawa River, bringing the total capacity to 119,000 h.p. Extension to the McCormick development of the Manicouagan Power Company at First Falls on the Manicouagan River will add 180,000 h.p. in three units, the first scheduled for operation in 1957 and the other two in 1958. In 1956 the Aluminum Company of Canada began the construction of a hydro-electric development on the Peribonca River at Chute des Passes to comprise five 200,000-h.p. units. The turbine, which will be the largest in Canada, will receive water from the Passe Dangereuse reservoir by means of a seven-mile tunnel. Operation will be started in 1959 and development completed in 1960. In 1956, Price Brothers Company Limited commenced a 78,000-h.p. single-unit development on the Shipshaw River below Wilson Falls for operation in 1957 which will replace the existing 10,100-h.p. plant at Murdock Falls.

The Eastern Smelting and Refining Company Limited is constructing, on the Chicoutimi River, a development of 42,000 h.p. in one unit scheduled for operation in 1957. In 1956, the town of Parent, Chapleau County, completed the installation of a 1,300-h.p. unit at its Bazin River plant with provision for a second similar unit. The James MacLaren Company plans initial construction in 1957 of a new development on the Lièvre River at Dufferin Falls, to comprise 50,000 h.p. in two 25,000-h.p. units, for operation in December 1958.

Ontario.—The Hydro-Electric Power Commission of Ontario continued the rapid expansion of generating capacity in several major projects during 1955 and 1956. In the Sir Adam Beck-Niagara Generating Station No. 2, five 105,000-h.p. units were added during 1955, raising the total capacity to 1,260,000 h.p. Four additional units were under construction during 1956, one scheduled for operation late in 1957 and three in 1958. The eventual capacity of No. 2 development will be 1,680,000 h.p. Six reversible pump-turbines are being installed at the pumped storage generating station associated with the development. Water will be pumped from the power canal into a 700-acre reservoir with a usable capacity of 16,000 acre-feet. When acting as turbines, using water returning from the reservoir to the canal, each unit will have a capacity of 47,000 h.p. From early 1957 the units are expected to be completed at intervals of about two months.

The Commission continued construction of the control dam which forms part of the Niagara River remedial works being carried out jointly by Canada and the United States. The dam, which is located upstream from the Cascades, will extend 1,550 feet from the Canadian shore and will consist of 13 individually operated bascule-type gates mounted on concrete piers. At the end of 1956 nine gates were in operation.

Rapid progress was made on the St. Lawrence River Power Project, the Canadian portion of which is being constructed by the Commission. By the end of 1956 the foundation for the powerhouse structure at the foot of Barnhart Island was completed and concrete was being placed for the draft-tubes of the first six units. A diversion of the Cornwall canal near the powerhouse site was effected for service at the start of navigation in 1957. The relocation of the village of Iroquois was almost finished; about 220 houses were moved during 1956 from areas to be flooded. Thirty-five miles of relocated highway were

virtually completed as well as the laying of about 40 miles of double railway track. Channel excavation in the vicinity of Chimney Island and Galop Island was under way and excavation for the canal at Iroquois Point started. The Canadian portion of the powerhouse will contain 16 units totalling 1,200,000 h.p. capacity; the first units will be in operation in 1958 and the project completed in 1960.

Progress was made by the Commission on the construction of new hydro-electric plants in northwestern Ontario to meet growing demand for power by mining and pulp and paper companies. On the English River at Manitou Falls, the installation of four 18,500-h.p. units was completed in 1956, with provision for a fifth unit in 1958. On the Winnipeg River at Whitedog Falls, construction was begun in 1955 for the development of 81,000 h.p. scheduled for completion in 1958. At Caribou Falls, located on the English River near its junction with the Winnipeg River, construction began in 1956 on three units totalling 102,000 h.p. to be completed in 1958. A 19,000-h.p. unit will be added to the Alexander Falls plant on the Nipigon River and one of 25,000 h.p. at Cameron Falls. To increase the output of stations on the English River, and incidentally those on the Winnipeg River in Manitoba, the Commission is completing a scheme of diverting water from the Albany River at Lake St. Joseph *via* the Root River into Lac Seul. This work is being planned in close liaison with the Manitoba Hydro-Electric Board.

In addition to hydro-electric development, the Commission, with the co-operation of Atomic Energy of Canada Limited and Canadian General Electric Company Limited, is proceeding with the construction of a 20,000-kw. nuclear-power experimental plant for operation in 1959 at a site near its Des Joachim's generating station on the Ottawa River. At its Richard L. Hearn steam plant in Toronto, the addition of a 200,000-kw. unit has been authorized for operation in 1958 with three similar units to be added in 1959, 1960 and 1961, respectively, to raise the total capacity to 1,200,000 kw.

Extensions to the Commission's transmission facilities in 1955 and 1956 included 58 circuit miles at 230 kv., 516 circuit miles at 115 kv., 204 circuit miles at 13-44 kv., and 1,954 circuit miles of rural distribution line.

Apart from activities of the Commission, the Ontario-Minnesota Pulp and Paper Company Limited modernized its Rainy River plant by dismantling one unit and increasing the capacity of each of the remaining eight units to 2,000 h.p. by runner replacement. This resulted in a capacity increase of 650 h.p. The Great Lakes Power Company is installing in its Upper Falls plant on the Montreal River for operation in 1957 a new unit comprising a 30,000-h.p. turbine driving a 25,000-kv. generator. The dam for this development was raised by 33 feet and the resulting increase in head increased the combined capacity of the two existing units from 23,400 h.p. to 25,300 h.p. Construction of a new plant on the Montreal River at Centre Falls is expected to be under way in 1957 with one 28,000-h.p. unit scheduled for completion in 1958. The Gananoque Electric Light and Water Supply Company is installing in its Jones Falls plant on the Rideau River an additional 1,500-h.p. unit to be completed in 1957.

Prairie Provinces.—In *Manitoba* during 1955, the Manitoba Hydro-Electric Board installed the last four units of 10,000 h.p. each in its McArthur Falls plant on the Winnipeg River bringing to completion the development of the resources of that river. On the Saskatchewan River near Lake Winnipeg, preliminary surveys and ground tests for the Grand Rapids project were completed in 1955 for the development of up to 460,000 h.p. at peak load. However, further investigations at this site have been tentatively discontinued in favour of the proposed Grand Rapids development on the Nelson River where construction is expected to begin in 1957 on four or five 37,500-h.p. units, with provision for additional units when required. Sherritt Gordon Mines, Limited is constructing, for operation in 1957, a second unit of 7,000 h.p. on the Laurie River.

In addition to hydro-electric activities, the Manitoba Hydro-Electric Board continued with the construction of a steam generating station at Brandon where four 30,000-kw. generators will be installed, two for operation in 1957 and two in 1958. The Board also plans to construct a steam plant at East Selkirk with an initial installation of two 66,000-kw. units; completion is scheduled for late 1959.

In the field of electrical distribution, The Manitoba Power Commission, which is the sole distributor of power in the Province outside of the city of Winnipeg, extended its transmission network during 1955 and 1956 by 336 circuit miles of main line and 513 miles of rural line. The inter-connection of the electrical systems of southern Manitoba and northwestern Ontario was effected in 1956 to permit the transfer of power between the two systems.

In *Saskatchewan*, the Churchill River Power Company is considering the extension of its Island Falls hydro-electric plant on the Churchill River by the addition of a 19,000-h.p. turbine to act as a stand-by unit. The Saskatchewan Power Corporation, whose transmission network covers a large part of the southern portion of the Province depends exclusively on thermal engines for power production. In 1955 a new station, consisting of two gas-engine generating units at 3,000 kw. each, was built at Kindersley to replace the steam plant at Battleford; a similar unit added in 1956 brought the total plant capacity to 9,000 kw. At the Corporation's Swift Current plant, a gas-engine generating unit of 3,000 kw. was installed in 1955 and a 6,000-kw. unit in 1956; an additional 3,000-kw. unit will be installed in 1957. At the Saskatoon steam plant, a 33,000-kw. unit was added in 1956 and a 30,000-kw. unit will be added to the Estevan plant in 1957. Main transmission line extensions included the completion of 516 miles of line in 1955 and 1956 and service was extended to an additional 16,000 farms.

In *Alberta*, Calgary Power Limited continued the expansion of several of its hydro-electric developments in the Bow River basin during 1955 and 1956. Additional units were installed in existing plants including an 18,400-h.p. turbine driving a 15,000 kva. generator at the Pocaterra plant and a 6,900-h.p. turbine at the Interlake plant. The installation of an additional 23,000-h.p. unit at the Cascades plant neared completion and investigations continued towards doubling the combined capacity of 85,000 h.p. at the Spray and Rundle plants. Possible developments on the Brazee River and on the North Saskatchewan River received preliminary investigation. In the field of thermal development, the Company completed the installation of the initial 66,000-kw. steam turbine at its Wabamun plant, a second similar unit to be added for operation in 1958 and a third unit of 150,000 kw. for operation in 1960. Extension to the Company's transmission facilities included 176 circuit miles of 132-kv. line, 65 circuit miles at 66 kv. and, 532 circuit miles at 22 kv.

Northland Utilities Limited completed in 1955 the installation of a Kaplan turbine of 1,000 h.p. to increase the capacity of its Astoria River plant near Jasper to 1,800 h.p. A 3,000-kw. unit is to be added in 1957 to its Fairview steam turbine plant which is operated jointly with Canadian Utilities Limited. In 1955, Canadian Utilities Limited installed a new 2,500-kw. gas engine in its Grand Prairie plant and an additional 500-kw. diesel unit at Fort St. John. Elsewhere, the Company completed in 1956 the construction of an initial unit of 30,000 kw. in its new Forestburg plant and has in active prospect the addition of a 32,000-kw. thermal unit for 1961 operation in its Battle River plant. The Company increased its transmission facilities in 1955 by 30 miles of 138-kv. line, 70 miles of 69-kv. line, 62 miles of 23-kv. line, and 1,220 miles of rural distribution line. Extensions during 1956 included 10 miles of 6.9-12-kv. line, 78 miles of 22-kv. line, 53 miles of 66-kv. line and 48 miles of 138-kv. line. A number of cities in Alberta are expanding their thermal plant facilities. Medicine Hat is planning the addition of a steam generating unit of 10,000 or 20,000 kw. for 1959 operation, Lethbridge is adding a 10,000-kw. gas turbine for 1957 operation and Edmonton is planning the addition of two 30,000-kw. gas turbines for operation in 1957 and 1958.

British Columbia.—The British Columbia Power Commission was very active in hydro-electric development particularly on Vancouver Island. During 1955, the re-development of the Puntledge River near Courtney was completed with the installation

of a 35,000-h.p. turbine. A 5,500-h.p. development on the Spillimacheen River was completed, including two reconditioned 1,250-h.p. units and a new 3,000-h.p. unit. At Ladore Falls on the Campbell River, the first of two 35,000-h.p. units was installed, with the second scheduled for 1957. Also under construction was an initial unit of 42,000 h.p. at the outlet of Upper Campbell Lake to be completed in 1957 with provision for two similar units at a later date. On the mainland, the Commission continued the installation at the Whatshan River plant, of a third unit comprising a 16,500-h.p. reaction-type turbine scheduled for operation in 1957. In 1956, construction started on the Ash River near Alberni where the development of 35,000 h.p. under a head of 735 feet is to be completed in the winter of 1958-59. In the field of thermal development, the Commission in 1955 increased the capacity of its diesel plants at Vanderhoof and Dawson Creek by 1,000 kw. each, and early in 1957 new gas diesel generating units are expected to be in operation at Prince George, Quesnel and Dawson Creek raising the capacities of these plants to 16,270 h.p., 12,060 h.p. and 14,700 h.p. respectively. A 100,000-h.p. gas turbine generating station presently under way at Chemainus and scheduled for operation late in 1957 will comprise initially two 19,750-kw. units and subsequently two regenerative-cycle, two-shaft turbo-generator units at 18,000 kw. each. In 1955 and 1956 the Commission completed a 33-kv. transmission line from Spillimacheen to Golden, a double-circuit 138-kv. line from Ladore Falls to the John Hart station, and a 60-kv. line between Kamloops and Savona.

The British Columbia Electric Company made active progress towards the development of an additional 408,500 h.p. at its Bridge River power plant system. Part of this capacity was brought into operation in 1956 with the completion of 58,500 h.p. in one unit at the Seton Creek plant near Lillooet. At the La Joie dam, construction was under way with one 30,000-h.p. unit scheduled for completion in the autumn of 1957. Work started on the Bridge River No. 2 development to comprise four 80,000-h.p. units, three scheduled for operation in 1959 and one for 1960. Work proceeded on the Cheakamus development of 190,000 h.p. in two units, scheduled for service in late 1957. At the 4,000-h.p. development at Clowhom Falls—which, with the Sechelt peninsular system, was purchased from the British Columbia Power Commission in May 1956—work is under way for the replacement of the present plant by a single 40,000-h.p. unit for operation in the autumn of 1957. This project will include a new dam to give a maximum head of 174 feet and to provide a larger storage reservoir. A gas turbine plant capable of operating on either oil or natural gas will be added to the system in 1958; it will comprise four 33,500-h.p. turbines, each driving a 30,000-kva. generator. Expansion of the Company's transmission lines included the completion of 25 miles of overhead line and 19.6 miles of submarine cable which together form a 132-kv. connection between Vancouver Island and the mainland. The erection of a 97-mile, 132-kv. line was completed in 1956 to supply the Powell River and Sechelt areas; part of this line forms one of the longest overhead crossings in existence where it spans Jervis Inlet for a total distance of 10,100 feet. The Company is proceeding with a second transmission line at 345 kv. between Bridge River and Vancouver to be completed in 1957.

The Aluminum Company of Canada installed a fourth 150,000-h.p. unit in its Kemano plant during 1956; a fifth similar unit will be ready for operation in mid-1957 and another in prospect for operation late in 1958 will bring the capacity of the plant to 900,000 h.p.

The Powell River Company Limited, by diverting water from the upper Theodosia River into Powell Lake, increased the firm output of its plant by about 2,000 kw. The Northern British Columbia Power Company rebuilt its Shawatlans plant comprising a single unit of 2,140 h.p. Northwest Power Industries Limited continued with surveys on the Nass River.

Yukon Territory.—In 1955, the Yukon Hydro Company Limited completed a new development on McIntyre Creek near Whitehorse comprising an 800-h.p. turbine driving a 750-kw. generator. The Northern Canada Power Commission started work in October 1956 on its development at Whitehorse Rapids on the Yukon River, about 1.5 miles upstream from Whitehorse. Two 7,500-h.p. units will be completed in October 1958, and a third provided for. The Commission is also adding a 3,000-h.p. unit to its Mayo River plant which will increase capacity at this site to 6,000 h.p.

Northwest Power Industries Limited has all but completed surveys on the proposed Yukon-Atlin-Taku project, which entails an initial 880,000-h.p. development at powerhouse No. 1 and a possible eventual development of nearly 5,000,000 h.p.

Section 2.—The Central Electric Station Industry

Central electric stations are companies, municipalities or individuals selling or distributing electric energy whether generated by themselves or purchased for resale. Stations are divided into two classes according to ownership, viz.: (1) private—those privately owned and operated by companies or individuals, and (2) public—those owned and operated by municipalities or governments.

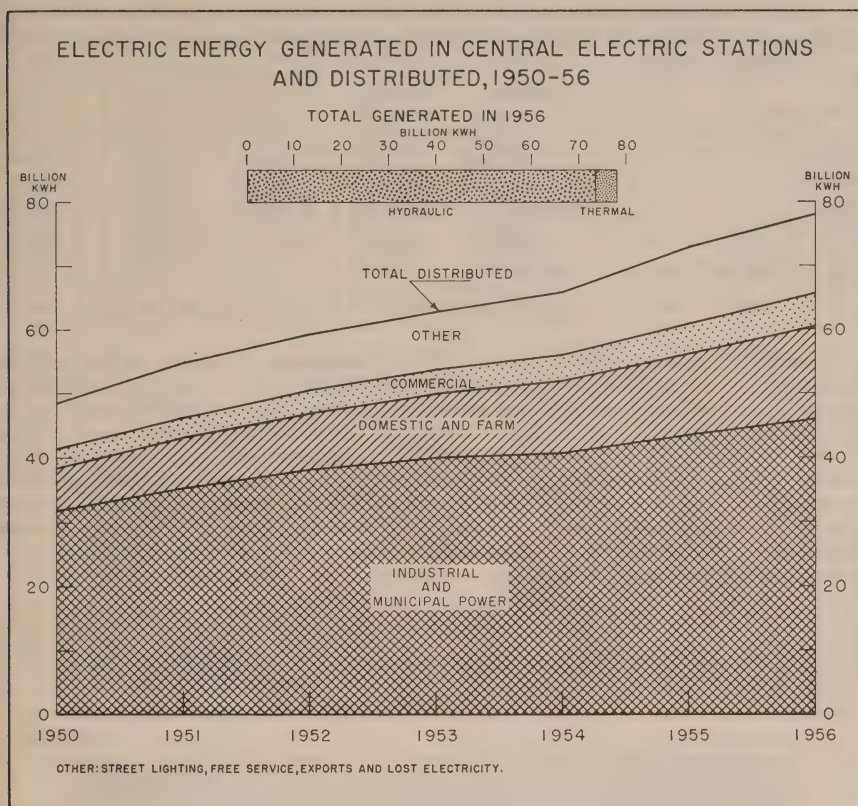
4.—Electric Energy Generated by Type of Station 1940-55 and by Province 1954 and 1955

| Year, Province or Territory | Generated by— | | Total | Year, Province or Territory | Generated by— | | Total |
|--------------------------------|-------------------|------------------|-------------------|--------------------------------|-------------------|------------------|-------------------|
| | Water Power | Thermal Power | | | Water Power | Thermal Power | |
| | '000 kwh. | '000 kwh. | '000 kwh. | | '000 kwh. | '000 kwh. | '000 kwh. |
| 1940..... | 29,524,248 | 585,035 | 30,109,283 | 1948..... | 41,070,095 | 1,319,586 | 42,389,681 |
| 1941..... | 32,628,930 | 688,733 | 33,317,663 | 1949..... | 42,779,199 | 1,639,374 | 44,418,573 |
| 1942..... | 36,582,953 | 772,226 | 37,355,179 | 1950..... | 46,624,218 | 1,869,500 | 48,493,718 |
| 1943..... | 39,660,312 | 819,281 | 40,479,593 | 1951..... | 52,955,002 | 1,896,842 | 54,851,844 |
| 1944..... | 39,553,352 | 1,045,427 | 40,598,779 | 1952..... | 57,023,530 | 2,385,668 | 59,409,198 |
| 1945..... | 39,131,020 | 999,034 | 40,130,054 | 1953..... | 58,926,462 | 3,934,465 | 62,860,927 |
| 1946..... | 40,692,395 | 1,044,592 | 41,736,987 | 1954..... | 62,572,316 | 3,364,124 | 65,936,440 |
| 1947..... | 42,273,167 | 1,151,632 | 43,424,799 | 1955..... | 69,478,003 | 3,432,589 | 72,910,592 |
| 1954 | | | | 1955 | | | |
| Nfld..... | 274,213 | 5,564 | 279,777 | Nfld..... | 704,797 | 6,658 | 711,455 |
| P.E.I..... | 645 | 41,869 | 42,514 | P.E.I..... | 545 | 45,885 | 46,430 |
| N.S..... | 528,491 | 592,017 | 1,120,508 | N.S..... | 500,859 | 704,545 | 1,205,404 |
| N.B..... | 664,135 | 235,840 | 899,975 | N.B..... | 517,098 | 355,758 | 872,856 |
| Que..... | 34,080,730 | 17,504 | 34,098,234 | Que..... | 35,330,565 | 29,571 | 35,360,136 |
| Ont..... | 19,162,186 | 980,546 | 20,142,732 | Ont..... | 23,914,057 | 436,053 | 24,350,110 |
| Man..... | 3,004,268 | 6,455 | 3,010,723 | Man..... | 3,099,880 | 4,056 | 3,103,936 |
| Sask..... | 559,300 | 732,979 | 1,292,279 | Sask..... | 569,401 | 912,420 | 1,481,821 |
| Alta..... | 857,150 | 641,335 | 1,498,485 | Alta..... | 935,943 | 793,011 | 1,728,954 |
| B.C..... | 3,377,787 | 108,123 | 3,485,910 | B.C..... | 3,835,417 | 141,373 | 3,976,790 |
| Yukon and N.W.T..... | 63,411 | 1,892 | 65,303 | Yukon and N.W.T..... | 69,441 | 3,259 | 72,700 |
| Canada, 1954.... | 62,572,316 | 3,364,124 | 65,936,440 | Canada, 1955.... | 69,478,003 | 3,432,589 | 72,910,592 |

Subsection 1.—Statistics of Central Electric Stations*

The growth of the central electric station industry has been practically continuous since 1919 when statistics of kilowatt hours generated were first made available. Horsepower installed increased almost continuously even during the depression years mainly because large power projects planned before the depression were in process of construction. Expansion since the end of the War has been spectacular and continuing; installed capacity of the industry in hydro and thermal units is now well over one horsepower for every Canadian.

* Revised in the Public Finance and Transportation Division, Dominion Bureau of Statistics.



5.—Summary Statistics of Central Electric Stations 1946-55

| Year | Generating Power Plants | Revenue from Sale of Power ¹ | Power Equipment | Kilowatt Hours Generated | Customers | Persons Employed | Salaries and Wages |
|-------------------------|-------------------------|---|-----------------|--------------------------|------------------------|---------------------|--------------------|
| | No. | \$'000 | h.p. | '000 | No. | No. | \$ |
| 1946..... | 600 | 226,096 | 10,001,712 | 41,736,987 | 2,476,830 | 24,577 | 46,422,998 |
| 1947..... | 607 | 243,706 | 9,786,087 | 43,424,799 | 2,643,327 | 26,704 | 54,120,717 |
| 1948..... | 635 | 257,377 | 10,219,596 | 42,389,681 | 2,822,027 | 29,349 | 61,974,958 |
| 1949 ² | 650 | 280,312 | 10,883,276 | 44,418,573 | 3,076,369 | 31,746 | 70,551,730 |
| 1950..... | 665 | 323,833 | 11,976,241 | 48,493,718 | 3,269,824 | 46,193 | 71,773,595 |
| 1951..... | 647 | 374,643 | 13,030,592 | 54,851,844 | 3,439,750 | 47,467 | 89,130,327 |
| 1952..... | 562 | 415,494 | 14,221,806 | 59,409,198 | 3,620,595 | 47,238 | 102,165,917 |
| 1953..... | 524 | 469,047 | 15,661,037 | 62,860,927 | 3,817,455 | 48,169 | 115,652,039 |
| 1954..... | .. | 505,526 | 16,721,816 | 65,936,440 | 4,001,626 | 33,762 ³ | 120,322,349 |
| 1955..... | .. | 548,657 ⁴ | 17,985,620 | 72,910,592 | 4,224,901 ⁵ | 35,178 ³ | 128,370,092 |

¹ Excludes duplication.² Newfoundland included from 1949.³ Excludes employees engaged on

new construction.

⁴ Not comparable with previous years; figure excludes revenue from exports to U.S.A. and includes revenue from interprovincial transfers. The total comparable with other years is \$560,383,000⁵ Not comparable with previous years; only ultimate customers now included. Including customers who purchased for resale, the total is 4,225,558.

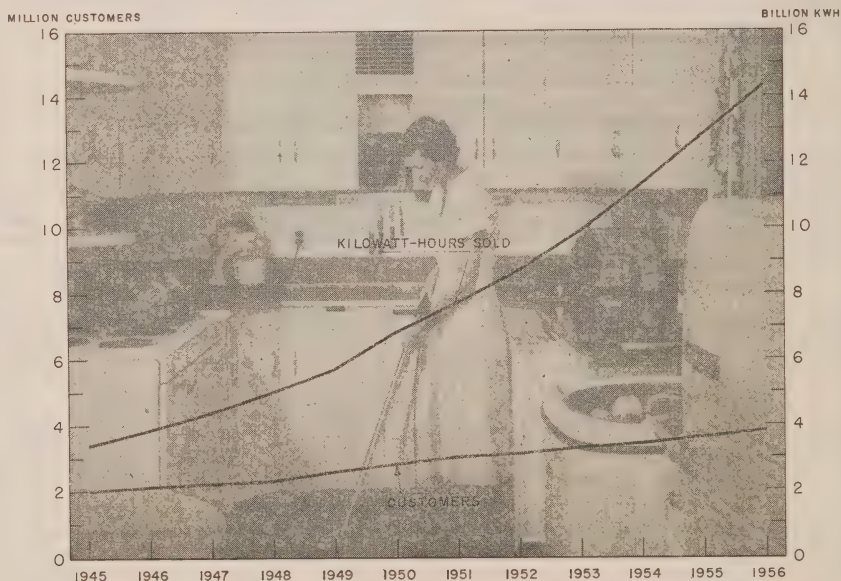
6.—Electric Energy Generated in Central Electric Stations by Province 1951-55

| Province or Territory | 1951 | 1952 | 1953 | 1954 | 1955 |
|--------------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | '000 kwh. | '000 kwh. | '000 kwh. | '000 kwh. | '000 kwh. |
| Newfoundland..... | 172,436 | 233,291 | 251,427 | 279,777 | 711,455 |
| Prince Edward Island..... | 32,768 | 35,879 | 39,439 | 42,514 | 46,430 |
| Nova Scotia..... | 887,908 | 964,771 | 1,025,903 | 1,120,508 | 1,205,404 |
| New Brunswick..... | 756,087 | 752,887 | 746,304 | 899,975 | 872,856 |
| Quebec..... | 29,690,086 | 32,112,878 | 33,793,797 | 34,098,234 | 35,360,136 |
| Ontario..... | 15,985,056 | 17,297,526 | 18,268,311 | 20,142,732 | 24,350,110 |
| Manitoba..... | 2,564,537 | 2,699,246 | 2,753,939 | 3,010,723 | 3,103,936 |
| Saskatchewan..... | 978,773 | 1,079,309 | 1,174,131 | 1,292,279 | 1,481,821 |
| Alberta..... | 996,945 | 1,174,002 | 1,339,927 | 1,498,485 | 1,728,954 |
| British Columbia..... | 2,723,454 | 2,987,261 | 3,381,624 | 3,485,910 | 3,976,790 |
| Yukon and Northwest Territories..... | 63,794 | 72,148 | 86,125 | 65,303 | 72,700 |
| Canada..... | 54,851,844 | 59,409,198 | 62,860,927 | 65,936,440 | 72,910,592 |

Domestic Service.—Power used by domestic customers or for household purposes amounted to 17.5 p.c. of the total production of central electric stations. Details of the number of domestic customers served, the kilowatt hours delivered and the costs to the customers, exclusive of direct federal, provincial and municipal taxes on such service, are shown in Table 7. The average consumption per customer and average cost per kilowatt hour vary considerably as between municipalities and also as between provinces but the differences in the average bills are smaller. The availability of low-cost power to domestic users contributes greatly to the high standard of living in Canada. Average consumption per customer has almost doubled since 1946 and costs per kilowatt hour have remained approximately the same.

ELECTRICITY CONSUMED FROM CENTRAL STATIONS BY FARMS AND HOMES

1945-56



7.—Summary Statistics of Domestic Consumption of Electricity 1946-55

| Year | Customers | Consumption | Average Consumption per Customer | Average Charge per Annum | Average Charge per kwh. |
|-----------|-----------|-------------|----------------------------------|--------------------------|-------------------------|
| | No. | '000 kwh. | kwh. | \$ | cts. |
| 1946..... | 2,104,549 | 3,881,677 | 1,844 | 29.85 | 1.62 |
| 1947..... | 2,246,253 | 4,383,222 | 1,951 | 31.28 | 1.60 |
| 1948..... | 2,398,847 | 4,984,280 | 2,078 | 33.32 | 1.60 |
| 1949..... | 2,619,831 | 5,678,847 | 2,168 | 34.47 | 1.59 |
| 1950..... | 2,797,378 | 6,750,303 | 2,413 | 38.97 | 1.61 |
| 1951..... | 2,951,988 | 7,726,114 | 2,617 | 43.25 | 1.65 |
| 1952..... | 3,112,306 | 8,741,182 | 2,809 | 46.48 | 1.65 |
| 1953..... | 3,283,486 | 9,877,727 | 3,008 | 51.25 | 1.70 |
| 1954..... | 3,448,980 | 11,280,513 | 3,271 | 55.29 | 1.69 |
| 1955..... | 3,645,313 | 12,759,657 | 3,500 | 58.03 | 1.66 |

Farm Service.—Table 8 shows the number of farm customers, the average annual consumption, average annual revenue and the average revenue per kilowatt hour sold to these customers in each province in 1954 and 1955. Rural electrification has made considerable progress during the past decade. Farm customers added during 1955 totalled 30,560 and the national total at 441,694 increased by 7 p.c. over 1954. It is estimated that about 74 p.c. of the farms in Canada now enjoy the benefits of power line service. In addition many other farms generate their own electricity by the use of engines, wind-mills, etc.

8.—Farm Service Furnished by Central Electric Stations, by Province 1954 and 1955

| Year and Province or Territory | Customers | Consumption of Electric Energy | | Revenue Received | | |
|-----------------------------------|----------------|--------------------------------|---------------------------|-------------------|----------------------|------------------|
| | | Total Kilowatt Hours | Average kwh. per Customer | Total | Average per Customer | Average per kwh. |
| | No. | '000 | No. | \$ | \$ | cts. |
| 1954 | | | | | | |
| Newfoundland..... | .. | .. | .. | .. | .. | .. |
| Prince Edward Island..... | 4,654 | 3,912 | 841 | 324,549 | 69.74 | 8.3 |
| Nova Scotia..... | 22,180 | 17,139 | 773 | 769,276 | 34.68 | 4.5 |
| New Brunswick..... | 38,415 | 37,112 | 966 | 2,097,947 | 54.61 | 5.7 |
| Quebec..... | 101,271 | 150,520 | 1,486 | 4,351,489 | 42.97 | 2.9 |
| Ontario..... | 141,647 | 581,175 | 4,103 | 12,658,976 | 89.37 | 2.2 |
| Manitoba..... | 37,422 | 132,528 | 3,541 | 3,344,872 | 89.38 | 2.5 |
| Saskatchewan..... | 21,287 | 43,693 | 2,053 | 2,037,643 | 95.72 | 4.7 |
| Alberta..... | 24,688 | 73,016 | 2,958 | 1,763,112 | 71.42 | 2.4 |
| British Columbia..... | 19,570 | 59,479 | 3,039 | 1,289,826 | 65.91 | 2.2 |
| Yukon and Northwest Territories.. | .. | .. | .. | .. | .. | .. |
| Canada, 1954..... | 411,134 | 1,098,574 | 2,672 | 28,637,690 | 69.66 | 2.6 |

8.—Farm Service Furnished by Central Electric Stations, by Province, 1954 and 1955— concluded

| Year and Province or Territory | Customers | Consumption of Electric Energy | | Revenue Received | | |
|------------------------------------|----------------|--------------------------------------|---------------------------------|-------------------|----------------------------|------------------------|
| | | Total Kilowatt Hours | Average kwh. per Customer | Total | Average per Customer | Average per kwh. |
| | No. | '000 | No. | \$ | \$ | cts. |
| 1955 | | | | | | |
| Newfoundland..... | 704 | 1,039 | 1,476 | 41,000 | 58.24 | 4.0 |
| Prince Edward Island..... | 5,420 | 4,889 | 902 | 383,000 | 70.66 | 7.8 |
| Nova Scotia..... | 23,714 | 20,164 | 850 | 942,000 | 39.72 | 4.7 |
| New Brunswick..... | 39,786 | 39,542 | 994 | 2,257,000 | 56.73 | 5.7 |
| Quebec..... | 104,357 | 172,806 | 1,656 | 4,872,000 | 46.69 | 2.8 |
| Ontario..... | 144,498 | 621,564 | 4,302 | 13,386,000 | 92.64 | 2.2 |
| Manitoba..... | 38,277 | 136,410 | 3,564 | 3,071,000 | 80.23 | 2.3 |
| Saskatchewan..... | 28,993 | 59,564 | 2,054 | 2,780,000 | 95.89 | 4.7 |
| Alberta..... | 31,619 | 91,138 | 2,882 | 2,153,000 | 68.09 | 2.4 |
| British Columbia..... | 24,326 | 90,945 | 3,739 | 1,854,000 | 76.21 | 2.0 |
| Yukon and Northwest Territories... | .. | .. | .. | .. | .. | .. |
| Canada, 1955..... | 441,694 | 1,238,061 | 2,803 | 31,739,000 | 71.86 | 2.6 |

Equipment of Central Electric Stations.—Power station equipment shown in Table 9 includes thermal and hydraulic equipment of generating stations and thermal stand-by equipment of non-generating stations. The capacities of the equipment are manufacturers' ratings and, with regard to water wheels and turbines, it should be noted that the kilowatt hour capacities vary with the supply of water. The majority of the hydraulic stations are large, serving wide areas over heavy transmission lines. With a few exceptions most of the thermal plants are small, serving the needs of local municipalities. In 1955 the capacity of thermal plants increased 8 p.c. as compared with the previous year. In some localities larger units are being installed to replace two or three small units. Equipment data were not included for small industries or firms, particularly in Saskatchewan and Alberta where output was largely consumed by the producing plants.

9.—Capacity of Central Electric Station Equipment by Province 1954 and 1955

| Province or Territory | 1954 | | | 1955 | | |
|---------------------------|---------------------------------|--------------------|-------------------|---------------------------------|--------------------|-------------------|
| | Water Wheels and Turbines | Thermal Engines | Generators | Water Wheels and Turbines | Thermal Engines | Generators |
| | h.p. | h.p. | kva. | h.p. | h.p. | kva. |
| Newfoundland..... | 106,850 | 7,053 | 97,786 | 245,650 | 6,911 | 252,561 |
| Prince Edward Island..... | 369 | 21,170 | 17,245 | 369 | 21,170 | 21,539 |
| Nova Scotia..... | 155,605 | 244,266 | 340,287 | 155,605 | 302,792 | 458,397 |
| New Brunswick..... | 133,600 | 131,771 | 232,323 | 133,600 | 123,761 | 257,351 |
| Quebec..... | 7,394,133 | 56,862 | 6,390,894 | 7,587,033 | 58,762 | 7,645,795 |
| Ontario..... | 4,582,876 | 993,317 | 4,426,515 | 5,124,756 | 992,167 | 6,116,923 |
| Manitoba..... | 715,000 | 37,250 | 577,651 | 795,000 | 71,390 | 866,390 |
| Saskatchewan..... | 106,500 | 370,206 | 408,460 | 106,500 | 421,932 | 528,432 |
| Alberta..... | 235,900 | 306,279 | 450,943 | 297,850 | 340,964 | 638,814 |
| British Columbia..... | 1,015,950 | 90,107 | 960,332 | 1,076,815 | 104,221 | 1,181,036 |
| Yukon and N.W.T..... | 14,740 | 2,012 | 14,327 | 15,540 | 2,842 | 18,382 |
| Canada..... | 14,461,523 | 2,260,293 | 13,916,763 | 15,538,718 | 2,446,902 | 17,985,620 |

Export and Import of Electric Power.—Electric energy is exported from Canada only under licence and an export tax of 0.03 cents per kilowatt hour is levied with some exceptions. The export duties for the years ended Dec. 31, 1953 to 1956, were \$727,209,

\$815,492, \$1,330,038 and \$1,531,101, respectively. Exports at the International Boundary for the years 1953-56 are shown in Table 10. There are also large interprovincial movements of electric energy from Quebec to Ontario, and smaller movements between other provinces.

Exports to the United States reached a record high of 5,103,669,000 kwh. in 1956.

10.—Electric Energy Exported from Canada, by Companies, and Imported from the United States 1953-56

| Company | 1953 | 1954 | 1955 | 1956 |
|---|------------------|------------------|------------------|------------------|
| | '000 kwh. | '000 kwh. | '000 kwh. | '000 kwh. |
| Exported to United States..... | 2,424,030 | 2,718,308 | 4,433,460 | 5,103,669 |
| Hydro-Electric Power Commission of Ontario..... | 352,129 | 307,550 | 372,564 | 394,249 |
| Hydro-Electric Power Commission of Ontario (surplus)..... | 616,066 | 1,111,971 | 2,831,061 | 3,634,444 |
| Canadian Niagara Power Company..... | 316,641 | 312,291 | 295,909 | 272,678 |
| Canadian Niagara Power Company (surplus)..... | 69,899 | 68,748 | 46,804 | 38,358 |
| Ontario and Minnesota Power Company..... | 44,212 | 43,655 | 41,541 | 43,573 |
| Maine and New Brunswick Electric Power Company..... | 28,666 | 42,138 | 24,059 | 20,200 |
| Maine and New Brunswick Electric Power Company (surplus)..... | 7,439 | 17,143 | 8,446 | 3,804 |
| British Columbia Electric Railway Company..... | 308,695 | 150,006 | 146,770 | 19,635 |
| Southern Canada Power Company..... | 3,787 | 3,818 | 4,026 | 4,839 |
| Southern Canada Power Company (surplus)..... | 28,777 | 13,657 | 30,866 | 43,169 |
| Quebec Hydro-Electric Commission..... | 645,411 | 643,864 | 630,627 | 627,239 |
| Fraser Companies, Limited..... | 1,864 | 3,025 | 355 | 979 |
| Detroit and Windsor Subway Company..... | 360 | 336 | 359 | 427 |
| Other..... | 84 | 106 | 73 | 75 |
| Imported from United States..... | 180,637 | 119,024 | 158,562 | 226,991 |

Subsection 2.—Ownership and Regulation of Central Electric Stations*

Water power is developed in Canada by provincial commissions, by municipalities and by private companies. The first such provincial commission was formed in Ontario in 1906 to act as trustee for a group of municipalities to develop and distribute electricity. The Hydro-Electric Power Commission of Ontario now generates and purchases power, transmits it to rural and urban municipalities and also serves large power customers. This Commission also exports and imports power to and from the United States and is currently developing water power along the projected St. Lawrence Seaway in co-operation with the New York State Power Authority.

* The information included under the provincial headings of this Subsection has been revised by the various provincial commissions or authorities concerned.

11.—Summary Statistics of Publicly Owned Central Electric Stations 1946-55

| Year | Generating Power Plants | Customers | Electric Energy Generated | Power Equipment | |
|-------------------------|-------------------------|------------------------|---------------------------|---------------------------|-----------|
| | | | | Water Wheels and Turbines | Total |
| | No. | No. | '000 kwh. | h.p. | h.p. |
| 1946..... | 203 | 1,650,739 | 14,739,271 | 3,274,484 | 3,612,539 |
| 1947..... | 230 | 1,772,919 | 15,759,275 | 3,380,900 | 3,760,833 |
| 1948..... | 242 | 1,884,642 | 16,692,388 | 3,632,636 | 4,085,141 |
| 1949 ¹ | 259 | 2,033,418 | 17,686,684 | 3,784,484 | 4,359,048 |
| 1950..... | 270 | 2,200,957 | 20,061,314 | 4,558,449 | 5,171,747 |
| 1951..... | 270 | 2,315,309 | 24,380,802 | 4,955,247 | 5,804,690 |
| 1952..... | 225 | 2,444,672 | 26,525,971 | 5,286,462 | 6,542,270 |
| 1953..... | 221 | 2,583,608 | 28,447,578 | 5,618,667 | 7,382,895 |
| 1954..... | .. | 2,749,481 | 32,553,236 | 6,964,177 | 8,710,318 |
| 1955..... | .. | 2,922,684 ² | 38,278,661 | 7,613,957 | 9,497,169 |

¹ Newfoundland included from 1949.

² Not comparable with previous years; only ultimate customers now included. Including customers who purchased for resale, the total is 2,923,131.

A large portion of the power development in Quebec is connected with pulp and paper plants and with the aluminum industry. Such power plants are operated as separate organizations and deliver power to the parent companies at relatively low rates. Substantial blocks of power are also produced in Quebec for use in Ontario.

Table 12 shows statistics of publicly owned central electric stations by province for 1954 and 1955. Table 14 gives comparable statistics for private stations.

12.—Publicly Owned Central Electric Stations by Province 1954 and 1955

| Year and Province or Territory | Customers ¹ | Electric Energy Generated | Power Equipment | |
|--------------------------------------|------------------------------|---------------------------|---------------------------|------------------|
| | | | Water Wheels and Turbines | Total |
| | No. | '000 kwh. | h.p. | h.p. |
| 1954 | | | | |
| Newfoundland..... | 1,314 | 4,446 | — | 2,264 |
| Prince Edward Island..... | 2,981 | 8,507 | — | 4,190 |
| Nova Scotia..... | 65,519 | 455,279 | 104,550 | 141,758 |
| New Brunswick..... | 100,956 | 391,502 | 39,600 | 159,481 |
| Quebec..... | 494,704 | 8,342,777 | 1,796,035 | 1,831,999 |
| Ontario..... | 1,482,388 | 18,289,567 | 4,076,797 | 5,016,958 |
| Manitoba..... | 219,426 | 3,009,962 | 708,000 | 745,250 |
| Saskatchewan..... | 157,865 | 627,307 | — | 320,655 |
| Alberta..... | 132,032 | 514,250 | — | 204,375 |
| British Columbia..... | 92,104 | 858,066 | 227,845 | 271,398 |
| Yukon and Northwest Territories..... | 192 | 51,575 | 11,350 | 11,990 |
| Canada, 1954..... | 2,749,481 | 32,553,238 | 6,964,177 | 8,710,318 |
| 1955 | | | | |
| Newfoundland..... | 1,368 | 4,979 | — | 2,264 |
| Prince Edward Island..... | 3,237 | 7,315 | — | 4,190 |
| Nova Scotia..... | 66,705 | 469,293 | 104,550 | 141,672 |
| New Brunswick..... | 104,771 | 441,465 | 39,600 | 151,536 |
| Quebec..... | 516,664 | 9,078,395 | 1,796,035 | 1,831,999 |
| Ontario..... | 1,573,437 | 22,669,096 | 4,606,077 | 5,545,088 |
| Manitoba..... | 239,423 | 3,102,701 | 788,000 | 858,750 |
| Saskatchewan..... | 173,047 | 807,370 | — | 372,381 |
| Alberta..... | 146,889 | 635,583 | — | 251,375 |
| British Columbia..... | 96,931 | 1,004,755 | 268,345 | 325,519 |
| Yukon and Northwest Territories..... | 212 | 57,709 | 11,350 | 12,395 |
| Canada, 1955..... | 2,922,684¹ | 38,278,661 | 7,613,957 | 9,497,169 |

¹ Figures for 1955 are not comparable with those for 1954 and previous years; only ultimate customers now included. Including customers who purchased for resale, the 1955 total is 2,923,131 and provincial totals are: Newfoundland, 1,368; Prince Edward Island, 3,240; Nova Scotia, 66,734; New Brunswick, 104,779; Quebec, 516,688; Ontario, 1,573,798; Manitoba, 239,430; Saskatchewan, 173,054; Alberta, 146,892; British Columbia, 96,933; Yukon and Northwest Territories, 215.

Summary statistics of privately owned central electric stations are given for the years 1946 to 1955 in Table 13.

13.—Summary Statistics of Privately Owned Central Electric Stations 1946-55

| Year | Generating Power Plants | Customers | Electric Energy Generated | Power Equipment | |
|-------------------------|-------------------------|------------------------|---------------------------|---------------------------|-----------|
| | | | | Water Wheels and Turbines | Total |
| | No. | No. | '000 kwh. | h.p. | h.p. |
| 1946..... | 397 | 826,091 | 26,997,716 | 6,104,383 | 6,389,173 |
| 1947..... | 377 | 870,408 | 27,665,524 | 5,750,950 | 6,025,254 |
| 1948..... | 393 | 937,385 | 25,697,293 | 5,837,670 | 6,134,455 |
| 1949 ¹ | 391 | 1,042,951 | 26,731,889 | 6,188,921 | 6,524,228 |
| 1950..... | 395 | 1,068,867 | 28,432,404 | 6,471,350 | 6,804,494 |
| 1951..... | 377 | 1,124,441 | 30,471,042 | 6,831,792 | 7,225,902 |
| 1952..... | 337 | 1,175,923 | 32,883,227 | 7,264,376 | 7,679,536 |
| 1953..... | 303 | 1,233,847 | 34,413,349 | 7,804,711 | 8,278,142 |
| 1954..... | .. | 1,252,145 | 33,383,202 | 7,497,346 | 8,011,498 |
| 1955..... | .. | 1,302,217 ² | 34,631,931 | 7,924,761 | 8,488,451 |

¹ Figures include Newfoundland since 1949. ² Not comparable with previous years; only ultimate customers now included. Including customers who purchased for resale, the total is 1,302,427.

The predominant position of Quebec in the privately owned electric power field can be seen from Table 14, although that predominance is gradually diminishing. Of the total power generated in Canada by all central electric stations in 1955, 36 p.c. was generated by privately owned stations in the Province of Quebec as compared with 39 p.c. in 1954 and 40 p.c. in 1953.

14.—Privately Owned Central Electric Stations by Province 1954 and 1955

| Year and Province or Territory | Customers ¹ | Electric Energy Generated | Power Equipment | |
|--------------------------------------|------------------------------|---------------------------|---------------------------|------------------|
| | | | Water Wheels and Turbines | Total |
| | No. | '000 kwh. | h.p. | h.p. |
| 1954 | | | | |
| Newfoundland..... | 48,014 | 275,331 | 106,850 | 111,639 |
| Prince Edward Island..... | 11,963 | 34,007 | 369 | 17,349 |
| Nova Scotia..... | 105,169 | 665,229 | 51,055 | 258,113 |
| New Brunswick..... | 27,390 | 508,473 | 94,000 | 105,890 |
| Quebec..... | 586,496 | 25,755,457 | 5,598,098 | 5,618,996 |
| Ontario..... | 37,904 | 1,853,165 | 506,079 | 559,235 |
| Manitoba..... | 14,433 | 761 | 7,000 | 7,000 |
| Saskatchewan..... | 11,641 | 664,972 | 106,500 | 156,051 |
| Alberta..... | 107,094 | 984,235 | 235,900 | 337,804 |
| British Columbia..... | 299,371 | 2,627,844 | 788,105 | 834,659 |
| Yukon and Northwest Territories..... | 2,670 | 13,728 | 3,390 | 4,762 |
| Canada, 1954..... | 1,252,145 | 33,383,202 | 7,497,346 | 8,011,498 |
| 1955 | | | | |
| Newfoundland..... | 50,654 | 706,476 | 245,650 | 250,297 |
| Prince Edward Island..... | 12,690 | 39,115 | 369 | 17,349 |
| Nova Scotia..... | 109,249 | 736,111 | 51,055 | 316,725 |
| New Brunswick..... | 28,108 | 431,391 | 94,000 | 105,815 |
| Quebec..... | 611,133 | 26,281,741 | 5,790,998 | 5,813,796 |
| Ontario..... | 38,462 | 1,681,014 | 518,679 | 571,835 |
| Manitoba..... | 3,741 | 1,235 | 7,000 | 7,640 |
| Saskatchewan..... | 11,966 | 674,451 | 106,500 | 156,051 |
| Alberta..... | 119,618 | 1,093,371 | 297,850 | 387,439 |
| British Columbia..... | 313,587 | 2,972,035 | 808,470 | 855,517 |
| Yukon and Northwest Territories..... | 3,009 | 14,991 | 4,190 | 5,987 |
| Canada, 1955..... | 1,302,217¹ | 34,631,931 | 7,924,761 | 8,488,451 |

¹ Figures for 1955 are not comparable with those for 1954 and previous years; ultimate customers only are now included. Including customers who purchased for resale, the total is 1,302,427, and provincial totals are: Newfoundland, 50,657; Prince Edward Island, 12,691; Nova Scotia, 109,266; New Brunswick, 28,127; Quebec, 611,222; Ontario, 38,486; Manitoba, 3,746; Saskatchewan, 11,969; Alberta, 119,632; British Columbia, 313,619; Yukon and Northwest Territories, 3,012.

In 1955 private and public stations in Ontario produced about 69 p.c. as much power as Quebec stations; these two provinces generated almost 82 p.c. of the total for Canada.

Because of the absence of free market determination of prices and regulation of services in an industry that is semi-monopolistic, regulation of electrical utilities has been attempted in most provinces. The governing bodies of the provincial electric power commissions, their functions and activities are summarized by provinces in the following paragraphs. Certain privately owned utilities are also covered.

Newfoundland.—There are no publicly owned hydro-electric systems in Newfoundland. The largest water power development in the Province is located at Deer Lake. The plant, which is operated by Bowater's Newfoundland Pulp and Paper Company Limited, has a total capacity of 154,000 h.p. This Company develops hydro-electric energy at Deer Lake mainly for its own use in the manufacture of pulp and paper and also supplies electric power to the Buchans Mining Company for its mining operations and to the Newfoundland Light and Power Company Limited which distributes electricity to consumers in Corner Brook and adjacent communities in the Bay of Islands sections.

The Anglo-Newfoundland Development Company Limited develops hydro-electric power at two plants situated at Grand Falls and Bishop's Falls with a total capacity of 64,000 h.p. The Company utilizes most of its hydro-electric power in the manufacture of pulp and paper and supplies light and power to the towns of Grand Falls, Bishop's Falls, Botwood and adjacent communities.

The Newfoundland Light and Power Company Limited has seven plants that develop hydro-electric energy with a total installed capacity of 55,400 h.p. It distributes electricity to the city of St. John's and the town of Bell Island and the iron mining operations there.

The United Towns Electric Company Limited operates eight plants, of which five are located at Conception Bay, two on the Burin Peninsula and one on Trinity Bay. The Company sells light and power to communities on the Avalon and Burin Peninsula. The West Coast Power Company, a subsidiary of the United Towns Electric Company, operates a plant on Lookout Brook, a tributary of Flat Bay Brook which flows into St. George's Bay.

The Iron Ore Company of Canada operates a plant at Menihek Rapids on the Ashuanipi River in Labrador. The plant has an initial installation of 12,000 h.p. with provision for two additional units. It serves the new iron ore mining centre of the Iron Ore Company near Knob Lake.

Two small companies, the Clarenville Light and Power Company and the Union Electric Light and Power Company Limited, operate plants at Clarenville, Port Union and Trinity.

New power plant construction recently completed or under way is outlined at p. 562.

Prince Edward Island.—The area of Prince Edward Island is only 2,184 sq. miles and three-quarters of its population live in rural areas. Electric power must therefore be supplied to rather thickly populated rural districts interspersed with a considerable number of small municipalities. There is little opportunity for the development of hydro-electric power in the Province since the rivers are short, drainage areas small, and the country is relatively flat. Power is therefore mainly generated in thermal and diesel plants using imported fuels.

The Maritime Electric Company Limited, supplies approximately 75 p.c. of the Island's power requirements of 44,296,160 kwh., with a system peak of 11,000 kw. from its Charlottetown plant. The plant consists of six steam turbines of 22,365 kw. total capacity. In 1956 the Company served 11,565 rural and urban customers over 800 miles of Company-owned distribution line with an additional 1,363 rural customers being served by 310 miles of distribution line owned by the Provincial Government but connected to the Company system. The town of Summerside is connected to Charlottetown by a 33-kv. transmission line and purchases approximately 5,000,000 kwh. annually from the Maritime Electric Company.

Two other power systems supply 25 p.c. of the power consumed. The town of Summerside's station is powered by nine diesel engines, has a total capacity of 2,835 kw. and an annual energy production of 7,700,040 kwh. The station serves 1,996 customers in Summerside and 1,244 customers over 132 miles of rural lines. Approximately 520,000 kwh. of energy is sold to the Scales Hydro Electric Company Limited and about 470,000 kwh. is sold to the Maritime Electric Company Limited through interconnected systems.

The Scales Hydro Electric Company Limited operates a small station in Freetown on the Dunk River. Its total capacity is 250 kw., 175 kw. of which is generated by water power and the remainder by diesel engines. The annual energy production is 453,050 kwh. and 681 customers in surrounding areas are served over 29 miles of distribution line.

Nova Scotia.—The Nova Scotia Power Commission was created under the Power Commission Act of 1919 with the function of supplying electric power and energy by the most economical means available. The Rural Electrification Act of 1937 greatly increased the possibilities for retail service by providing for financial assistance to equalize cost and revenue of extensions approved by the Governor in Council. In 1941 an amendment

to the Power Commission Act authorized the Commission, subject to the approval of the Governor in Council, to regulate and control the generation, transmission, distribution, supply and use of power in the Province. Certain investigatory work is carried on in the Province by the Federal Government in close association with the Commission but the control of water resources is vested in the Crown and administered under the provisions of the Nova Scotia Water Act of 1919. The Commission pays regular fees for water rights.

Financially the Commission is self-supporting, repaying borrowings from revenue. The balance sheet at Nov. 30, 1956, showed total fixed assets of \$41,871,175 including work in progress amounting to \$3,915,638. Current assets amounted to \$643,856. Liabilities are as follows: fixed \$34,084,340; current \$1,935,416; contingency and renewal reserves \$4,055,673; sinking fund reserves \$6,913,749; and general reserves and special reserves \$2,309,145.

The initial development of the Commission was an 800-h.p. installation on the Mushamush River which went into operation in 1921 and delivered 208,752 kwh. in the first complete year of operation. Succeeding years showed a marked growth in installed capacity in the Province, which has reached 107,580 h.p. in hydraulic turbines, 2,806 h.p. in diesel units and 41,125 kw. in steam turbines. Total generation for the year ended Nov. 30, 1956, was 500,366,384 kwh. Construction activity during 1955 and 1956 is outlined at p. 563.

The territory of the Commission extends over the entire Province and embraces seven systems which include 24 generating stations and over 4,500 miles of transmission and distribution lines through which wholesale and retail customers received 481,670,027 kwh. during the year ended Nov. 30, 1956.

The installed capacity and annual output of the various systems of the Nova Scotia Power Commission are given in Table 15.

15.—Capacity and Output of the Nova Scotia Power Commission, Year Ended Nov. 30, 1956

| Systems | First Year of Operation | Installed Capacity | | Annual Generation | |
|---------------------------|-------------------------|---------------------|---------------------|-------------------|--------------------|
| | | Initial | 1956 | Initial | 1956 |
| | | h.p. | h.p. | kwh. | kwh. |
| Hydro | | | | | |
| Western Network— | | | | | |
| Mushamush..... | 1921 | 800 | 330 | 208,752 | 1,078,000 |
| Harmony..... | 1943 | 1,200 | 1,200 | 783,913 | 3,284,480 |
| Roseway..... | 1930 | 560 | 1,060 | 365,600 | 3,253,080 |
| Gulch..... | 1952 | 8,500 | 8,500 | 17,843,117 | 23,858,766 |
| Antigonish— | | | | | |
| Barrie Brook..... | 1940 | 500 | 500 | 1,780,734 | 2,349,320 |
| Dickie Brook..... | 1948 | 3,500 | 3,500 | 8,920,000 | 9,743,840 |
| Sheet Harbour— | | | | | |
| Malay Falls..... | 1924 | 5,550 | 5,440 | 6,536,860 | 11,899,500 |
| Ruth Falls..... | 1925 | 6,290 | 10,590 | 7,361,117 | 32,272,200 |
| Liscomb..... | 1951 | — | 700 | — | 1,469,489 |
| St. Margaret..... | 1921 | 10,700 | 15,700 | 19,538,000 | 31,899,100 |
| Mersey— | | | | | |
| Original development..... | 1928 | 29,400 | 28,000 | 85,863,390 | 241,594,350 |
| Cowie Falls..... | 1938 | 10,200 | 10,200 | 37,866,000 | |
| Deep Brook..... | 1950 | 12,800 | 12,800 | 11,154,000 | |
| Lower Great Brook..... | 1955 ¹ | 6,240 | 6,240 | 6,685,770 | |
| Tusket..... | 1929 | 2,820 | 2,820 | 3,680,540 | 10,942,789 |
| Total..... | ... | ... | ... | ... | 373,644,914 |
| Thermal | | | | | |
| Canseau diesel..... | 1937 | 72 | 2,806 | 21,650 | 1,930,710 |
| Canseau steam..... | 1945 | 1,125 ² | 1,125 ² | 4,437,280 | 5,663,560 |
| Sheet Harbour steam..... | 1951 | 20,000 ² | 40,000 ² | 67,158,500 | 119,127,200 |
| Grand Total..... | ... | ... | ... | ... | 500,366,384 |

¹ Started operation July 1955.

² Kilowatts.

New Brunswick.—The New Brunswick Electric Power Commission was incorporated under the Electric Power Act 1920. Generating stations owned by the Commission are as follows:—

| <i>Plant</i> | <i>Type</i> | <i>Capacity</i> | <i>Plant</i> | <i>Type</i> | <i>Capacity</i> |
|---------------------|-------------|-----------------|------------------|-------------|-----------------|
| | | <i>h.p.</i> | | | <i>h.p.</i> |
| Musquash..... | Hydro..... | 9,320 | St. Stephen..... | Diesel..... | 2,800 |
| Tobique..... | Hydro..... | 27,000 | Campobello..... | Diesel..... | 300 |
| Grand Lake..... | Steam..... | 58,700 | Grand Manan..... | Diesel..... | 900 |
| Saint John..... | Steam..... | 21,500 | Shippegan..... | Diesel..... | 2,500 |
| Chatham..... | Steam..... | 16,800 | St. Quentin..... | Diesel..... | 750 |
| TOTAL CAPACITY..... | | | | | 140,570 |

All generating units, with the exception of diesel plants at St. Quentin, Campobello and Grand Manan are interconnected in a province-wide grid system.

The statistical information given in Table 16 shows the growth of the Commission's undertakings since 1952.

16.—Growth of the New Brunswick Electric Power Commission, Years Ended Mar. 31, 1952-56

| <i>Item</i> | 1952 | 1953 | 1954 | 1955 | 1956 |
|---|------------------|-------------|-------------|-------------|----------------------|
| High-voltage transmission line... miles | 749 | 827 | 859 | 888 | 1,071 |
| Distribution line..... | 5,938 | 6,245 | 6,681 | 6,891 | 6,937 |
| Direct customers..... | No. 57,016 | 61,054 | 64,181 | 66,531 | 69,415 |
| Plant capacities..... | h.p. 103,310 | 140,570 | 140,570 | 140,570 | 140,570 ¹ |
| Power generated..... | kwh. 282,405,310 | 321,232,150 | 379,369,500 | 422,750,090 | 493,609,040 |
| Capital invested..... | \$ 38,286,374 | 48,120,336 | 52,077,662 | 56,634,724 | 71,140,250 |
| Revenue..... | \$ 6,255,615 | 7,059,588 | 7,814,229 | 8,528,459 | 9,635,272 |

¹ Additions to capacity are outlined at p. 563.

Quebec.—*The Quebec Streams Commission.*—Created by S.Q. 1 Geo. V, c. 5, and given additional powers by 3 Geo. V, c. 6 (R.S.Q. 1925, c. 46) and 20 Geo. V, c. 34, the Quebec Streams Commission was authorized to ascertain the water resources of the Province, to make recommendations regarding their control, and to construct and operate certain storage dams to regulate the flow of streams. It assisted companies engaged in such work by the systematic collection of data on the flow of the principal rivers and on meteorological conditions, by investigation of numerous water power sites and determination of the longitudinal profile of a large number of rivers.

On Apr. 1, 1955, the Quebec Streams Commission was abolished and its powers and attributions transferred to the Hydraulic Resources Department, Province of Quebec. The rivers controlled by the Commission at the time of transfer, either by means of dams on the rivers or by regulating the outflow of lakes at the headwaters, were: the St. Maurice, the Gatineau, the Lièvre, the St. Francis, the Chicoutimi, the Au Sable, and the Métis. The Commission also operated nine reservoirs on North River, two in the watershed of the Ste. Anne-de-Beaupré River, and one at the outlet of Lake Morin on Rivière-du-Loup (lower).

Other Reservoir Control.—Storage reservoirs otherwise controlled or operated are: the Lake St. John, the Lake Manouane and Passe Dangereuse on the Peribonca River, and the Onatchiway on the Shipshaw River; the Témiscouata Lake on Madawaska River, controlled by the Gatineau Power Company; Memphremagog Lake on the Magog River, controlled by the Dominion Textile Company; Témiscamingue and Quinze Lakes on the Ottawa River, controlled by the Federal Department of Public Works; Kipawa Lake on the Ottawa River, controlled by the Gatineau Power Company; and Dozois Lake on the upper Ottawa River and Pipmaukin Lake in the Bersimis River watershed, controlled by the Quebec Hydro-Electric Commission.

Power developments on the Saguenay River, benefiting from the Peribonca and Lake St. John reservoirs, have a total capacity of 1,950,000 h.p.

The Quebec Hydro-Electric Commission.—The Quebec Hydro-Electric Commission was established by S.Q. 8 Geo. VI, c. 22, with the object of supplying power to the municipalities, to industrial and commercial undertakings and to citizens of the Province of Quebec at the lowest rates consistent with sound financial administration.

On Apr. 15, 1944, in accordance with the provisions of this Act, the Commission took over: (a) the system of Montreal Light, Heat and Power Consolidated for the generation and distribution of electricity; (b) the undertaking of the Montreal Island Power Company for the generation and distribution of electricity; and (c) all the shares of the capital stock of the Beauharnois Light, Heat and Power Company. Thus the Quebec Hydro-Electric Commission at the end of 1956 controlled among other assets the following hydro-electric plants:*

| <u>Plant</u> | <u>River</u> | <u>Installed Capacity</u> h.p. |
|------------------------|---------------------------|-----------------------------------|
| Cedars..... | St. Lawrence..... | 206,400 |
| Sault-au-Recollet..... | Rivière-des-Prairies..... | 45,000 |
| Beauharnois..... | St. Lawrence..... | 1,400,000 |
| Rapid VII..... | Upper Ottawa..... | 64,000 |
| Rapid II..... | Upper Ottawa..... | 32,000 |
| Bersimis No. 1..... | Bersimis..... | 300,000 |

The Commission operates a public utility system which supplies electric light and power requirements to Metropolitan Montreal and surrounding districts, embracing a population of nearly 2,000,000. From the Cedars plant, electric energy is supplied to the Aluminum Company of America at Massena, N.Y., and through the Beauharnois Light, Heat and Power Company power is sold to The Hydro-Electric Power Commission of Ontario. Sales involved are in the neighbourhood of 100,000 h.p. to Massena, N.Y., and 250,000 h.p. to Ontario.

* The Commission also purchases 135,000 h.p. from the Shawinigan Water and Power Company.

17.—Growth of the Quebec Hydro System 1946-55

NOTE.—Figures for the years 1935-45 will be found in the 1950 Year Book, p. 572.

| Year | Municipalities Served | Customers Served | Power Distributed | |
|-----------|-----------------------|------------------|-------------------|-----------|
| | | | Total | Primary |
| | No. | No. | h.p. | h.p. |
| 1946..... | 61 | 309,022 | 1,085,000 | 947,000 |
| 1947..... | 61 | 318,984 | 1,127,000 | 980,000 |
| 1948..... | 61 | 330,799 | 1,202,000 | 1,034,000 |
| 1949..... | 61 | 349,347 | 1,233,000 | 1,119,000 |
| 1950..... | 64 | 358,026 | 1,296,000 | 1,182,000 |
| 1951..... | 66 | 387,218 | 1,312,000 | 1,312,000 |
| 1952..... | 67 | 400,779 | 1,620,000 | 1,462,000 |
| 1953..... | 67 | 413,439 | 1,748,000 | 1,625,000 |
| 1954..... | 67 | 430,687 | 1,700,000 | 1,687,000 |
| 1955..... | 67 | 452,811 | 1,760,000 | 1,725,000 |

Power plant construction recently completed and under way is outlined at pp. 563-564.

18.—Distribution of Quebec Hydro Primary Power by Customer Group 1951-55

(Coincident with Montreal System peak)

| System | 1951 | 1952 | 1953 | 1954 | 1955 |
|--|------------------|------------------|------------------|------------------|------------------|
| | h.p. | h.p. | h.p. | h.p. | h.p. |
| Montreal System..... | 803,000 | 873,000 | 997,000 | 1,117,000 | 1,230,000 |
| Beauharnois Local System..... | 171,000 | 189,000 | 213,000 | 154,000 | 106,000 |
| Beauharnois 25-cycle System (H.E.P.C. of Ontario)..... | 250,000 | 250,000 | 250,000 | 250,000 | 250,000 |
| Massena System..... | 80,000 | 135,000 | 142,000 | 126,000 | 99,000 |
| Shawinigan System..... | 8,000 | 15,000 | 23,000 | 40,000 | 40,000 |
| Totals..... | 1,312,000 | 1,462,000 | 1,625,000 | 1,687,000 | 1,725,000 |

In addition to these generating and distributing systems, the Quebec Hydro-Electric Commission owns the 64,000-h.p. upper Ottawa River plant at Rapid VII, the 48,000-h.p. Rapid II plant and also the Dozois Reservoir. Average primary power capacities for this Northern Quebec System (Cadillac-Noranda district) are: 1951, 30,550 h.p.; 1952, 29,200 h.p.; 1953, 54,000 h.p.; 1954, 80,000 h.p.; 1955, 96,000 h.p.

The Commission delivers some 30,000 h.p. on the south shore of the St. Lawrence River in the Gaspé area. That power is temporarily purchased from Manicouagan Power Company and transmitted across the River through a 69-kv. submarine cable, over a distance of 30 miles. The Commission also purchases about 13,000 h.p. from Saguenay Transmission Company for delivery to mining companies in the Chibougamau area.

Ontario.—The Hydro-Electric Power Commission of Ontario was created in 1906 by an enactment of the Ontario Legislature. In its creation, consideration was given to the recommendations of advisory commissions previously appointed in response to public demand that the water powers of Ontario should be conserved and developed for the benefit of all the people of the Province. The Commission operates under the authority of The Power Commission Act (7 Edw. VII, c. 19) passed in 1907 as an amplification of the Act of 1906 and subsequently modified by numerous amending Acts (R.S.O. 1950, c. 281).

The Commission may have from three to six members, all of whom are appointed by the Lieutenant-Governor in Council. One commissioner must be, and a second commissioner may be, a member of the Executive Council of the Province of Ontario.

The Commission is a corporate entity, a self-sustaining public concern endowed under The Power Commission Act with broad powers to produce, buy and deliver electric power throughout the Province and to exercise certain regulatory functions with respect to the large group of municipal electrical utilities which it serves. The enterprise administered by the Commission is generally referred to as Ontario Hydro.

Initially the undertaking proposed to purchase a block of 100,000 h.p. from the Ontario Power Company Limited at Niagara Falls and to distribute this to 13 municipalities which had signed the original contracts with the Commission to take power at cost. Construction of a transmission system to distribute power to the member municipalities was begun in 1909, and by the end of 1910 power was being supplied to several municipalities through what was known as the Niagara System. In northwestern Ontario the Thunder Bay System was inaugurated when the Commission built a short transmission line and a sub-station to serve Port Arthur with power purchased from the Kaministiquia Power Company.

The establishment of the original Niagara System was followed in 1911 by the formation of the Severn System and subsequently of other systems to serve groups of municipalities in various sections of the Province. In 1924 the Severn and two other systems were consolidated to form the Georgian Bay System and in 1929 and 1930 a consolidation of

four systems created the Eastern Ontario System. In 1944 the Southern Ontario System came into being through the consolidation of the Niagara, Georgian Bay, and Eastern Ontario Systems.

The Commission continued to operate the Thunder Bay System in the northern part of the Province and in addition it undertook during the 1930's to operate, in trust for the Provincial Government, a group of unconnected systems serving mainly mining and pulp and paper industries, and known as the Northern Ontario Properties. In 1945 its services in northern Ontario were further extended by the purchase of the power system of the Northern Ontario Power Company Limited. On Jan. 1, 1952, the Northern Ontario Properties and the Thunder Bay System were merged for financial and administrative purposes and the consolidation continues to be known as the Northern Ontario Properties.

For the financial and administrative purposes of the Commission, the Province is divided into two parts: that part lying south of a line drawn approximately west from Mattawa on the Upper Ottawa River to Georgian Bay is served by the Southern Ontario System; the part lying to the north is served by the Northern Ontario Properties. The total area is in turn subdivided into nine regions, seven in the south and two in the north, with regional offices located strategically in nine major municipalities. The Southern Ontario System is a fully integrated co-operative power system. Primarily it serves a group of 324 municipalities receiving power at cost under contracts established according to the provisions of The Power Commission Act. In the Northern Ontario Properties, each of the two regions, which at present correspond with the Northeastern and Northwestern Divisions, is an integrated power system as the result of the gradual consolidation of several formerly isolated systems. There is no interconnection between the Northeastern and Northwestern Divisions but there are facilities for the interchange of power between the Northeastern Division and the Southern Ontario System. The Northern Ontario Properties is not a co-operative system although it does serve a group of eight municipalities in its Northwestern Region on a cost-contract basis. Apart from the supply of power to these cost-contract customers, the Northern Ontario Properties are held and operated in trust for the Province of Ontario. The basic principle governing the financial operations of the undertaking is that electrical service is provided by the Commission to the municipal electrical utilities, and by them to their customers at cost.

The Commission's total cost of operation includes the power it purchases, all charges for operation and maintenance of the power systems, interest, and reserve provisions for depreciation, contingencies and stabilization of rates. A sinking-fund reserve is also included for the retirement of the Commission's capital debt. The enterprise from its inception has been self-supporting, except for the Provincial Government assistance of 50 p.c. of the capital cost of rural distribution facilities, undertaken in pursuance of the Province's long established policy of assisting agriculture. The Province also guarantees the payment of principal and interest of all bonds issued by the Commission and held by the public.

The undertaking as a whole involves two distinct phases of operation: (1) Provision of power supply—either by generation or purchase—and its transformation, transmission and delivery in *wholesale* quantities to municipal electrical utilities, certain large industrial customers and rural operating areas. This phase of operation is performed by The Hydro-Electric Power Commission of Ontario. (2) The *retail* distribution of electric energy. In most cities and towns, and in many villages and certain township areas, retail distribution of electric energy is conducted by municipal commissions under the general supervision of The Hydro-Electric Power Commission of Ontario as provided for in The Power Commission Act and The Public Utilities Act. These local commissions own and operate their own distribution facilities. In a small group of municipalities Ontario Hydro owns the distribution facilities and conducts retail distribution through what are called local systems. Throughout most of rural Ontario the Commission, on behalf of the respective townships, operates the distribution facilities and attends to all physical and financial operations connected with the retail distribution of energy to customers in the rural operating areas. Since 1944 the rate structure applying to rural customers designated as farm, hamlet, commercial, and summer service has been uniform throughout the Province.

The growth of Ontario Hydro's physical and financial resources reflects the remarkable industrial and social development of the Province. In 1914 the Commission purchased its first generating station, Big Chute on the Severn River. Later in the same year the first Commission-built generating station was placed in service at Wasdell Falls, also on the Severn River. This early program of purchase and construction of generating stations reached a climax in the great Queenston-Chippawa development, later renamed Sir Adam Beck-Niagara Generating Station No. 1 in honour of the first Chairman of the Commission. This station first delivered power in 1922 but four years later the Commission found it necessary to negotiate for the extensive purchase of power from large Quebec suppliers in order to satisfy Ontario's steadily growing power demands—demands that have continued to increase over the years.

In 1956 the primary and secondary load carried reached a total of 4,909,104 kw. and a total of 29,523,546,866 kwh. was supplied during that year from all the Commission's resources generated and purchased.

Primary power requirements in the Commission's systems have increased over the past 34 years at a rate of 6.6 p.c. per annum. Since 1950 the rate has been 8.3 p.c. per annum and the Commission has been able to keep abreast of requirements only through a most vigorous program of capital construction. Table 20 shows the power development program and indicates the magnitude of construction work completed to date and in progress at four new developments and at five stations already in service. The two major projects under construction are the St. Lawrence Power Project and Sir Adam Beck-Niagara Generating Station No. 2 on the Niagara River.

The 1955 Year Book, at pp. 549-553, contains a descriptive article on the St. Lawrence Power Project. It is a separate undertaking from the St. Lawrence Seaway but the planning, construction and operation of both must be carefully co-ordinated. Construction of the Seaway is the responsibility of authorities created by Canada and the United States. The Power Project is being built jointly by The Hydro-Electric Power Commission of Ontario and The Power Authority of the State of New York and is subject to the approval of a Joint Board of Engineers appointed by the Governments of Canada and the United States. The Commission and The Power Authority will share equally in the cost of constructing the Project, exclusive of the cost of powerhouse machinery and equipment which will be borne by the respective entities. The generating station on the Canadian side will be known as the Robert H. Saunders-St. Lawrence Generating Station.

The new station will have an installed capacity of 820,000 kw. in 16 units and will be of the modified outdoor type. It will form part of a common powerhouse structure extending 3,300 feet from the eastern end of Barnhart Island to the Canadian mainland. Other structures associated with the Project include the Long Sault dam at the upper end of Barnhart Island, the Iroquois dam about 25 miles farther up stream, and dykes as required to contain the headpond. The Project also involves the relocation of transportation and communication facilities, the re-establishment of whole communities beyond the area to be flooded by the headpond, and the improvement of channels in the St. Lawrence River.

First concrete for the powerhouse structure was placed in February 1956, just 18 months after the commencement of construction. By the middle of the summer, pours in excess of 2,000 cu. yards daily were being made and by the end of the year more than 40 p.c. of all concrete work for the Canadian powerhouse was finished. Concrete placing was begun on embedded parts for the first three turbines.

Almost all the residential work in two new townsites was complete and other work on providing essential services was proceeding in these townsites and in other communities where house-moving was under way. One section of relocated highway was open to traffic and track-laying for the relocated Canadian National Railway line was almost finished.

During 1957, the first of four additional units scheduled for installation in the main powerhouse at Sir Adam Beck-Niagara Generating Station No. 2 was placed in service. All four units will be in service in 1958. The six-unit pumping-generating scheme associated with this development was also initially placed in service in the summer of 1957 and all units were in service by the end of the year.

The 1,550-foot control dam being built by the Commission as part of the Niagara River remedial works was scheduled for service in 1957. This marks the completion of the remedial works required under the Niagara Diversion Treaty of 1950 and undertaken on the United States side of the river by the Corps of Engineers, United States Army, and on the Canadian side by The Hydro-Electric Power Commission of Ontario. The cost is shared equally by Canada and the United States.

Other construction under way is outlined at pp. 564-565.

During 1956 the Commission's fixed assets showed an increase of \$160,238,456 and at the end of the year amounted to \$1,732,994,596. The accumulated depreciation provided on these assets was \$190,314,840. Total assets after deducting this accumulated depreciation amounted to \$2,010,680,078.

In 1956 a total of 350 municipal utilities purchased power from the Commission under cost or fixed-rate contracts for resale to their customers. These utilities had fixed assets amounting to \$298,832,207, against which they had provided \$66,539,420 in accumulated depreciation. Municipal utility assets after deducting this accumulated depreciation amounted to \$466,075,117, of which \$183,262,708 represented the equity acquired in the Commission's systems by those utilities operating under cost contracts.

19.—Resources of The Hydro-Electric Power Commission of Ontario Generated and Purchased (All Systems), December 1955 and 1956

| Year and System | Commission's Generating Stations | | | | Power Purchased | |
|-------------------------------|----------------------------------|------------------|-------------------------------|----------------|-----------------|----------------|
| | Hydro-electric ¹ | | Thermal-electric ¹ | | | |
| | kw. | h.p. | kw. | h.p. | kw. | h.p. |
| December 1955— | | | | | | |
| Southern Ontario System..... | 2,596,400 | 3,480,429 | 636,000 | 852,547 | 681,100 | 913,002 |
| Northern Ontario Properties— | | | | | | |
| Northeastern Division..... | 297,400 | 398,660 | 1,000 | 1,340 | 1,200 | 1,609 |
| Northwestern Division..... | 315,200 | 422,520 | — | — | 2,200 | 2,949 |
| Totals, Resources..... | 3,209,000 | 4,301,609 | 637,000 | 853,887 | 684,500 | 917,560 |
| December 1956— | | | | | | |
| Southern Ontario System..... | 2,625,400 | 3,519,302 | 616,000 | 825,737 | 640,000 | 857,909 |
| Northern Ontario Properties— | | | | | | |
| Northeastern Division..... | 297,400 | 398,660 | 1,300 | 1,743 | 1,200 | 1,609 |
| Northwestern Division..... | 368,100 | 493,432 | — | — | 2,700 | 3,619 |
| Totals, Resources..... | 3,290,900 | 4,411,394 | 617,300 | 827,480 | 643,900 | 863,137 |

¹ Dependable peak capacity—the amount of power subject to periodic change as equipment and water conditions vary, which the source is expected to be able to supply at the time of the system's peak demand. For the Commission owned or Commission operated generating stations, it is presumed that all units are available and that the supply of water is normal. Contractual stipulations govern the capacities of sources of purchased power.

20.—Power Development Program of The Hydro-Electric Power Commission of Ontario 1947-60, as at Dec. 31, 1956

| System and Development | In Service | Dependable Peak Capacity |
|---|------------|--------------------------|
| | | kw. |
| Southern Ontario System— | | |
| DeCew Falls—Niagara Region.....(extension by 1 unit) | 1947 | 57,000 |
| Stewartville—Madawaska River..... | 1948 | 63,000 |
| Polymer Corporation (additional power purchase contract)..... | 1948 | 22,000 |
| Des Joachims—Ottawa River..... | 1950-51 | 372,000 |
| Chenau—Ottawa River..... | 1950-51 | 117,000 |
| Richard L. Hearn—Toronto.....(4 units) | 1951-53 | 400,000 ¹ |
|(4 units) | 1958-60 | 800,000 ¹ |
| J. Clark Keith—Windsor..... | 1951-53 | 264,000 ¹ |
| Otto Holden—Ottawa River..... | 1952-53 | 210,000 |
| Sir Adam Beck—Niagara No. 2—Niagara River.....(12 units) | 1954-55 | 900,000 ¹ |
|(4 units) | 1957-58 | 300,000 ¹ |
|Pumping-generating station (6 units) | 1957-58 | 170,000 ¹ |
| Robert H. Saunders—St. Lawrence—St. Lawrence River.....(16 units) | 1958-60 | 820,000 ¹ |
| Nuclear Power Demonstration—near Des Joachims Generating Station..... | 1959 | 20,000 ¹ |

¹ Installed capacity.

20.—Power Development Program of The Hydro-Electric Power Commission of Ontario 1945-60, as at Dec. 31, 1956—concluded

| System and Development | In Service | Dependable Peak Capacity |
|--|------------|--------------------------------|
| Northern Ontario Properties— | | |
| Northeastern Division— | | |
| George W. Rayner—Mississagi River..... | 1950 | 47,000 |
| Northwestern Division— | | |
| Ear Falls—English River..... (extension by 1 unit) | 1948 | 6,000 |
| Aguasabon—Aguasabon River..... | 1948 | 44,000 |
| Pine Portage—Nipigon River..... | 1950-54 | 119,200 |
| Manitou Falls—English River..... (4 units) | 1956 | 65,700 |
| | (1 unit) | |
| Caribou Falls—English River..... (3 units) | 1958 | 67,500 |
| Whitedog Falls—Winnipeg River..... (3 units) | 1958 | 54,000 |
| Cameron Falls—Nipigon River..... (extension by 1 unit) | 1958 | 19,100 |
| Alexander—Nipigon River..... (extension by 1 unit) | 1958 | 11,300 |

21.—Distribution of Power to Systems of The Hydro-Electric Power Commission of Ontario, Years Ended Dec. 31, 1952-56

NOTE.—Peak load generated and purchased, primary and secondary, in terms of generation.

| System | 1952 | 1953 | 1954 | 1955 | 1956 |
|-------------------------------------|------------------|------------------|------------------|------------------|------------------|
| | kw. | kw. | kw. | kw. | kw. |
| Southern Ontario System..... | 2,798,476 | 2,909,190 | 3,162,142 | 3,740,760 | 4,160,925 |
| Northern Ontario Properties— | | | | | |
| Northeastern Division..... | 283,958 | 309,100 | 332,706 | 366,458 | 391,442 |
| Northwestern Division..... | 247,852 | 262,356 | 283,896 | 329,122 | 356,737 |
| Totals..... | 3,330,286 | 3,480,646 | 3,778,744 | 4,436,340 | 4,909,104 |

22.—Growth of The Hydro-Electric Power Commission of Ontario, Years Ended Oct. 31, 1947-49 and Dec. 31, 1950-56

| Year | Municipalities Served | Ultimate Customers Served Directly or Indirectly | Total Power Distributed ¹ | Assets of Commission and Municipal Utilities |
|-----------|--------------------------|--|---|--|
| | No. | No. | kw. | \$ |
| 1947..... | 944 | 952,853 | 2,003,139 | 610,133,232 |
| 1948..... | 970 | 1,004,127 | 1,887,317 | 708,708,622 |
| 1949..... | 1,017 | 1,078,221 | 2,150,231 | 898,466,484 |
| 1950..... | 1,132 | 1,187,117 | 2,714,565 | 1,080,200,039 |
| 1951..... | 1,175 | 1,249,366 | 2,945,990 | 1,261,739,406 |
| 1952..... | 1,244 | 1,317,249 | 3,330,286 | 1,442,511,467 |
| 1953..... | 1,279 | 1,389,750 | 3,480,646 | 1,687,947,082 |
| 1954..... | 1,301 | 1,467,034 | 3,778,744 | 1,893,311,970 |
| 1955..... | 1,325 | 1,540,011 | 4,436,340 | 2,040,174,745 |
| 1956..... | 1,340 | 1,612,049 | 4,909,104 | 2,293,492,487 |

¹ Sum of the maximum 20 minute coincident peak loads (primary plus secondary) of each of the systems operated by the Commission, given in terms of net output of the sources of supply to each System for the last month of each fiscal year.

Manitoba.—The Manitoba Power Commission was established in 1919 for the purpose of distributing electric energy throughout the Province, with the exception of the Metropolitan Winnipeg area. An agreement, signed in 1955 by the Manitoba Hydro-Electric Board, the City of Winnipeg, the Winnipeg Electric Company and The Manitoba Power Commission, provided for the acquisition by the Commission of the distribution properties of the Winnipeg Electric Company and of the City of Winnipeg Hydro Electric System in the suburban areas adjacent to the city. The transfer of these properties became effective Apr. 1, 1955. The utility currently operates under The Manitoba Power Commission Act (R.S.M. 1954, c. 203), as amended.

The Commission's supply of electric energy for distribution is purchased from The Manitoba Hydro-Electric Board at various points in or near Winnipeg. The Commission has gradually acquired virtually all the municipally owned and local privately owned distributing plants within the Province and now supplies service from a widespread network of transmission lines. The Commission's program of rural electrification which was started in the late 1930's and was designed to bring hydro-electric power at uniform service rates to all rural centres with a population of 20 or over, is now completed and currently serves 521 centres. The farm electrification program, recommended by the Manitoba Electrification Enquiry Commission in 1942 and begun in 1945, was successfully completed as an area coverage project in 1953. The Commission now serves over 43,000 farms.

Now that Manitoba is Western Canada's most completely electrified province, the Commission is placing special emphasis on long-range programs designed to keep progress with the future electrical needs of the Province.

Saskatchewan.—The Saskatchewan Power Corporation, established Feb. 1, 1949, operates under the provisions of the Power Corporation Act, 1950 (S.S. 1950, c. 10), as amended. It succeeded the Saskatchewan Power Commission which operated from Feb. 11, 1929 to Jan. 31, 1949. The main functions of the Corporation are the generation, transmission, distribution, sale and supply of hydro and steam electric energy. Since 1952 the Corporation has been authorized to produce or purchase, and to transmit, distribute, sell and supply power from natural or manufactured gas.

Particulars of the operations of the Saskatchewan Power Commission during the period 1929 to 1948 and of the operations of the Saskatchewan Power Corporation during 1949 to 1955 are given in earlier editions of the Year Book.

The Corporation is experiencing extensive growth. In 1956 it served 796 urban communities (with six or more customers) in retail sales and the urban communities of Saskatoon, Swift Current and Battleford in bulk sales. Activities of the Corporation are extended to the entire Province with the exception of such cities as Regina and Weyburn, which own and operate municipal plants and distribution systems, and Moose Jaw where the local plant and distribution system is owned and operated by National Light and Power Company Limited. A number of small communities, the largest being the town of Kamsack, are not yet served by the Saskatchewan Power Corporation. Some of these utilities, mostly privately owned, were taken over by the Corporation in 1956.

At the end of 1956 the Corporation served 162,594 customers, of whom 27,608 were located in communities which were supplied with power in bulk sales and 134,986 were Corporation retail customers. The latter comprised 96,763 customers in communities considered as urban and 38,223 customers classified as rural, predominantly farmers. During 1956 all these customers absorbed 659,720,877 kwh. of which 622,676,923 kwh. were generated in Corporation plants and 37,043,954 kwh. were purchased in bulk from Regina and from National Light and Power Company utilities. At the end of the year the investment of the Provincial Government in Corporation assets (electric and natural gas) amounted to \$107,485,378.

During 1956 the Saskatchewan Power Corporation owned and operated three steam generating plants (at Estevan, Prince Albert and Saskatoon) and eight diesel plants with capacity of over 500 kw. each (at Hudson Bay, Maple Creek, Meadow Lake, Shaunavon,

Swift Current, Unity, Kindersley and Yorkton). The total plant capability at the end of 1956 was assessed at 202,950 kw., of which 170,000 kw. was located in steam plants and 32,610 kw. in diesel plants.

At the end of 1956 the Corporation owned and operated 41,444 miles of transmission and rural lines. Of this total 9,150 miles of line were added to the system in 1956 comprising 117 miles of 138,000-volt line, 180 miles of 72,000-volt line, 387 miles of 25,000-volt line, and 8,466 miles of 14,400-volt line in connection with rural electrification. Large substations were built in 1956 with a total capacity of 44,200 kva.

23.—Growth of the Saskatchewan Power Corporation 1947-56

NOTE.—Figures for 1929-33 are given at p. 499 of the 1947 Year Book and for 1934-46 at p. 578 of the 1950 edition.

| Year | Communities Served in Bulk and Retail Sales | Individual Meters in Communities Served | Power Distributed | Revenue |
|-----------|---|---|-------------------|------------|
| | No. | No. | kwh. | \$ |
| 1947..... | 320 | 63,805 | 160,420,859 | 4,442,507 |
| 1948..... | 366 | 71,009 | 186,834,305 | 5,058,142 |
| 1949..... | 420 | 78,389 | 202,135,947 | 5,629,372 |
| 1950..... | 454 | 84,361 | 235,926,656 | 6,363,597 |
| 1951..... | 535 | 93,923 | 278,826,919 | 7,159,876 |
| 1952..... | 582 | 107,942 | 332,674,176 | 8,553,619 |
| 1953..... | 631 | 122,676 | 398,211,673 | 10,363,752 |
| 1954..... | 664 | 134,587 | 472,763,014 | 11,936,234 |
| 1955..... | 742 | 149,134 | 556,776,981 | 13,350,177 |
| 1956..... | 799 | 162,594 | 659,720,877 | 15,566,910 |

Alberta.—Public ownership of power generating and distributing systems in Alberta is confined to certain urban municipalities. The regulatory authority over privately owned systems is the Board of Public Utility Commissioners which has jurisdiction over the distribution and sale of electricity. The Board has power to hold investigation upon complaint made either by a municipality or by a utility company and, following such investigation, may fix just and reasonable rates.

There are three private utility services in the Province: Calgary Power Limited, Canadian Utilities Limited, and Northland Utilities Limited. A synopsis of these services is given below.

Calgary Power Limited.—This Company has eleven hydro generating plants on the Bow River and its tributaries, west of Calgary, namely: Horseshoe Falls, Kananaskis Falls, Ghost River, Cascade, Barrier, Spray, Rundle, Three Sisters, Bears paw, Pocaterra, and Interlakes. The Company also operates a steam plant of 88,000 h.p. at Wabamun, west of Edmonton. At Dec. 31, 1956, the Company's total plant capacity was 374,450 h.p. All the hydro plants except Bears paw are operated by remote control from the Kananaskis Falls plant.

The Company has five reservoirs on the Bow River and its tributaries:

| | |
|---|-------------------|
| Lake Minnewanka..... | 180,000 acre-feet |
| Interlakes (Upper Kananaskis Lake)..... | 100,000 acre-feet |
| Pocaterra (Lower Kananaskis Lake)..... | 50,000 acre-feet |
| Spray Lakes..... | 200,000 acre-feet |
| Ghost..... | 74,000 acre-feet |

An agreement with the City of Medicine Hat provides an additional 33,500 h.p. to the Company from the city's steam plant. Power from these plants is fed into a transmission network which supplies the entire electricity requirements of the cities of Calgary, Red Deer and Wetaskiwin, about 408 towns, villages and hamlets, and a substantial

industrial load in central and southern Alberta. This transmission network is also connected with the municipal utilities of the cities of Edmonton and Lethbridge, Canadian Utilities Limited at Drumheller, Vegreville and Vermilion, and the East Kootenay Power Company in the Crowsnest Pass.

During 1957 an addition to the hydro system is scheduled for completion; this is an extension to the Cascade plant of 23,000 h.p. The Company has about 4,300 miles of main transmission lines and 2,126 miles of distribution lines extending from Plamondon in the north, Milk River and Waterton in the south, and from Chauvin, Macklin (Sask.), Brooks and Bow Island in the east, to Nordegg, Banff and Crowsnest Pass in the west. The cities of Calgary and Red Deer, and the towns of Ponoka, Fort Macleod and Cardston are supplied on a wholesale basis, but all other points on the same system are supplied on a retail basis. At Dec. 31, 1956, electric pumping service was being supplied to over 2,500 oil wells, as well as service directly to other sectors of the oil industry, such as gathering stations, refineries and pipeline pumping. Service was also provided to several industrial plants near Edmonton.

An extensive farm electrification program is in progress in Alberta and at Dec. 31, 1956, the Company was serving 27,096 farms. Calgary Power constructs, operates and provides for the engineering of these co-operatives through a non-profit subsidiary (Farm Electric Services Limited), energy being supplied to the farm co-operative consumers at cost.

Canadian Utilities Limited.—Towns and villages to the north, east and west of Drumheller, and to the north and east of Vegreville are supplied by three inter-connected plants at Battle River, Vermilion and Drumheller. The Battle River plant has a 32,000-kw. coal-fired steam unit; the Vermilion plant has an 8,500-kw. gas turbine and 9,000 kw. in gas-fired steam equipment; and the Drumheller plant has 19,000 kw. in coal-fired steam equipment. Towns and villages north, east and west of Grande Prairie are served by two internal combustion plants. One, situated in Fairview, has 1,200 kw. in a natural gas unit—the other in Grande Prairie has 5,700 kw. in diesel and gas-diesel installations. Towns and villages south of Lesser Slave Lake are supplied by diesel installations totalling 390 kw. at Kinuso and Slave Lake. In addition, a 10,000-kw. gas turbine plant near Sturgeon Lake is to be completed in 1957, which will supply both Grande Prairie and Slave Lake areas. The Company's plant in Fort St. John, B.C., was sold in 1956.

There are tie lines with Calgary Power Limited at Vermilion, Vegreville and Drumheller; and with Northland Utilities Limited at Fairview and Valleyview. The Company serves over 36,200 customers in approximately 330 towns, villages and hamlets (including 111 rural electrification associations) through a network of approximately 3,118 miles of transmission and distribution lines, in addition to 7,427 miles of Rural Association lines. Since 1949, rural electrification in the territory served has been extended to farmers on a co-operative basis whereby the farm or rural electrification association system is constructed and operated at cost for the farmer by the Company. Over 8,000 farmers are receiving electric power service. In 1957, the Company purchased control of the McMurray Light and Power Company, Limited, operating a 300-kw. diesel installation serving the town of McMurray.

Northland Utilities Limited.—This Company, with headquarters at Edmonton, supplies electric service to 6,500 customers located in 36 communities. Diesel generating plants are located in Jasper, Athabasca, High Prairie, Fort Vermilion, McLennan, Peace River, Fairview, Lac La Biche and in Hay River, N.W.T.

A hydro generating plant supplies additional power at Jasper and through 250 miles of 24,000-volt transmission line serves 27 other communities. In addition, approximately 1,200 miles of farm line owned by rural co-operatives serve 1,000 farm customers. A Northland Utilities subsidiary, Uranium City Power Company Limited, generates and distributes electricity to 450 customers in Uranium City, Sask.

Natural gas is supplied to 3,000 customers in 12 communities in Northern Alberta—Fairview, Bluesky, Whitelaw, Brownvale, Berwyn, Grimshaw, Grande Prairie, Spirit River, Sexsmith, Rycroft, Woking and Clairmont.

A subsidiary, Northland Utilities B.C. Limited, supplies gas to 2,200 customers in Dawson Creek and Pouce Coupe, B.C.

British Columbia.—The British Columbia Power Commission was appointed Apr. 17, 1945, under the provisions of the Provincial Electric Power Act. Operations were commenced in August of the same year with the acquisition of electrical properties in several parts of the Province. The following statement shows the growth in the number of customers from 1948 to 1957:—

| <i>Year Ended Mar. 31</i> | <i>Services Acquired</i> | <i>Services Installed</i> | <i>Total Services for Period</i> | <i>Cumulative Services to End of Period</i> |
|-------------------------------|------------------------------|-------------------------------|--|---|
| | No. | No. | No. | No. |
| 1948..... | 1,000 | 3,431 | 4,431 | 27,470 |
| 1949..... | 831 | 3,318 | 4,149 | 31,619 |
| 1950..... | 4,686 | 3,321 | 8,007 | 39,626 |
| 1951..... | 473 | 4,075 | 4,548 | 44,174 |
| 1952..... | 103 | 2,600 | 2,703 | 45,912 |
| Sold June 1951..... | -325 | -640 | -965 | |
| 1953..... | — | 3,597 | 3,597 | 49,509 |
| 1954..... | — | 3,264 | 3,264 | 52,773 |
| 1955..... | 523 | 3,261 | 3,784 | 56,557 |
| 1956..... | 406 | 4,382 | 4,788 | 61,345 |
| 1957..... | 4,676 | 5,525 | 10,201 | 69,574 |
| Sold May 1956..... | -337 | -1,635 | -1,972 | |

Continued expansion in generating capability, transmission and distribution plant, power requirements, installed services and revenues marked the year ended Mar. 31, 1957. A 23.2-p.c. rise in revenues compared favourably with a 16.8-p.c. increase in expenditures. The resulting operating surplus was \$1,531,937 (before provision for hydro deficiency) an increase of 96.9 p.c. over the 1955-56 operating surplus. Details of construction under way are given on pp. 566-567.

24.—Growth of the British Columbia Power Commission, Years Ended Mar. 31, 1953-57

| Item | 1953 | 1954 | 1955 | 1956 | 1957 |
|--|--------------------|--------------------|--------------------|--------------------|----------------------|
| Customers..... No. | 49,509 | 52,773 | 56,577 | 61,345 | 69,574 |
| Installed plant capacity..... kw. | 124,415 | 174,255 | 176,866 | 211,366 | 284,435 |
| Circuit Miles of Line— | | | | | |
| Transmission (high voltage).... miles | 590 | 624 | 689 | 795 | 1,009 |
| Distribution primaries..... " | 2,704 | 2,995 | 3,301 | 3,781 | 4,147 |
| Power Requirements— | | | | | |
| Generated..... kwh. | 524,502,927 | 687,158,106 | 812,793,062 | 955,007,458 | 1,058,915,734 |
| Purchased..... " | 2,350,721 | 9,962,128 | 12,016,339 | 24,023,708 | 25,668,700 |
| Totals, Power Requirements... kwh. | 526,853,648 | 697,120,234 | 824,809,401 | 979,031,166 | 1,084,584,434 |
| Annual revenue..... \$ | 5,902,344 | 7,103,853 | 8,227,331 | 9,730,576 | 11,992,259 |
| Capital Investment (plant in operation)— | | | | | |
| Generation plant..... \$ | 26,488,225 | 33,678,194 | 35,100,468 | 44,741,367 | 55,595,538 |
| Transmission plant..... \$ | 10,292,920 | 11,686,982 | 13,204,511 | 15,289,408 | 20,639,658 |
| Distribution and general plants.. \$ | 14,201,418 | 15,957,640 | 18,095,779 | 21,791,399 | 25,783,408 |
| Totals, Capital Investment (plant in operation)..... \$ | 50,982,563 | 61,322,816 | 66,400,758 | 81,822,174 | 102,018,604 |

Sources of power for the year ended Mar. 31, 1957, were as follows:—

| <i>Source</i> | <i>kwh.</i> | <i>p.c.</i> |
|----------------------------|----------------------|--------------|
| Hydro-electric..... | 949,348,809 | 87.5 |
| Diesel-electric— | | |
| Oil fuel..... | 89,970,827 | 8.3 |
| Gas fuel..... | 19,596,098 | 1.8 |
| Purchased..... | 8,637,490 | 0.8 |
| Inter-utility imports..... | 17,031,210 | 1.6 |
| TOTALS | 1,084,584,434 | 100.0 |

The Northwest Territories and Yukon Territory.—The Northern Canada Power Commission was created by Act of Parliament in 1948 to bring electric power to points in the Northwest Territories where a need developed and where power could be provided on a self-sustaining basis. By legislation passed in 1950 the Act was extended to include Yukon Territory. The name of the Commission, formerly Northwest Territories Power Commission, was changed in 1956.

The Northern Canada Power Commission has authority to construct and operate power plants as required in a territory having an area of over 1,500,000 sq. miles. The Commission is continually investigating power needs in this large area and studying reports on hydro-electric power sites.

The Commission has a hydro-electric power development in operation on the Snare River about 94 miles northwest of Yellowknife, N.W.T., from which power has been supplied to the mines in the Yellowknife area since the autumn of 1948. In the summer of 1949 a transmission line connection was completed to augment the supply of power to the town of Yellowknife.

A diesel generating station and distribution system was put into operation at Fort Smith, N.W.T., in October 1950, and at Fort Simpson in October 1956. These projects supply the various Government establishments such as the Departments of Northern Affairs and National Resources, Transport, National Defence (RCCS), Health and Welfare, and Public Works as well as the Royal Canadian Mounted Police and private commercial consumers and residents of the settlements.

A hydro-electric development on the Mayo River approximately six miles north of Mayo Landing, Y.T., completed in December 1952, delivers power to the mining developments in that area and to the settlement of Mayo Landing. Current construction is outlined at p. 568.

Section 3.—Total Development of Electric Power from All Sources

In Section 1 of this Chapter, water power resources are given with the proportion that so far has been developed. Table 3 of that Section analyzes the hydraulic turbine installation by the proportions in central electric stations, in pulp and paper mills and in other industries. This is useful but does not take into account electric power developed in central electric stations or in other industries from sources other than hydraulic.

Section 2 covers the central electric station industry including stations under public ownership (provincial and municipal governments) and those under private ownership. Neither of these Sections, however, gives a complete presentation of the total electric power developed in Canada. All the hydraulic energy developed is not converted to electric power: there are a number of water wheels and water turbines used for direct drive that are not geared to electric generators. On the other hand certain central electric stations in the Atlantic Provinces, Ontario and the Prairie Provinces generate electricity from steam or internal combustion engines. It is the purpose of this Section to show the total electric power generated from all available sources. Most of the power comes, of course, from central electric stations, the figures having been given in Table 4 of Section 2, p. 568. The total kilowatt hours of electric power generated by central electric stations, is divided into that generated from water power and that generated from thermal engines of all kinds.

Table 25 shows that total electric power generated by central electric stations in 1955 was 72,910,592,000 kwh. For a complete presentation, the power generated by manufacturing industries for their own use and the power generated by the primary mining industry for use in its own operations must be added. There are a few other sources of electric energy included such as electric railways which produced 8,463,000 kwh. in 1955. This production has been taken into the annual total shown in Table 25. There are

numerous small lighting and power plants on farms, rural homes, summer resorts, stores, etc., where electricity from central electric stations is not available and for which no data are available.

25.—Total Power Generated by Central Electric Stations, Manufacturing and Mining Industries 1946-55

NOTE.—Figures for the years 1927-43 will be found in the 1948-49 Year Book, p. 516 and for 1944 and 1945 in the 1956 edition, p. 582.

| Year | Central Electric Stations | | Manufacturing Industries | | Mining Industries | | Total ¹ |
|-----------|---------------------------|-------|--------------------------|-------|-------------------|-------|--------------------|
| | '000 kwh. | p. c. | '000 kwh. | p. c. | '000 kwh. | p. c. | '000 kwh. |
| 1946..... | 41,736,987 | 93.4 | 2,714,261 | 6.1 | 199,950 | 0.4 | 44,662,916 |
| 1947..... | 43,424,799 | 92.1 | 3,467,535 | 7.4 | 269,412 | 0.6 | 47,174,384 |
| 1948..... | 42,389,681 | 89.7 | 4,590,677 | 9.7 | 270,522 | 0.6 | 47,262,060 |
| 1949..... | 44,418,573 | 87.8 | 5,898,390 | 11.7 | 263,835 | 0.5 | 50,592,990 |
| 1950..... | 48,493,718 | 88.1 | 6,266,051 | 11.4 | 264,232 | 0.5 | 55,036,765 |
| 1951..... | 54,851,844 | 89.3 | 6,369,094 | 10.4 | 212,832 | 0.3 | 61,446,787 |
| 1952..... | 59,409,198 | 89.9 | 6,450,729 | 9.8 | 234,431 | 0.3 | 66,103,533 |
| 1953..... | 62,860,927 | 89.8 | 6,901,443 | 9.9 | 215,337 | 0.3 | 69,988,286 |
| 1954..... | 65,936,440 | 89.1 | 7,628,365 | 10.3 | 398,488 | 0.5 | 73,976,639 |
| 1955..... | 72,910,592 | 88.0 | 9,432,663 | 11.4 | 463,860 | 0.6 | 82,815,578 |

¹ Includes power generated by electric railways for their own use.

CHAPTER XIII.—THE FISHERIES

CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

Section 1.—Canadian Commercial Fisheries Resources

Canada has the enviable position of being the country closest to some of the world's most prolific fishing grounds and as a consequence is one of the world's principal fish producers and fish exporters. Rich harvests are drawn from the Atlantic and Pacific as well as from the country's many freshwater lakes and rivers.

Canada's commercial fisheries resources, including a detailed account of the Atlantic, the Pacific, the freshwater and the northern fisheries, are covered in the 1955 Year Book, pp. 578-590. The following special article deals in detail with groundfish, the most important species of Canadian fisheries.

GROUNDFISH SPECIES IN THE CANADIAN FISHERIES*

Demersal or groundfish species are the most important group in the Canadian fisheries, accounting for almost one-half by volume and one-third by value of the catch of all species of fish and shellfish. This species is particularly important to the Atlantic fisheries where it makes up two-thirds or more by weight and one-half by value of the total catch. The proportion in British Columbia is around 5 p.c. of the volume and 12 to 18 p.c. of the value.

* Prepared by T. H. Turner, Director of Information, Department of Fisheries, Ottawa.

VOLUME AND VALUE OF GROUNDFISH LANDINGS, AND PROPORTION OF TOTAL CATCH, 1956

| Area | Volume | | | Value | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------------|-------------------------|-------------------------------------|-----------------------------------|
| | Groundfish ¹ | All Fish and Shellfish ² | Groundfish as Percentage of Total | Groundfish ¹ | All Fish and Shellfish ² | Groundfish as Percentage of Total |
| | '000 lb. | '000 lb. | p.c. | \$'000 | \$'000 | p.c. |
| Atlantic Provinces..... | 989,373 | 1,348,691 | 73 | 26,774 | 53,046 | 50 |
| Newfoundland..... | 487,314 | 568,337 | 86 | 11,419 | 13,896 | 82 |
| Maritimes and Quebec..... | 502,059 | 780,354 | 64 | 15,355 | 39,150 | 39 |
| British Columbia..... | 41,439 | 674,354 | 6 | 6,154 | 35,846 | 17 |
| Inland (freshwater)..... | — | 111,000 | — | — | 13,600 | — |
| CANADA..... | 1,030,812 | 2,134,045 | 48 | 32,928 | 102,492 | 32 |

¹ Includes halibut and other flatfish species together with cod, haddock, hake, pollock, cusk, redfish, wolf-fish, dogfish, and Pacific "cod" species and rockfishes.

² Excludes fish livers, seaweeds, bait worms and seals.

In the Atlantic fishery cod is first in landed value followed by haddock, and on the Pacific Coast halibut is by far the most important of the groundfish. Halibut and other flatfish species, although true groundfish, are not always classed as such in commercial usage. For instance, a United States tariff classification of groundfish fillets includes only cod, haddock, hake, pollock, cusk and rosefish (the latter is usually called redfish and marketed as ocean perch). In addition to these, Atlantic groundfish species include wolffish (ocean catfish), turbot (Greenland halibut), skate and dogfish. The sub-group of small flatfishes includes American plaice, witch or grey sole, winter flounder and yellow-tail flounder in Atlantic waters, and Pacific species such as lemon sole, rock sole, butter sole, brill and Dover sole. Other Pacific groundfish are grey cod, lingcod, blackcod or sablefish, various rockfishes (including those designated red snapper and ocean perch) and dogfish.

STOCKS AND THEIR UTILIZATION

The annual catch by Canada and other nations is estimated to take about 15 p.c. of the combined total stocks of groundfish on the Atlantic Continental Shelf and 6 or 7 p.c. of Pacific groundfish stocks off Canadian shores. Some individual species such as haddock, the Pacific rockfishes, blackcod and grey cod are being exploited quite heavily but the annual catch of others, such as dogfish, represents a negligible proportion of the existing stock. The degree of exploitation or utilization is, of course, closely related to the demand for the species as expressed by the price the fisherman is able to obtain for his catch to the cost of landing that catch. The cost of production at any given level of exploitation is governed by many factors—the prospective and realized returns to capital investment necessary to secure and maintain in the fishery the requisite boats, gear and working capital; the returns to labour necessary to retain the requisite number of fishermen in the industry; and the location, size and density of the fish stocks that are being exploited.

An unexploited stock tends to become so dense that growth is slow and natural mortality is high. Thus, more intensive fishing may have the somewhat paradoxical effect of reducing the size of the stock yet raising the level of sustained yield, as removal of the larger and older fish increases the rate of growth or the rate of reproduction of the stock, or both. Furthermore, if a stock is being overfished, less intensive fishing may raise both the size of the stock and the level of sustained yield. On these grounds, an increased annual catch is considered possible, with appropriate fisheries management and conservation policies, for Pacific halibut, lingcod and small flatfish, and for most of the Atlantic groundfish species except haddock.

The Atlantic species are dominant in the groundfish group, constituting 85 to 90 p.c. of the combined groundfish stocks and supplying an even greater proportion of the volume of Canada's annual groundfish catch. However, because of the large amount of relatively high-priced halibut in the Pacific catch, the Atlantic species constitute a smaller proportion of the value of groundfish landings—about 80 p.c. At present rates of utilization, the Atlantic groundfish stocks as a group show a higher potential for increased yield.

The richest fishing grounds lie within the 250-fathom depth contour on the Continental Shelf. Shallow-water "banks" are found many miles from shore on the Atlantic side but, because of the mountainous, steeply sloping character of the British Columbia coastline, the shallow-water area there is much narrower, although exceptionally well sheltered. The concentration of various species of fish in these coastal waters near to shore is the basis for a fishing industry in which costs are low enough to serve mass food markets with many groundfish products, such as frozen fillets for the North American trade and dried salted cod for the Caribbean and southern European countries.

Atlantic groundfish are caught inshore all along the coast and offshore in the Gulf of St. Lawrence, on the Grand Bank of Newfoundland and on various banks east of Labrador and Newfoundland and east and southeast of Nova Scotia and the State of Maine. They are caught by small and large craft, using principally line gear with baited hooks (hand-lines and long-lines) and drag-nets (otter-trawl and Danish seine) according to the suitability of the method: line gear is unsuitable for species with small mouths and

drag-nets cannot be used over very rough-bottomed fishing grounds. Trap-nets are used in some locations such as the east coast of Newfoundland, where heavy inshore runs of certain species (chiefly cod) occur.

ATLANTIC SPECIES

The Atlantic cod (*Gadus callarius*) is found on both sides of the north Atlantic Ocean, but so dense have been the stocks of the western Atlantic that several European countries have fished them ever since the Cabots discovered Newfoundland in 1497. Cod has long been the basis of the salted fish industry and later of fresh and frozen fillet production in New England, Quebec, Newfoundland and Nova Scotia, and on a smaller scale in New Brunswick and Prince Edward Island. Cod is found in North American waters from Greenland in the Arctic almost to Cape Hatteras in southern United States and it constitutes nearly two-thirds of the known groundfish resources in those waters. In recent years, almost one-half of the total volume of Canadian Atlantic fish and shellfish landings has been cod; of the total landed value, cod contributed just under 30 p.c. Its importance to the Newfoundland fishing industry is particularly great—about two-thirds of the total value of Newfoundland fishermen's landings. The annual catch by all nations is estimated to take only about 16 p.c. of present cod stocks in North American waters. There is every likelihood of expansion in the annual harvest to meet the needs of growing populations.

Haddock, taken mostly with drag-nets from the Grand Bank to Cape Cod, is at present next to cod in commercial importance. The use of mechanical filleting equipment in recent years has enabled processors to utilize younger and smaller haddock—much of it processed into frozen blocks for later conversion into breaded fish sticks. The catch has been increased in consequence to an estimated 42 p.c. of current stocks. This is expected to cause a substantial reduction in the stocks and, eventually, in the annual catch.

Redfish rank third in importance among the Atlantic groundfish species. They are taken exclusively with drag-nets in deep cold water from New Jersey to Labrador, chiefly in the Gulf of Maine off the coast of Nova Scotia, and west and south of Newfoundland. The development of the redfish fishery is comparatively recent, coincident with the growth of the market for frozen ocean perch fillets, particularly in the American mid-west. The species is slow growing and, although some of the more remote northern grounds remain unexploited and although new stocks may be found, the total stocks are expected to diminish. Some increase in annual yield, however, is probable as the older fish are removed and the food supply is improved for those remaining.

Landings of Atlantic halibut in recent years have ranked close to those of redfish in value although stocks and annual catch are less than one-tenth of those of the Pacific Coast. The catch is taken in deep water throughout the Atlantic area, mainly by long-liners but to some extent incidentally by druggers. Although present utilization is only about 10 p.c. of the stocks, little change in the intensity of fishing is expected.

The small flatfishes—plaice, witch, winter flounder and yellowtail flounder—are marketed usually as sole fillets. American plaice are found from Long Island, New York, to the Arctic; the others are more localized. All are caught with otter-trawl and Danish seine but plaice may also be taken with line gear. The total catch of small flatfishes could be increased even if some reduction in the total stock resulted.

Pollock, hake and cusk are sometimes statistically included with cod and haddock as related species. All are found in the more southerly parts of the Canadian Atlantic Coast area. Pollock are taken with line gear and marketed chiefly in the dried salted form; cusk and the hake are seldom concentrated and so are usually caught incidentally with other groundfish species. Cusk is a food-fish of excellent quality but hake softens quickly, even when iced, which makes their processing difficult and, in consequence, large quantities are discarded at sea. Silver hake or whiting is a southern species and may move out of Canadian waters if the ocean temperature grows colder, but white hake and squirrel hake

are found throughout much the same region as pollock. The development of a stronger market for groundfish products could be expected to lead to increased utilization of these species.

The common or striped wolffish occurs mainly in the southern part of the Atlantic Coast area and the spotted wolffish farther north. Wolffish are, like cusk, excellent food-fish, being marketed chiefly as ocean catfish filets, but the density of stocks is low and they are usually caught incidentally in line fishing or dragging for other species. Like halibut, the wolffish would be taken more intensively only if there were a substantial increase in their price relative to cod prices.

Turbot, or Greenland halibut, is a flatfish species caught with line gear principally along the northeast coast of Newfoundland. At present it is salted and dried, but expansion of the fishery could follow development of facilities to market it in fresh or frozen forms.

There are substantial stocks of skate and dogfish in Atlantic waters but little use is being made of either, although both species could be utilized for food or for reduction into fish meal and oil. Some skate is caught incidentally but there is no demand for dogfish as a food, and evidently a fishery for reduction purposes would not pay in the present state of technology and demand for the products.

PACIFIC SPECIES

Pacific halibut are found on the Continental Shelf from the Aleutian Islands to Juan de Fuca Strait, mostly in depths of 30 to 250 fathoms. Line gear is used mainly but some are taken by trolling. The bulk of the catch is marketed in frozen dressed form. The total catch of about 60,000,000 lb. annually, of which the Canadian portion is somewhat less than 40 p.c., is estimated to be about 9 p.c. of stocks. On the basis of the recovery of the stocks over the past twenty years, a moderate increase in exploitation is considered feasible. The fishery is under the control of an international commission under the Northern Pacific Halibut Convention of 1953 between Canada and the United States, the first agreement for joint regulation of the halibut fishery having been signed in 1924. An annual catch quota has been maintained and competition among fishermen for a higher share of the quota has resulted in a pronounced increase in the size and efficiency of the halibut fleet.

The grey cod is the true cod of the Pacific and is related to the cod of the north Atlantic. The species is abundant in Hecate Strait and off the west coast of Vancouver Island. Otter-trawlers account for the greater part of the catch but small quantities are taken incidentally by line fishermen. The catch is landed dressed and then filleted for freezing, but some is sold in the fresh market or smoked. Canadian annual landings of grey cod are 4,000,000 to 5,000,000 lb.—less than one-half of the total catch.

The blackcod or sablefish is not a true cod but a member of the skilfish family. Most of it is taken in the off-season for halibut, with line gear in deep water at 70 to 250 fathoms off the Queen Charlotte Islands and the coast of Alaska. The major part of the catch is smoked. The Canadian catch of about 1,500,000 lb. is one-quarter of the total.

The lingcod is one of the larger commercial fish of the Pacific Coast, found from California to Alaska in both shallow and deep water. The greater part of the British Columbia catch is taken with line gear but some is taken by jigging and with otter-trawls. Lingcod are marketed either fresh or frozen, whole or filleted. The liver oil has a high vitamin A content. The volume of catch as well as the price received by the fisherman has varied widely from year to year.

There are 23 or 24 species of rockfish on the British Columbia coast, of which about ten have been fished quite heavily during the past decade for the fresh and frozen fillet trade and for fish stick production. They are taken over a wide range of depths up to 300 fathoms with hand-line, long-line, and trawls. The annual catch is about 9,000,000 lb.—but only 10 p.c. of it by Canadian vessels. Rockfishes are slow growing and it is unlikely that the present catch rate, based upon accumulated stocks of older, larger fish, can be long maintained.

About sixteen species of flatfish, in addition to halibut, are found in British Columbia waters. Although they belong to the flounder and dab families, they are popularly known as 'soles'. The largest is the brill and other important species are the lemon sole and rock sole or 'rough-back'. These species are caught extensively off the west coast of Vancouver Island, in Queen Charlotte Sound, in Hecate Strait and in Georgia Strait and are marketed as fresh or as frozen sole fillets. The stocks could support an increase in catch but, as with the other Pacific groundfish except halibut, an increase would make little difference in the total Canadian groundfish catch.

Dogfish belong to the shark family and in their predatory activities cause great damage to fishing gear and netted fish. The Pacific dogfish industry reached a peak in 1944 when there were nearly 8,000,000 lb. of dogfish livers landed worth \$2,700,000 plus an additional amount for meal and fertilizer. In the past decade, however, competition from Japanese liver products and the development of synthetic vitamin A have caused a decline in the industry. The consequent increase in dogfish stocks has brought requests for a subsidy to assist a fishery for meal and oil as a means of reducing the damage done by dogfish to other fisheries.

During the past five years there has been a rapid growth of a British Columbia trawl fishery specifically for scraphish for fur farms, as the demand for mink feed outgrew the supply of horse meat and fillet scraps. This fishery concentrates on the turbot or arrowtooth sole and, when winter weather prevents fishing on the more exposed grounds, on the whiting or big-eye. Smaller quantities of hake and other species are also utilized.

Section 2.—Governments and the Fisheries

The British North America Act gave the Federal Government full legislative jurisdiction for the coastal and the inland fisheries of Canada and under this Act laws are made for the protection, conservation and development of the fisheries throughout the country. However, the provinces have, by agreement, assumed administrative responsibilities in varying degree. Consequently, though all the regulations governing fishing are made by the Federal Government, the work of administering the fisheries (enforcing the different laws and regulations, inspecting fish products, issuing licences, etc.) is done without duplication of staff either by federal or by provincial officers, according to arrangement.

Specifically, all tidal or sea fisheries except those of the Province of Quebec are administered by the Federal Department of Fisheries, and the freshwater or non-tidal fisheries with some exceptions are administered by the provincial departments. Quebec takes responsibility for all its fisheries including those in salt waters. Ontario, Manitoba, Saskatchewan and Alberta look after their freshwater species. In British Columbia provincial government control extends to the freshwater forms and the Federal Government is responsible for marine and anadromous species. In Prince Edward Island, Nova Scotia, New Brunswick, Newfoundland and the Yukon and Northwest Territories, the Federal Government maintains complete control; administration of the fisheries of the National Park areas throughout Canada is the responsibility of the Canadian Wildlife Service, Department of Northern Affairs and National Resources. (*See pp. 27-28.*)

Subsection 1.—The Federal Government*

The work of the Federal Government in the conservation, development and general regulation of the nation's coastal and freshwater fisheries is performed by three agencies under the Minister of Fisheries:—

- (1) The Department of Fisheries proper with headquarters at Ottawa, Ont., and area offices under Chief Supervisors at Vancouver, B.C., Winnipeg, Man., Halifax, N.S., and St. John's, Nfld.
- (2) The Fisheries Research Board of Canada with headquarters at Ottawa and eight stations across Canada.
- (3) The Fisheries Prices Support Board with headquarters at Ottawa.

* Revised by the Department of Fisheries, Ottawa.

The Department of Fisheries.—The chief responsibilities of the Department of Fisheries throughout Canada are, in brief: to conserve and develop Canada's primary fishery resources; to encourage the development of the fishing industry in the national economy; to inspect fish products, establish standards of quality and promote the optimum utilization of the resource; and to develop a proper public understanding of the resource and the industry.

The larger part of the staff of the Department is stationed in the field and is composed mainly of protection and inspection officers. The protection officers, including those on the Department's 76 patrol and protection vessels, are concerned with the enforcement of the conservation regulations under the Fisheries Act and other Acts designed to ensure a continuing maximum yield of fish and are also responsible for the inspection of fish products and processing plants under the Fish Inspection Act and relevant section of the Meat and Canned Foods Act.

A conservation program is carried out by the Conservation and Development Service of the Department. Protection officers enforce regulations pertaining to restricted areas, close seasons, limitations in location and types of gear, and also inspect spawning streams and keep them clear of obstructions. Biologists investigate such problems as pollution and water supply, and engineers construct fishways to enable fish to bypass obstructions of all kinds. Hatcheries are maintained to restock waters where the fisheries are under federal administration.

For the past few years a bounty has been paid for the killing of the parasite-carrying harbour seals along the Newfoundland and Labrador coasts at a rate of \$10 for adults and \$5 for young seals. During 1955, 276 adults and 1,435 young seals were destroyed.

Inspection of fish and fish products to ensure a high standard of quality is carried out by the Inspection and Consumer Service, and fish inspection laboratories are maintained on the Atlantic and the Pacific Coasts. This Service also has a staff of home economists who operate test kitchens in Ottawa, Toronto, Vancouver, Montreal and Halifax and conduct demonstrations and lectures on methods of preparing and cooking fish and fish products.

Through the medium of printed material, films, radio, television and exhibitions, the Information and Educational Service of the Department informs the public on the various aspects of the industry and the work of the fisheries service, with the object of developing a better understanding of the resource and those engaged in its exploitation. This Service works closely with the Conservation and Development Service in matters concerning the conservation of fisheries and with the Inspection and Consumer Service toward encouraging increased consumption of Canadian fish products in the United States and other markets.

The Economics Service engages in two related fields of responsibility: (1) to provide the government and the commercial fishing industry with current information, including statistical data, under the general heading of trade intelligence, and (2) to carry out studies and investigations in the primary fisheries and in the processing and distribution of fish products. In the first field, the Service works in close co-operation with the Dominion Bureau of Statistics and the foreign trade branches of the Department of Trade and Commerce; in the second, there is similar collaboration with the Fisheries Research Board. In both, a necessary contribution is made to the formulation of policy for fisheries management, industrial development and market services.

In addition to these regular services the Department assists the commercial fishing industry in several special ways. To promote efficient primary fishing operations and improve the marketing of fishery products, assistance is provided for the construction of dragners and long-liners and for bait-freezing and storage facilities on the Atlantic Coast. For each new trawler built in Canada the owner is permitted a licence to operate a used trawler imported from either the United Kingdom or the United States and registered in Canada after payment of duty. An applicant wanting only one trawler may import a used one from the United Kingdom without having to lay down a new keel in Canada.

This policy applies to ships purchased from any country entitled to most-favoured-nation treatment in accordance with Canada's obligations as a signatory of the General Agreement on Tariffs and Trade.

The Fishermen's Indemnity Plan affords low-cost protection from losses of boats and lobster traps through storms and other causes. The Plan, in operation since 1953, meets a long-standing need on the part of small-scale individual fishermen. Vessels valued at from \$250 to \$7,500 may be insured with payment of a premium of 1 p.c. of the appraised value per annum. Up to Mar. 31, 1956, a total of 2,999 fishing vessels with an appraised value of \$6,062,140 had been insured under the Plan. In response to considerable demand for a similar type of protection against unusual losses of fishing gear and equipment other than vessels, a first step was taken by the introduction of regulations giving a measure of compensation to lobster fishermen suffering abnormal losses of lobster traps, provided that a small premium has been paid by the fisherman. The premium rate varies in accordance with conditions in the various fishing areas of the Atlantic Provinces and Quebec but is generally about 4 p.c. of the value of the traps. Indemnity is provided at about 50 p.c. of the value on losses in excess of the 20 to 25 p.c. normal annual disappearance.

The Department also provides financial assistance to educational institutions agreeing to carry out specialized educational work among fishermen.

The Fisheries Research Board.—The Fisheries Research Board of Canada was established in 1937 to succeed the Biological Board of Canada. The Board functions as the scientific arm of the Department of Fisheries and seeks to improve and expand Canadian fisheries through scientific research. It operates four biological research stations, two oceanographic groups, three technological research stations, an engineering service and a unit which devotes its activities to research on sea mammals and studies of fisheries in the Canadian Arctic. The Board consists of a full-time chairman and up to 18 members appointed by the Minister of Fisheries; the members include Canadian scientists in fields related to the Board's work and businessmen acquainted with fishing and the fish trade.

The biological work of the Board is designed primarily to provide a general scientific basis for the conservation and wise management of Canada's vast marine and freshwater fishery resources. Investigations include the life histories of the various species of commercial importance, their population dynamics, their diseases and enemies. Also investigated are positive cultural methods in areas where some control of the environment is possible, new fishing grounds are sought and experiments in improvement in fishing methods undertaken. The biological work on the Atlantic Coast is conducted by stations at St. Andrews, N.B., and St. John's, Nfld.; Arctic work is directed from Montreal, Que.; work on freshwater fish is directed from a station at Winnipeg, Man.; and Pacific Coast work is directed from a station at Nanaimo, B.C.

Oceanography includes the study of the biological, chemical and physical aspects of the marine and freshwater environments of fish and other aquatic organisms of importance. This information is necessary to understand the occurrence and distribution of the fish and is carried out by the Board's two oceanographic groups, one on each coast.

The technological studies are aimed at making the best use of Canada's fish catches. Investigations are conducted towards improving methods of preserving and processing and in the utilization of fish wastes. In recent years considerable work has been done on mechanization to further develop higher efficiency in the industry. The technological work on the Atlantic Coast is done at stations at Halifax, N.S., and Grand River, Que., and applied engineering work for Newfoundland is under the supervision of a unit at St. John's, Nfld. A station at Vancouver, B.C., undertakes Pacific Coast studies.

The Fisheries Prices Support Board.—Under the Fisheries Prices Support Act, passed in 1944, this Board was set up in July 1947 to recommend to the Government price-support measures when severe price declines occur. The Board functions under the

direction of the Minister of Fisheries and consists of a chairman, who is a senior officer of the Department of Fisheries, and five members chosen from private and co-operative firms in the industry, representative of the various fish-producing regions of Canada.

The Board has authority to buy quality fishery products under prescribed conditions and to dispose of them by sale or otherwise, or to pay to producers the difference between a price prescribed by the Board and the average price the product actually commands. The Board has no power to control prices nor has it any jurisdiction over operations in the fishing industry or the fish trade. Money necessary for dealings in fishery products is available to the Board from the Consolidated Revenue Fund to a maximum aggregate amount of \$25,000,000 but only on recommendation of the Federal Treasury Board and authorization of the Governor in Council.

The Board maintains a small staff for administrative activities. The work is closely integrated with that of the Department's Economics Service and, where possible, services required by the Board are carried out by Department personnel. The Board has carried out field surveys on market conditions and possibilities and on factors affecting the income of fishermen in the various producing areas. The financial position of fishermen is kept under continuous review and recommendations are made to the Government on the basis of the findings. Special investigations are made when serious problems arise in particular areas.

International Fisheries Conservation.—Conservation of the resources of the high seas can be effected only with regulations, and for this purpose international treaties have had to be made. Canada's obligations under such treaties with the United States and other countries are administered by the Department of Fisheries.

Canada and the United States have led the world in joint fisheries conservation development. Major examples of this joint effort are the International Pacific Halibut Convention, concerned with the preservation of the halibut stocks of the north Pacific and the Bering Sea, and the International Pacific Salmon Fisheries Convention, concerned with the conservation and development of the sockeye salmon of the Fraser River. Investigations carried out under the auspices of Commissions appointed under these conventions, subsequent regulation and limitation of catches, and the construction of salmon fishways appear to have been successful in arresting and reversing an earlier trend towards depletion of these fisheries. Another example of restoring a depleted marine resource by international agreement and action is that of the fur seals of the Pribilof Islands in the Bering Sea. Under a treaty signed in 1911, known as the (North Pacific) Sealing Convention, pelagic sealing was prohibited while the animals were migrating to and from the Pribilofs where most of them breed. This treaty had been signed by the United States, Canada, Russia and Japan, and was one of the earliest conventions on resources of the sea. In 1941 Japan abrogated the treaty and the following year Canada and the United States signed a Provisional Fur Seal Agreement under which Canada, in return for abstaining from pelagic sealing, received 20 p.c. of the annual catch, which was supervised by the United States. A conference to re-negotiate the original convention for the management of north Pacific fur seals was begun in Washington in November 1955, with representatives present from the four countries which had been signatory to the 1911 treaty. A new settlement was signed by the original four countries on Feb. 9, 1957.

In 1949 the Government of Canada became a signatory, along with nine other countries, to the International Northwest Atlantic Fisheries Convention which came into force in 1950. The Commission established under this Convention, with headquarters at Halifax, N.S., makes scientific investigations of the fishery resources of the northwest Atlantic. The Commission has no regulatory powers but can make recommendations to the respective governments regarding measures that may be necessary for maintaining the stocks of fish that support the international fisheries in the Convention area. Treaty signatories are: Canada, Denmark, Iceland, the United States, the United Kingdom, France, Italy, Norway, Portugal and Spain.

A step towards international action in regulating the high seas fisheries of the northern Pacific Ocean was achieved in December 1951 when Canada, the United States and Japan conferred at Tokyo. The resulting Convention was ratified by the three contracting governments and instruments of ratification were deposited at Tokyo in June 1953. The treaty is known as the International Convention for the High Seas Fisheries of the North Pacific Ocean and aims at providing the maximum sustained yield of the fishery resources of the northern Pacific non-territorial waters with each of the parties assuming obligations to encourage conservation measures. The Commission established under this Convention will study the northern Pacific fisheries, determine the application of the treaty principles and will promote and co-ordinate the scientific studies necessary for ascertaining conservation programs.

The seventh, and latest, international fisheries agreement to which Canada is a signatory is the Great Lakes Fisheries Convention, which provides for joint action by Canada and the United States in Great Lakes fishery research and in a program for the control of the predator lamprey in these waters. This Convention came into force in October 1955. (*See also pp. 603-604.*)

Canada is a member of the International Whaling Commission and is obligated to collect biological data on whales caught by Canadian vessels. Whaling operations are conducted off the coasts of Newfoundland and British Columbia.

Subsection 2.—The Provincial Governments*

An outline of the work undertaken by each of the provincial governments in connection with administration of commercial and game fisheries is given in the following paragraphs.

Newfoundland.—The union of Newfoundland with Canada on Mar. 31, 1949, brought about a transfer of some responsibilities in fisheries administration. The Newfoundland Fisheries Board remained the agency of government in the supervision of salt codfish marketing but fish and plant inspection, operation of bait depots, etc., became the concern of the federal Department of Fisheries. The Board, formerly responsible to the Government of Newfoundland through the Commissioner for Natural Resources, has been made responsible to the federal Minister of Trade and Commerce.

The Provincial Government is concerned mainly with improvement and development in fishing and production methods and has conducted experiments in long-lining and deep water trawling, in the construction of multipurpose fishing craft and in the exploration of potential fishing grounds. Steps are being taken to secure more efficient use of fisheries salt. Loans have been made available to processors for the establishment or development of fishing fleets and processing plants and to fishermen for the construction and purchase of modern vessels capable of a greater variety of fishing operations and larger production.

In 1951 the Governments of Canada and of Newfoundland set up the Newfoundland Fisheries Development Committee consisting of representatives of fishermen, processors and exporters, and of both Governments. The objective of this Committee was to establish the role of each sector of the industry and each government, jointly or severally, in the organization and development of the fisheries. Action has been taken by both Governments along lines recommended by the Committee in its final report of April 1953. The Newfoundland Fisheries Development Authority was set up by the Government of Newfoundland to carry out the Province's share of the development program, while the federal Department of Fisheries continues to administer provincial fisheries legislation and to undertake development work in collaboration with the Authority.

The inland waters of Newfoundland, though they provide excellent sport fishing, are not commercially exploited to any significant degree. The lakes and ponds remain under the authority of the Natural Resources Branch of the provincial Department of Mines and Resources, but the rivers and streams—the resort of migratory fish such as salmon and

* Prepared by the respective provincial departments responsible for fisheries administration.

sea trout—are under federal jurisdiction. Matters of conservation and guardianship are therefore mainly or wholly the concern of the federal Department of Fisheries although, to the extent to which they affect the ponds and lakes, they are subject to provincial or joint action.

Prince Edward Island.—The sea and inland fisheries of Prince Edward Island are administered by the Federal Government, and the provincial Department of Fisheries supplements federal activity, which is mainly concerned with inspection and conservation, devoting special attention to the development of the fisheries industry.

The major part of the revenue of the commercial fishermen in the Province is from shellfish, particularly lobster. However, in recent years there has been increased activity in deepsea fishing. Sixty-foot draggers are used for deepsea operations and their catch is landed at filleting and reduction plants on the eastern shores of the Island. Inshore fishing is also carried out extensively, the catch from this type of operation being landed at various points around the coast.

Technical assistance to fishermen and the fisheries industry is provided by the Provincial Department and, through the Fishermen's Loan Board, financial assistance is given for the purchase of boats and engines. Loans of up to 50 p.c. of the cost of such equipment are available.

The streams of the Province, mostly spring-fed and fairly constant in flow, provide very favourable conditions for the reproduction of game fish, of which speckled trout is the most important. Investigations toward the problem of increasing the production of trout of a size attractive to anglers are being conducted by the Fisheries Research Board of Canada at sites provided by the Provincial Department. The necessary dams and the fish required for experimental purposes are provided by the Federal Government. Unfortunately many of the fertile and highly productive ponds of the Province have disappeared but the Provincial Department is actively concerned with damming and restoring them for the enjoyment of the public.

Nova Scotia.—The basic responsibility for the administration of tidal and inland fisheries in Nova Scotia is undertaken by the Federal Government. The Province, however, supplements the activities of this authority through its Department of Trade and Industry. In practice, a system of co-operative effort has been worked out between the two authorities with each free to carry out individual responsibilities and specific programs. Provincial activities fall into three sections: development, administration and research.

Development.—Development activities include engineering services, financial assistance to the fisheries industry generally, and educational services to the fishermen.

Engineering services are related to the design, construction and equipment of boats, vessels and fish processing plants. A marine engineer is employed for these services and for the extension of consultant services to all persons interested in the industry. Financial assistance is extended by way of loans for the construction and modernization of fish processing plants and to fishermen for the acquisition of boats and engines. Where the requirements of large new plants have exceeded the capacity of local authorities the Province has provided such utilities as water lines and rail sidings.

Educational services comprise instruction of fishermen in the care and maintenance of marine engines, in basic navigation and in the mending, design and construction of nets and other fishing gear. Short courses are conducted in the fishing ports by Department-employed instructors during the less active fishing seasons. This program is assisted by grants under the Canadian Vocational Training program of the federal Department of Labour.

Administration.—The Nova Scotia Fisheries Act serves to supplement federal jurisdiction and is administered jointly by the Department of Trade and Industry and the federal Department of Fisheries. The Act requires fish processing plants and fish buyers to obtain annual licences. These are issued by the Department of Trade and Industry

only on the recommendation of inspectors of the federal Department of Fisheries and the certification of the Department of National Health and Welfare as to compliance with standards of construction, operation and sanitation contained in federal regulations.

Information obtained from the licensing activities and other statistics supplied by the federal Department of Fisheries enables the provincial Department of Trade and Industry to handle inquiries about the fisheries industry.

Research.—Provincial fisheries research activities have been confined largely to the inland trout and salmon fisheries. The Department of Trade and Industry has carried out a five-year program of water control on the LaHave River in the interests of salmon preservation and development; has undertaken experiments in fertilization of lakes and in partial poisoning of lakes to reduce the numbers of coarse fish competing with trout for the available food supply; and has conducted some special studies of trout populations and salmon migrations. Research activities of this nature have been continued under the direction of the Nova Scotia Research Foundation.

New Brunswick.—Tidal or sea fisheries in New Brunswick are under the jurisdiction of the Federal Government while inland fisheries are administered jointly by the Federal and Provincial Governments. However, in co-operation with the federal Department of Fisheries, the Provincial Government, through its Department of Industry and Development, assumes certain responsibilities in the development of the commercial fisheries.

Financial assistance, by way of loans, is provided to fishermen for the purchase of boats and engines, and for the construction and expansion of cold storage facilities. Small loans are made available to inshore fishermen for the purchase of lobster and herring boats and larger amounts are granted to offshore fishermen for the building of modern groundfish draggers. Seventy units of from 48 to 72 feet in length are in operation in the Gulf of St. Lawrence and the Bay of Fundy. The Bay of Fundy fleet is being enlarged, with consideration being given to the fact that existing processing facilities are limited. However, an expenditure of \$500,000 is being made on cold storage and processing plants under construction at Beaver Harbour. The processing plant alone will absorb an estimated 5,000,000 lb. of fish annually, a capacity that will increase over the years.

The Provincial Government is experimenting with new fishing equipment and techniques that may assist the inshore fisheries. These experiments are carried out with the technical assistance of the Fisheries Research Board of Canada and with the close co-operation of the fishermen concerned. Educational services are extended to deepsea fishermen by offering them practical instruction in basic navigation, rules of the road, business administration and care of marine diesel engines. Technical assistance is also given by Fisheries Branch personnel to dragger owners, boatbuilders and inshore fishermen.

Quebec.—The Department of Game and Fisheries administers both the sea and the inland fisheries of Quebec. The Department has two divisions—the Division of Maritime Fisheries and the Division of Fish and Game, the latter being charged with the administration of the inland fisheries.

Sea Fisheries.—Quebec is the only province administering its own sea fisheries. For the benefit of producers and fishermen, it provides a system of cold storage plants for the freezing and preservation of fish. Since the erection of the first plant in 1932, the network has grown to 53 plants with a daily freezing capacity of 260 tons of fish and a storage capacity of 17,000,000 lb. These cold storage plants also perform a valuable service to fishermen by providing them with frozen bait. In addition, the Department owns and maintains 115 snow houses (where fish may be chilled before being sent to storage or filleting plants), 40 culling sheds, and two artificial drying plants where 6,000,000 lb. of fish may be processed annually.

The Department maintains a staff of inspectors, fish wardens, technicians and technologists to administer fishery legislation and to assist in the application of new techniques for the expansion of the industry. The central administration is located at Quebec City

with an office at Gaspé for the administration of cold storage plants. Fish inspection is carried out under federal and provincial legislation by provincial inspectors who are vested with additional powers for export purposes by the Federal Government.

Educational work among the fishermen and producers is also conducted by the Department to teach the latest methods of fish preparation and of obtaining high quality products. The new Fisheries Training School at Grande Rivière gives to fishermen of all ages the opportunity of taking free theoretical and practical courses in fishery, and the Superior School of Fisheries at Ste. Anne-de-la-Pocatière conducts a four-year course for technologists. Encouragement is given to the co-operative associations of fishermen through the Social Economic Service of the latter institution. Under a maritime credit system fishermen are able to obtain loans from credit unions for the purchase of boats and gear. The Department adheres to the federal-provincial agreement on the building of draggers and long-liners and assumes the building costs on a five-year capital refunding plan.

The fish trade is being promoted by advertising campaigns in newspapers and magazines, cooking demonstrations, educational films and free distribution of fish recipes and publicity leaflets as well as by exhibits at fairs.

Hydrographical research in the Gulf of St. Lawrence, studies on the location of new fishing grounds, and experiments on seafish biology are conducted by a Marine Biological Station at Grande Rivière and two substations on the North Shore and Magdalen Islands. This research has brought into use new types of fishing vessels recommended to fishermen. The Department also operates a Limnological Laboratory at Quebec City for studying the biology of the freshwater fish of the St. Lawrence River and its tributaries.

Inland Fisheries.—The Division of Fish and Game exercises jurisdiction over the inland waters. Three hundred full-time wardens are employed and licences are required for sport fishing and hunting, the revenue from which is applied to the improvement of fishing and hunting conditions. Five hatcheries are maintained at strategic points throughout the Province: St. Faustin, Lachine, Lac Lyster, Tadoussac and Gaspé. These establishments distribute speckled trout, Atlantic salmon and grey trout fry, maskinonge fingerlings and older fish.

The Department administers five parks and eight reserves in all of which, except for Mount Orford Park, excellent fishing may be found. The Gaspesian and Laurentides Parks are renowned for their trout fishing. The Chibougamau Reserve and the La Vérendrye Park, situated on the height of land, are eminently suited to canoe trips in search of pickerel, pike and grey or speckled trout. Five salmon streams, all under the jurisdiction of the Fish and Game Division, are open to anglers: the Romaine River, the St. Jean River, the Petite Cascapédia River, the Matane River and Port-Daniel River. The Department co-operates with sportsmen through a joint committee composed of departmental officials and the directors of the larger fish and game associations. The committee studies the maintenance of satisfactory fishing and hunting conditions and other problems arising out of the ever-changing conditions of modern life and their effect on the wildlife of the Province.

The Biological Bureau of the Province, located at the University of Montreal, and the piscicultural laboratory at Quebec City, with its two stations for practical work located in the Tremblant Mountain and Laurentides Parks, study problems connected with marine life.

Ontario.—The fishery resources of Ontario are administered by the Division of Fish and Wildlife, Department of Lands and Forests. The Division operates under the authority of the Fisheries Act (Canada), the Special Fishery Regulations for the Province of Ontario, the Ontario Game and Fisheries Act and the Regulations connected therewith.

Commercial Fishing.—The commercial fishing industry in Ontario provides employment for about 4,000 persons directly and for many more indirectly, and produces an annual yield of from 35,000,000 lb. to 45,000,000 lb. of fish. The industry, although widely

scattered throughout the Province, is centred chiefly on the Great Lakes, particularly Lake Erie which is noted for its blue and yellow pickerel, white bass, whitefish and perch. Other principal species of fish taken commercially are: lake trout, herring or cisco, sturgeon, pike, catfish (including bullheads), carp and suckers. Over one hundred smaller inland lakes are commercially fished, principally those in the northwestern portion of the Province, and careful management of these lakes is essential to ensure continued production.

The types of fishing boats in use vary from small craft to 60-foot tugs, and types of gear vary from the most common gill-nets, pound-nets and trap-nets, seines and baited hooks to small hand-operated seines and dip-nets. Fishing methods and equipment have been rapidly modernized during the past few years. Diesel driven steel-hull tugs have replaced steam-driven wooden tugs. Such aids as depth sounding devices, radar, ship-to-shore and ship-to-ship communications have been developed and a better knowledge of the fish and their movements has been established from biological research findings. Modern icing facilities and transportation methods are in use as well as new types of fishing gear. Nylon gill-nets have replaced cotton and linen nets and a very efficient and economical trap-net is gradually replacing the pound-net in Lake Erie and other waters.

Excellent co-operation and understanding of the complex problems involved in the administration and management of Ontario's freshwater fishing industry by the Government and the fishermen, through their local associations and the Ontario Council of Commercial Fisheries, is working to the advantage of the industry as a whole.

Angling.—In Ontario with its estimated freshwater area of 78,747 sq. miles, angling constitutes one of the most widely distributed recreations. There are 144 different kinds of fish in the Province including such species as lake, speckled, rainbow and brown trout, yellow pickerel, black bass, pike and maskinonge. It is difficult to measure the value of sport fishing to the Province but the annual revenue from the sale of angling licences alone (mainly to non-residents, as residents require a licence for Provincial Parks only) is in the neighbourhood of \$2,300,000.

To maintain Ontario's reputation for excellent game fishing the wise management of this renewable resource is a prime factor, and a well-trained field staff of conservation officers and biologists is located in the 22 forestry districts of the Province.

Provincial Hatcheries.—Ontario operates 21 hatcheries and rearing stations and excellent results have been produced in the culture and distribution of the various species of commercial and game fish. Hundreds of millions of fry, fingerlings and yearlings, comprising whitefish, herring, pickerel, trout (lake, speckled, brown and Kamloops), maskinonge, bass and ouananiche are distributed annually. Three of the finest trout-rearing stations on this Continent are located in Ontario at Dorion near Port Arthur, at Sault Ste. Marie and at Hill Lake near Englehart.

Fisheries Research.—Research in Ontario is carried on in the Great Lakes where commercial fisheries problems are being investigated, and in inland waters where game fish populations are being studied. At the South Bay Mouth Station, Manitoulin Island, research biologists are conducting studies relating to the removal and utilization of the less valuable species and the effects of this removal on stocks of the more valuable commercial and game species. In Algonquin Park a careful record of angling quality is kept for a number of test lakes to allow evaluation of management techniques. Certain of the more barren lakes are being treated with fertilizer to determine the effect on microscopic organisms and fish.

The habits of lake trout and eastern brook or speckled trout are being studied to provide additional information on the proper management of these species. Many authorities believe the increase in the sea lamprey and the drastic drop in production of lake trout in recent years in Lake Huron (including Georgian Bay and North Channel) to be directly related and this has led to an International Agreement between Canada and the United States and the establishment of the Great Lakes Fisheries Research Commission

for the co-ordination and direction of the fisheries research program, particularly as it is applied to the control of the sea lamprey menace. Co-operation is maintained by the exchange of biological findings and, where practicable and feasible, the results are applied in an attempt to control this menace.

Established fish management principles are applied by biologists in the various forestry districts. The program includes such projects as biological surveys and investigations, bass harvesting, coarse fish removal, creel census studies, fish tagging and other related subjects.

Manitoba.—For the year ended Mar. 31, 1956, the freshwater commercial fisheries of Manitoba, made possible by nearly 39,255 sq. miles of lakes and streams in the Province, yielded a catch of 34,936,600 lb. of choice edible fish, the market value of which was \$6,146,761. Fifteen varieties of fish make up the commercial catch, the most important, according to value, being pickerel, whitefish, sauger, pike and perch. In addition to commercial production, sport fishing yielded a considerable poundage.

The fisheries of Manitoba provide a large harvest of rich protein food about 90 p.c. of which is sold to United States dealers. Actual fishing operations employ over 6,000 men and at least a similar number find total or partial employment in the many industries dependent wholly or in part on the fisheries.

Since the commercial fishing industry began in Manitoba about 75 years ago, equipment has improved and methods of handling fish have changed to meet modern demands for a packaged product ready to serve or convenient to cook. Oars and sail have given way to high powered internal combustion engines and boats that can lift nets in almost any weather. Coarse linen gill-nets have also disappeared in favour of the finest of nylon gill-netting. In marketing, whole fish packed in ice is being replaced, in part at least, with a packaged filleted product, or precooked items. Throughout the fishing industry there is a keen appreciation of the necessity of producing a first quality product, convenient to prepare, attractively packaged, and appealing to the eye, palate and the cook. The city of Winnipeg has become one of the largest freshwater fish marketing centres on the Continent and the provincial Department of Mines and Natural Resources maintains a city patrol service to ensure, as far as is possible, that only fish of first quality is marketed or offered to the consumer. This patrol operates in co-operation with officials of the federal Department of Fisheries. To regulate the fishery operation and to ensure that seasons and limits are observed, the Fisheries Branch of the Provincial Department operates a fleet of patrol boats in summer and a number of bombardier snowmobiles in winter.

Four fish hatcheries are engaged in the artificial propagation of pickerel and whitefish on commercial fishing lakes and a trout hatchery provides a supply of lake, rainbow and speckled trout for sport fishing waters at the northern extremity of West Hawk Lake in Whiteshell Provincial Park.

Saskatchewan.—The fisheries of Saskatchewan are administered by the Fisheries Branch of the provincial Department of Natural Resources with head office at Prince Albert. Most of the fisheries resources are concentrated in the northern half of the Province where the lakes have always been a source of food to the fur traders, trappers, prospectors and the Cree and Chipewyan Indians who inhabit the area; they also provide food and supplementary income to settlers and homesteaders on the agricultural fringe.

There are approximately 135 commercially fished lakes in the Province and the principal species of fish include lake trout, whitefish, pickerel, northern pike, sturgeon, cisco, Arctic grayling, goldeye, mullet, perch and burbot. The growth of the filleting industry has been of particular significance, 12 filleting and 11 packing plants having been established since 1945. The importance of the fishery resources to mink ranchers in the Province is shown by the fact that in the year ended Mar. 31, 1956, 78 fur-farm fishing licences were issued and 43,167 mink were fed under these licences; 722 domestic licences and 1,769 free licences to Indians were also issued.

There has been marked development recently in sport fishing. In the fiscal year 1955-56 there were 78,988 resident and 6,658 non-resident angling licences sold, compared with 6,000 resident and 1,500 non-resident licences sold in 1945.

Emphasis in the fish cultural activities of the Province during the past few years has been on extending the range of the Arctic grayling species from the Far North into the Churchill River area, and on the introduction of eastern brook trout and certain warm water species into areas where preliminary study seems to indicate suitable environment. To a large extent the indiscriminate planting of fish has been discontinued. A new fish culture station is being built at Fort Qu'Appelle for the hatching of pickerel, rainbow, brown and lake trout. Rearing facilities will also be built for the rearing of various types of game trout. An experimental hatchery has been established at Lac la Ronge where Arctic grayling and lake trout eggs have been hatched, an Arctic grayling spawn camp in the Fond-du-lac River near Black Lake, and a pickerel spawn camp on the Montreal River near Lac la Ronge.

The management of the provincial water areas is conducted on a scientific basis. In 1947 a large-scale biological program was undertaken and since then more than 100 water areas have been studied as to their productivity as well as to the interrelationship of the species and their life histories. In so far as known facts permit, the management of the various lakes has been placed on a sustained-yield basis. Experiments are in progress on the introduction of non-native species into suitable water areas. Where sport fishing pressure has increased, such as on Lac la Ronge, Last Mountain Lake and Qu'Appelle Lakes, a creel census has been established and the annual take is recorded. The Fisheries Laboratory, established in 1949 at the University of Saskatchewan, has five permanent biologists on its staff, and usually about 12 students of the University are employed each summer on biological surveys. The Fisheries Branch has conducted a program of education designed to acquaint people of the Province with the importance of scientific research and the necessity of certain regulations governing the administration of fisheries.

Alberta.—Commercial and game fishing are administered by the Fish and Game Branch of the Department of Lands and Forests under the authority of the Fisheries Act (Canada) and the Fishery Act (Alberta).

Regulations under the Fishery Act (Alberta), designed to improve the packing, handling, processing, storage and quality of commercial fish, have been well received and supported by the Alberta industry. In line with a policy for producing good quality fish, lakes in which whitefish are infected with pike-tapeworm and do not meet the quality standard have been closed to commercial fishing.

About 80 p.c. of the whitefish production is exported to the United States. Mink farmers of the Province utilize almost the entire catch of tullibee.

Biological surveys of many lakes and watersheds have provided an opportunity to observe the result of former management policies. These surveys have shown that traditional practices of trout-stream management were inadequate or incorrect. As a consequence, the minimum size limit has been removed on all trout except lake trout and close seasons for trout, pike, walleye and perch have been abolished. A new management plan on the east slope streams of the Rocky Mountains has been extended to include all the forested area. The main streams are continuously open; the smaller streams are opened and closed in alternate years. The trout-rearing facilities are used largely to produce fish for planting in small lakes and reservoirs previously barren of fish. It has been found that such waters produce very fast-growing trout with a satisfactory survival.

British Columbia.—A Fisheries Office was organized in 1901-2 and became very active in fish cultural work, building and operating fish hatcheries and instituting scientific research into various fishery problems. In 1947 the Fisheries Office was superseded by the Department of Fisheries which in turn was superseded in 1957 by the Department of Recreation and Conservation.

Broadly speaking the administrative and regulative jurisdiction over the fisheries of British Columbia rests with the federal authority. When British Columbia entered Confederation in 1871 the Government of Canada undertook to protect, conserve and promote the fisheries of the Province, and one of the important functions of the provincial Department of Fisheries is to observe these activities and to keep the Provincial Government informed through the appropriate Minister.

The ownership of the fisheries in the non-tidal waters is vested in the Crown in the right of the Province, as are the shell fisheries such as oyster fishing and clam fishing in the tidal waters. The Province administers these fisheries although the regulations covering them are made under federal Order in Council on the advice and recommendation of the Province.

The Provincial Fisheries Act provides for the taxation of the fisheries and, under civil and property rights, for the regulation and control of the various fish processing plants under a system of licensing. Provision is also made for arbitration of disputes regarding fish prices that may arise between the fishermen and operators of the various licensed plants. The administration of the Act involves the collection of revenue and the supervision of plant operations.

Net fishing in the non-tidal waters of the Province, including commercial fishing, is regulated and administered by the provincial Department of Fisheries, and authority for regulation of the game fisheries in the non-tidal waters is vested in the Game Commission, a branch of the Provincial Government administration. The Game Commission operates a number of trout hatcheries and egg-taking stations for restocking purposes.

The harvesting of marine plants of commercial importance in British Columbia, including the kelps, has recently been placed under the provincial Department of Fisheries for regulation and control. Some research has been done on a few of the important species and more will be undertaken as required.

The provincial Department of Fisheries established a marine laboratory at Ladysmith on Vancouver Island for the purpose of conducting biological research into those species over which the Province has control, principally oysters, clams and other forms of shellfish as well as marine plants. This research is conducted with the object of encouraging the industry to produce better products more economically and of enabling the Department to regulate the various species so that maximum exploitation may be obtained on a sustained yield basis. The Department co-operates closely with the research work done by the Fisheries Research Board of Canada, particularly on the Pacific Coast.

Section 3.—Fishery Statistics

Subsection 1.—Primary Production

Since Newfoundland became a province of Canada in 1949, the landings of fish in Canada have fluctuated around 2,000,000,000 lb.; a maximum catch of 2,122,000,000 lb. was recorded in 1950. The landed value is generally over \$90,000,000, having reached \$102,000,000 in 1951. Since 1949, the Province of Newfoundland has contributed a yearly average of 588,000,000 lb. and of \$13,500,000. The total Canadian catch of fish in 1955 was 1,917,000,000 lb. valued at \$90,900,000, a decline of 6.5 p.c. in quantity and of 7.6 p.c. in value compared with the preceding year. The decline was most significant in British Columbia, Newfoundland and New Brunswick, freshwater fisheries having recorded a slightly higher level both for quantity and value.

British Columbia's 1955 catch of 498,376,000 lb. valued at \$27,710,600 was considerably lower than that of 1954. The landings of sockeye and chum salmon, at 16,642,000 lb. and 18,178,000 lb., respectively, were disappointing and the low yield of these species was only partially compensated for by the highest yield of pinks since 1930 (831,253 cases of 48 lb.). The total salmon catch was 131,008,000 lb. valued at \$18,481,000 compared with 178,862,000 lb. valued at \$23,578,800 in 1954.

The halibut and herring catches in British Columbia were also low in 1955. Halibut declined to 19,679,000 lb. valued at \$2,555,000 from 25,199,000 lb. and \$3,984,000 in the preceding year and a depressed market for this product was reflected in lower unit returns to fishermen. The landings of herring were 305,692,000 lb. valued at \$4,187,000 in 1955, against 360,962,000 lb. and \$4,565,000 in 1954. The decrease was the result of two principal factors: the 1954-55 winter herring season ended early in February, a month earlier than usual, when schools of herring failed to appear; operators and fishermen failed to reach an agreement on prices for the summer operations and there was no fishing for herring in the summer months. A similar lack of agreement on prices for the 1955-56 winter season delayed the resumption of fishing from the normal early October opening to Nov. 17.

On the Atlantic Coast the yield of the fisheries was satisfactory in 1955. The catch declined by 2.3 p.c. to 1,299,954,000 lb. from 1,330,638,000 lb. in 1954, but the landed value at \$50,057,000 was virtually unchanged from the previous year's level. A small catch of herring in New Brunswick and of cod in Newfoundland accounted for the decline in landings, though increased landings of other species partially offset the loss. Except for a decline in the cod fisheries, the groundfish fisheries were very successful mainly those of haddock, pollock and the small flatfishes—plaice and flounders. There were additions to the dragger fleet in the Gulf of St. Lawrence and offshore fishing out of the Nova Scotia ports was active throughout the year supported by a growing production of frozen fillets. Lobster fishing was also very successful, the 1955 catch being 48,568,000 lb. with a landed value of \$16,470,000 as compared with 46,675,000 lb. valued at \$15,558,000 in the preceding year. Provincial distribution figures indicate a decline in Newfoundland and New Brunswick as compared with 1954 but a rise in Nova Scotia, Quebec and Prince Edward Island.

The harvest of freshwater species in Canada amounted to 118,959,000 lb. in 1955 valued at \$13,125,000, both figures being a record for a great number of years. The Great Lakes fisheries of blue and yellow pickerel were particularly successful, the landings of these two species together being valued at \$4,541,000. However, the most valuable of the freshwater species are whitefish and lake trout. Whitefish is taken commercially in all the inland provinces and the Northwest Territories. Most of the lake trout is from the Great Slave Lake, the Great Lakes or the Saskatchewan waters. However, the whitefish and lake trout catch continued to decline in the Great Lakes in 1955 but they were landed in larger amounts from the Great Slave Lake.

In 1955, 62,511 persons were employed in the primary operations of the sea and freshwater fisheries (Newfoundland excluded), approximately the same as in 1954. No significant change has been recorded in the number of fishermen in the past few years except in Newfoundland. Long-term records for this Province are confined to a count of the cod fishermen, who have gradually come down in number, especially since 1950. The latest figure available of number of fishermen in Newfoundland is for 1954 when 16,469 were reported.

The value of equipment used in the primary operations was \$107,071,000 in 1955 (Newfoundland excluded). This figure refers to investment in vessels of all kinds, boats, fishing gear, shore installations, etc. In recent years, a substantial investment was made in modern long-liners and draggers, especially for the groundfish fisheries. The capital equipment employed in primary operations in Newfoundland was reported at \$17,535,300 for 1954.

1.—Quantity and Value of Sea and Inland Fish Landed by Province 1951-55

NOTE.—Figures for the years 1918-50 are given in previous editions of the Year Book beginning with the 1947 edition.

| Province or Territory | 1951 | 1952 | 1953 | 1954 | 1955 |
|----------------------------|------------------|------------------|------------------|------------------|------------------|
| QUANTITY | | | | | |
| | '000 lb. | '000 lb. | '000 lb. | '000 lb. | '000 lb. |
| Newfoundland..... | 612,460 | 551,960 | 502,085 | 607,413 | 553,170 |
| Prince Edward Island..... | 27,224 | 32,471 | 31,944 | 34,627 | 35,931 |
| Nova Scotia..... | 381,904 | 392,396 | 371,049 | 396,511 | 425,902 |
| New Brunswick..... | 227,038 | 254,599 | 197,235 | 213,294 | 167,438 |
| Quebec..... | 102,119 | 127,563 | 113,163 | 92,545 | 129,192 |
| Ontario..... | 30,969 | 38,044 | 44,838 | 47,680 | 45,634 |
| Manitoba..... | 35,457 | 31,338 | 23,358 | 28,445 | 34,936 |
| Saskatchewan..... | 11,512 | 10,612 | 8,481 | 10,524 | 10,152 |
| Alberta..... | 8,399 | 9,657 | 10,839 | 8,765 | 8,731 |
| British Columbia..... | 621,881 | 406,452 | 543,676 | 602,270 | 498,376 |
| Northwest Territories..... | 7,477 | 7,042 | 6,719 | 7,021 | 7,827 |
| Totals..... | 2,066,440 | 1,862,134 | 1,853,387 | 2,049,095 | 1,917,289 |
| Sea Fish..... | 1,968,081 | 1,759,205 | 1,747,171 | 1,932,908 | 1,798,330 |
| Inland Fish..... | 98,359 | 102,929 | 106,216 | 116,187 | 118,959 |
| VALUE | | | | | |
| | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Newfoundland..... | 13,500 | 12,928 | 12,015 | 14,704 | 13,662 |
| Prince Edward Island..... | 2,240 | 2,660 | 2,870 | 2,948 | 3,279 |
| Nova Scotia..... | 21,398 | 22,679 | 21,928 | 23,046 | 23,582 |
| New Brunswick..... | 7,588 | 7,825 | 6,910 | 7,310 | 6,753 |
| Quebec..... | 3,376 | 3,572 | 3,395 | 2,931 | 3,453 |
| Ontario..... | 7,035 | 7,417 | 7,027 | 7,013 | 6,783 |
| Manitoba..... | 4,263 | 3,439 | 2,717 | 3,088 | 3,477 |
| Saskatchewan..... | 910 | 679 | 553 | 741 | 763 |
| Alberta..... | 544 | 654 | 667 | 667 | 688 |
| British Columbia..... | 40,638 | 30,158 | 31,280 | 34,458 | 27,711 |
| Northwest Territories..... | 535 | 735 | 470 | 636 | 742 |
| Totals..... | 102,027 | 92,746 | 89,832 | 97,542 | 90,893 |
| Sea Fish..... | 88,173 | 79,280 | 77,718 | 84,819 | 77,768 |
| Inland Fish..... | 13,854 | 13,466 | 12,114 | 12,723 | 13,125 |

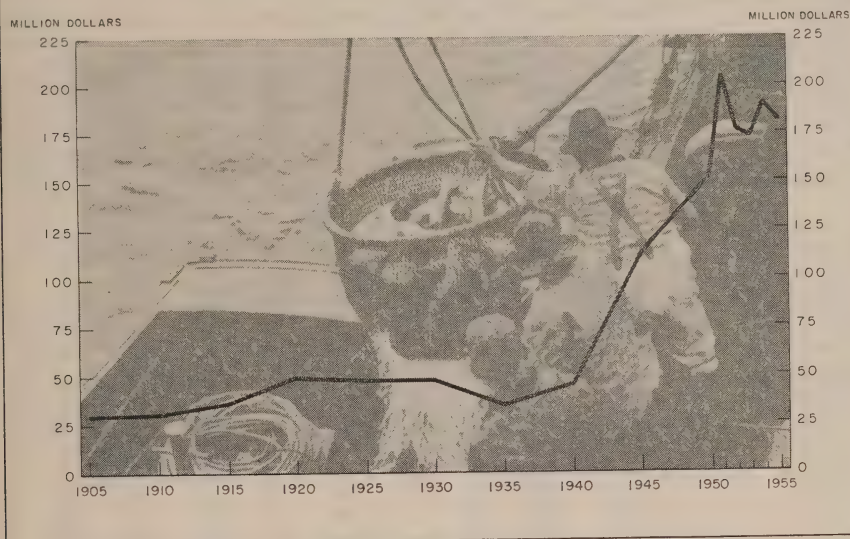
2.—Value of All Products of the Fisheries by Province 1951-55

NOTE.—Figures for the years 1917-50 are given in the corresponding table of previous Year Books beginning with the 1922-23 edition. Totals for five-year intervals from 1870 are given in the 1956 edition, p. 597.

| Province or Territory | 1951 | | 1952 | | 1953 | | 1954 | | 1955 | |
|----------------------------|----------------|------------|----------------|------------|----------------|------------|----------------|------------|----------------|------------|
| | \$'000 | p.c. | \$'000 | p.c. | \$'000 | p.c. | \$'000 | p.c. | \$'000 | p.c. |
| Newfoundland (estimated) | 29,000 | 14 | 27,500 | 16 | 24,000 | 14 | 28,000 | 15 | 25,000 | 14 |
| Prince Edward Island..... | 3,213 | 1 | 3,759 | 2 | 4,049 | 2 | 3,922 | 2 | 3,841 | 2 |
| Nova Scotia..... | 40,314 | 20 | 42,435 | 24 | 40,048 | 23 | 44,079 | 23 | 47,093 | 26 |
| New Brunswick..... | 21,155 | 10 | 20,504 | 12 | 17,749 | 10 | 22,161 | 12 | 20,420 | 11 |
| Quebec..... | 5,511 | 3 | 6,113 | 3 | 5,804 | 3 | 5,002 | 3 | 6,675 | 4 |
| Ontario..... | 7,925 | 4 | 8,344 | 5 | 7,916 | 5 | 7,889 | 4 | 7,631 | 4 |
| Manitoba..... | 7,524 | 4 | 5,960 | 3 | 4,784 | 3 | 5,279 | 3 | 6,044 | 3 |
| Saskatchewan..... | 1,749 | 1 | 1,440 | 1 | 1,281 | 1 | 1,644 | 1 | 1,617 | 1 |
| Alberta..... | 862 | -- | 943 | 1 | 1,086 | 1 | 1,141 | -- | 1,144 | 1 |
| British Columbia..... | 85,397 | 42 | 57,234 | 32 | 65,103 | 37 | 69,351 | 36 | 60,032 | 33 |
| Yukon..... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Northwest Territories..... | 2,262 | 1 | 2,225 | 1 | 1,512 | 1 | 2,040 | 1 | 1,529 | 1 |
| Totals..... | 204,912 | 100 | 176,457 | 100 | 173,332 | 100 | 190,508 | 100 | 181,026 | 100 |
| Sea Fish..... | 184,023 | 90 | 157,003 | 89 | 156,072 | 90 | 171,935 | 90 | 162,389 | 90 |
| Inland Fish..... | 20,889 | 10 | 19,454 | 11 | 17,260 | 10 | 18,573 | 10 | 18,637 | 10 |

VALUES OF ALL PRODUCTS OF THE FISHERIES, 1905-55

(INCLUDES AN ESTIMATE FOR NEWFOUNDLAND STARTING 1951)



3.—Quantity Landed and Value of Products by Selected Species 1951-55

(Excluding Newfoundland)

| Areas and Species | Quantity Landed ¹ | | | | | Value of Products ² | | | | |
|------------------------------|------------------------------|----------------|----------------|----------------|----------------|--------------------------------|---------------|---------------|---------------|---------------|
| | 1951 | 1952 | 1953 | 1954 | 1955 | 1951 | 1952 | 1953 | 1954 | 1955 |
| | '000 lb. | '000 lb. | '000 lb. | '000 lb. | '000 lb. | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Atlantic Coast | | | | | | | | | | |
| Groundfish | 374,009 | 412,563 | 379,313 | 407,463 | 447,447 | 30,201 | 31,849 | 28,316 | 33,203 | 35,455 |
| Catfish..... | 3,605 | 4,992 | 4,981 | 4,814 | 4,429 | 217 | 372 | 381 | 344 | 334 |
| Cod..... | 227,172 | 238,641 | 189,298 | 197,906 | 202,912 | 17,009 | 17,584 | 13,900 | 17,999 | 17,951 |
| Flounders..... | 4,478 | 4,005 | 3,299 | 3,206 | 2,798 | 381 | 235 | 188 | 190 | 230 |
| Haddock..... | 55,990 | 54,902 | 58,480 | 75,172 | 83,976 | 5,144 | 5,204 | 5,391 | 6,588 | 7,141 |
| Hake..... | 22,312 | 28,380 | 23,647 | 20,166 | 18,438 | 1,181 | 1,584 | 1,186 | 894 | 740 |
| Halibut..... | 7,755 | 4,009 | 4,155 | 4,650 | 4,007 | 2,370 | 1,484 | 1,417 | 1,348 | 1,214 |
| Plaice..... | 25,301 | 34,318 | 35,433 | 30,677 | 51,799 | 1,944 | 2,567 | 2,523 | 2,030 | 3,910 |
| Pollock..... | 17,831 | 28,398 | 30,403 | 32,154 | 38,816 | 1,250 | 1,771 | 1,589 | 1,862 | 2,141 |
| Rosefish..... | 4,054 | 7,999 | 17,629 | 28,985 | 26,477 | 310 | 502 | 973 | 1,414 | 1,240 |
| Witch..... | 1,221 | 2,459 | 6,354 | 4,400 | 8,246 | 105 | 234 | 523 | 311 | 336 |
| Other..... | 4,390 | 4,460 | 5,634 | 5,333 | 5,549 | 290 | 312 | 245 | 223 | 218 |
| Pelagic and Estuarial | | | | | | | | | | |
| Alewives | 27,678 | 38,146 | 26,003 | 21,237 | 18,110 | 970 | 1,267 | 933 | 879 | 694 |
| Herring..... | 143,451 | 184,591 | 150,123 | 152,708 | 161,214 | 5,450 | 5,800 | 4,355 | 4,326 | 4,842 |
| Mackerel..... | 24,742 | 21,992 | 18,461 | 25,512 | 24,862 | 2,112 | 1,889 | 1,490 | 1,899 | 2,030 |
| Salmon..... | 1,764 | 1,696 | 1,594 | 1,601 | 892 | 951 | 1,073 | 959 | 1,038 | 845 |
| Sardines..... | 64,805 | 54,542 | 37,212 | 33,165 | 11,036 | 5,654 | 4,584 | 3,244 | 5,501 | 2,982 |
| Smelts..... | 6,337 | 4,031 | 6,305 | 4,622 | 6,084 | 1,313 | 980 | 1,215 | 815 | 1,019 |
| Swordfish..... | 2,544 | 3,156 | 3,324 | 4,298 | 4,546 | 1,114 | 1,076 | 1,183 | 1,245 | 1,431 |
| Other..... | 6,131 | 5,243 | 5,964 | 4,683 | 5,494 | 403 | 406 | 309 | 278 | 332 |

For footnotes, see end of table, p. 610.

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3.—Quantity Landed and Value of Products by Selected Species 1951-55—concluded

| Areas and Species | Quantity Landed ¹ | | | | | Value of Products ² | | | | |
|---------------------------------------|------------------------------|----------------|----------------|----------------|----------------|--------------------------------|----------------|----------------|----------------|----------------|
| | 1951 | 1952 | 1953 | 1954 | 1955 | 1951 | 1952 | 1953 | 1954 | 1955 |
| | '000 lb. | '000 lb. | '000 lb. | '000 lb. | '000 lb. | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Molluscs and Crustaceans | 71,376 | 71,138 | 67,758 | 60,511 | 60,429 | 19,603 | 21,616 | 22,466 | 22,375 | 24,375 |
| Clams— | | | | | | | | | | |
| Quahogs..... | 1,147 | 2,672 | 4,670 | 3,456 | 791 | 51 | 140 | 281 | 203 | 59 |
| Soft-shelled..... | 15,977 | 12,336 | 9,651 | 7,326 | 6,897 | 1,046 | 1,208 | 831 | 861 | 753 |
| Lobsters..... | 45,573 | 44,133 | 41,920 | 41,433 | 43,060 | 17,569 | 18,634 | 19,719 | 19,956 | 21,916 |
| Oysters..... | 6,885 | 7,892 | 8,159 | 5,001 | 6,244 | 514 | 581 | 630 | 449 | 545 |
| Scallops..... | 599 | 1,114 | 1,601 | 1,541 | 1,635 | 331 | 727 | 795 | 729 | 966 |
| Other..... | 1,195 | 2,991 | 1,757 | 1,754 | 1,802 | 92 | 326 | 210 | 177 | 131 |
| Other | ... | ... | ... | ... | ... | 1,855 | 1,728 | 2,499 | 3,025 | 3,351 |
| Totals, Atlantic Coast | ... | ... | ... | ... | ... | 69,626 | 72,268 | 66,969 | 74,584 | 77,356 |
| Pacific Coast | | | | | | | | | | |
| Groundfish | 43,777 | 49,471 | 39,199 | 41,513 | 35,766 | 8,894 | 8,726 | 7,658 | 8,102 | 6,123 |
| Cod..... | 5,267 | 4,510 | 3,191 | 4,973 | 3,464 | 454 | 521 | 252 | 467 | 445 |
| Halibut..... | 20,214 | 23,488 | 24,882 | 25,199 | 19,679 | 5,762 | 5,672 | 5,721 | 5,965 | 3,924 |
| Lingcod..... | 4,746 | 4,242 | 2,943 | 3,907 | 3,625 | 826 | 590 | 383 | 487 | 399 |
| Sablefish..... | 1,897 | 1,346 | 1,364 | 1,128 | 1,215 | 501 | 310 | 313 | 257 | 265 |
| Soles..... | 10,129 | 14,412 | 6,138 | 5,428 | 6,993 | 1,188 | 1,533 | 854 | 461 | 710 |
| Other..... | 1,524 | 1,473 | 681 | 878 | 790 | 163 | 100 | 135 | 465 | 380 |
| Pelagic and Estuarial ... | 564,861 | 339,535 | 489,035 | 543,288 | 444,522 | 73,507 | 46,629 | 55,553 | 59,099 | 51,378 |
| Herring..... | 365,432 | 189,497 | 298,241 | 360,962 | 305,692 | 10,640 | 4,235 | 6,519 | 7,340 | 7,636 |
| Salmon..... | 197,594 | 146,965 | 186,914 | 178,862 | 131,008 | 60,750 | 40,495 | 47,936 | 50,284 | 42,625 |
| Chum..... | 63,491 | 31,862 | 54,425 | 74,399 | 18,178 | 12,185 | 4,786 | 8,436 | 11,965 | 3,749 |
| Coho..... | 32,211 | 19,608 | 21,105 | 18,928 | 21,534 | 12,609 | 5,180 | 5,844 | 6,335 | 8,632 |
| Pink..... | 60,012 | 51,249 | 61,512 | 25,734 | 63,106 | 14,920 | 11,088 | 12,540 | 6,058 | 15,953 |
| Sockeye..... | 29,815 | 30,867 | 35,337 | 47,001 | 16,642 | 16,085 | 14,781 | 16,111 | 21,200 | 9,343 |
| Spring..... | 11,657 | 12,870 | 14,072 | 12,238 | 11,306 | 4,184 | 4,174 | 4,216 | 3,781 | 4,250 |
| Other..... | 408 | 509 | 463 | 562 | 242 | 767 | 486 | 789 | 945 | 698 |
| Tuna..... | 190 | 157 | 11 | -- | -- | 1,657 | 1,517 | 808 | 1,273 | 980 |
| Other..... | 1,645 | 2,916 | 3,869 | 3,464 | 7,822 | 460 | 382 | 290 | 202 | 137 |
| Molluscs and Crustaceans | 11,576 | 15,993 | 14,047 | 15,370 | 16,915 | 1,230 | 1,623 | 1,786 | 1,955 | 2,441 |
| Clams— | | | | | | | | | | |
| Butter, little neck, razor, etc..... | 4,500 | 6,661 | 4,586 | 3,776 | 4,944 | 383 | 476 | 449 | 306 | 436 |
| Crabs..... | 1,802 | 1,999 | 3,193 | 4,188 | 4,514 | 403 | 475 | 663 | 879 | 996 |
| Oysters..... | 4,716 | 6,494 | 4,986 | 6,440 | 6,361 | 290 | 438 | 304 | 470 | 420 |
| Shrimps and prawns... | 545 | 825 | 1,259 | 951 | 1,088 | 149 | 227 | 361 | 290 | 282 |
| Other..... | 13 | 14 | 23 | 15 | 8 | 5 | 7 | 9 | 11 | 7 |
| Other | ... | ... | ... | ... | ... | 517 | 256 | 106 | 195 | 390 |
| Totals, Pacific Coast | ... | ... | ... | ... | ... | 84,148 | 57,234 | 65,103 | 69,351 | 60,032 |
| Inland | | | | | | | | | | |
| Freshwater Fish | 95,753 | 97,852 | 94,993 | 102,349 | 106,396 | 20,708 | 19,129 | 16,847 | 18,170 | 18,133 |
| Bass..... | 1,456 | 2,201 | 6,205 | 4,589 | 3 | 326 | 322 | 322 | 420 | 515 |
| Catfish..... | 1,776 | 1,968 | 1,938 | 1,676 | 1,535 | 326 | 370 | 313 | 258 | 246 |
| Herring, lake (cisco)... | 1,428 | 1,598 | 1,148 | 1,376 | 935 | 227 | 219 | 156 | 164 | 78 |
| Perch..... | 4,465 | 4,158 | 5,720 | 8,982 | 6,765 | 1,054 | 780 | 639 | 825 | 942 |
| Pickerel (blue)..... | 4,102 | 7,447 | 10,399 | 8,210 | 12,070 | 919 | 1,181 | 1,171 | 1,385 | 1,629 |
| Pickerel (yellow)..... | 17,073 | 16,606 | 15,974 | 16,759 | 19,739 | 4,778 | 4,143 | 3,708 | 3,784 | 4,364 |
| Pike..... | 7,238 | 6,635 | 5,389 | 5,930 | 6,980 | 822 | 602 | 539 | 591 | 703 |
| Saugers..... | 4,558 | 4,657 | 2,661 | 2,734 | 4,423 | 1,168 | 822 | 464 | 575 | 893 |
| Sturgeon..... | 372 | 307 | 476 | 400 | 392 | 300 | 234 | 379 | 271 | 325 |
| Trout..... | 6,491 | 6,588 | 5,658 | 5,945 | 6,011 | 1,908 | 2,069 | 1,569 | 1,712 | 1,452 |
| Tullibee..... | 9,588 | 8,825 | 8,922 | 8,234 | 9,231 | 666 | 493 | 555 | 583 | 571 |
| Whitefish..... | 26,505 | 27,895 | 25,571 | 24,577 | 21,990 | 7,640 | 7,295 | 6,502 | 7,032 | 5,870 |
| Other..... | 11,757 | 9,712 | 8,936 | 11,321 | 11,756 | 900 | 595 | 530 | 570 | 545 |
| Other | 2,601 | 5,072 | 11,223 | 13,838 | 12,563 | 181 | 325 | 413 | 402 | 503 |
| Totals, Inland | 98,354 | 102,924 | 106,216 | 116,187 | 118,959 | 20,889 | 19,454 | 17,260 | 18,572 | 18,636 |
| Grand Totals | ... | ... | ... | ... | ... | 174,663 | 148,956 | 149,332 | 162,507 | 156,024 |

¹ Excludes livers.² Includes value of livers and liver products.³ Included in "Other".

4.—Capital Investment in Primary Sea and Inland Fisheries Operations 1953-55

(Excluding Newfoundland)

| Kind of Equipment | 1953 | | 1954 | | 1955 | |
|---|-----------|----------------|-----------|----------------|-----------|----------------|
| | No. | \$'000 | No. | \$'000 | No. | \$'000 |
| Sea Fisheries | ... | 91,443 | ... | 90,707 | ... | 92,018 |
| Trawlers..... | 20 | 4,227 | 21 | 3,985 | 35 | 4,479 |
| Vessels—gasoline, diesel and sail..... | 2,255 | 33,535 | 2,268 | 34,999 | 2,338 | 36,523 |
| Boats—gasoline, diesel, sail and row..... | 26,533 | 26,333 | 26,262 | 24,633 | 25,504 | 22,977 |
| Packers, carrying boats and scows..... | 963 | 1,374 | 1,054 | 1,483 | 807 | 1,465 |
| Herring gill-nets..... | 40,708 | 1,092 | 43,695 | 1,132 | 41,134 | 1,067 |
| Mackerel nets..... | 25,503 | 765 | 25,041 | 757 | 22,988 | 736 |
| Salmon nets, traps and seines..... | ... | 4,842 | ... | 4,748 | ... | 5,077 |
| Smelt nets..... | 15,790 | 650 | 13,550 | 536 | 11,838 | 553 |
| Other nets, weirs and seines..... | ... | 3,400 | ... | 3,418 | ... | 3,784 |
| Tubs of trawl, skates of gear, hand-lines..... | ... | 1,340 | ... | 1,235 | ... | 1,151 |
| Lobster traps and pounds..... | 1,970,387 | 7,837 | 2,011,641 | 7,849 | 2,031,587 | 8,231 |
| Other gear..... | ... | 816 | ... | 850 | ... | 800 |
| Premises—piers, wharves, freezers, ice-houses, small fish- and smoke-houses..... | ... | 5,232 | ... | 5,082 | ... | 5,175 |
| Inland Fisheries | ... | 14,725 | ... | 15,842 | ... | 15,053 |
| Carrying boats..... | 82 | 481 | 77 | 526 | 105 | 548 |
| Boats, (gasoline) skiffs, canoes..... | 6,826 | 4,570 | 6,826 | 5,028 | 6,335 | 4,775 |
| Gill-nets..... | 225,547 | 5,022 | 246,254 | 5,421 | 238,703 | 5,280 |
| Other nets, weirs and seines..... | ... | 1,313 | ... | 1,340 | ... | 1,391 |
| Other gear..... | ... | 81 | ... | 81 | ... | 95 |
| Premises—piers, wharves, freezers, ice-houses, small fish- and smoke-houses..... | ... | 2,355 | ... | 2,343 | ... | 2,451 |
| Other equipment—fish tanks, bombardiers, trucks, snowmobiles, aircraft, etc..... | ... | 903 | ... | 1,103 | ... | 513 |
| Grand Totals | ... | 106,168 | ... | 106,549 | ... | 107,071 |

5.—Persons Employed in the Primary Fishing Industry 1953-55

(Excluding Newfoundland)

| Persons Employed in— | Sea Fisheries | | | Inland Fisheries | | |
|--|---------------|---------------|-------------------|------------------|---------------|---------------|
| | 1953 | 1954 | 1955 ¹ | 1953 | 1954 | 1955 |
| | No. | No. | No. | No. | No. | No. |
| Trawlers..... | 476 | 462 | 442 | — | — | — |
| Draggers ² | 720 | 832 | 886 | — | — | — |
| Vessels..... | 8,002 | 8,079 | 3,994 | — | — | — |
| Boats..... | 33,258 | 33,297 | 24,156 | 9,600 | 10,582 | 9,879 |
| Packers, carrying boats and scows..... | 1,117 | 610 | 526 | 132 | 172 | 202 |
| Fishing, not in boats..... | 2,270 | 1,770 | 1,861 | 8,100 | 7,458 | 7,729 |
| Totals, Employed | 45,843 | 45,950 | 44,701 | 17,832 | 18,212 | 17,810 |

¹ Classification of craft not available for British Columbia; total of 12,836 included for this Province in sea fisheries total.

² British Columbia draggers included with vessels for 1953 and 1954.

Subsection 2.—The Fish Processing Industry

The Census of Industry survey of the fish processing industry covers establishments engaged in the processing of fish at the secondary industrial level. Some fishermen also process the fish they land to a certain degree but their operations are not included; neither are the inland areas (Ontario, Prairie Provinces, Yukon Territory and the Northwest Territories) although some fish processing is done there. Summary statistics of sea fish processing establishments are shown in Table 6.

6.—Summary Statistics of Sea Fish Processing Establishments 1951-55

| Item | | 1951 | 1952 | 1953 | 1954 | 1955 |
|--------------------------------|------------|---------------|---------------|---------------|---------------|---------------|
| Establishments | No. | 633 | 635 | 607 | 586 | 574 |
| Newfoundland..... | " | 38 | 40 | 35 | 29 | 34 |
| Prince Edward Island..... | " | 55 | 54 | 47 | 41 | 36 |
| Nova Scotia..... | " | 203 | 198 | 199 | 184 | 194 |
| New Brunswick..... | " | 178 | 176 | 167 | 166 | 167 |
| Quebec..... | " | 96 | 89 | 82 | 84 | 71 |
| British Columbia..... | " | 63 | 78 | 77 | 82 | 72 |
| Employees | No. | 14,911 | 14,351 | 13,623 | 14,202 | 14,626 |
| Male..... | " | 10,698 | 10,329 | 9,833 | 10,225 | 10,283 |
| Female..... | " | 4,213 | 4,025 | 3,790 | 3,977 | 4,343 |
| Salaries and wages..... | \$'000 | 24,744 | 24,426 | 23,092 | 26,001 | 26,320 |
| Fuel and electricity used..... | " | 2,724 | 2,533 | 2,410 | 2,605 | 2,663 |
| Materials used..... | " | 101,621 | 86,458 | 85,908 | 95,633 | 101,921 |
| Value of products..... | " | 163,010 | 134,725 | 137,310 | 153,457 | 159,888 |

The most important species to the industry in point of value is the salmon, followed by cod, herring, haddock, lobster, plaice and sardines. The products of these species made up over 60 p.c. of the total value of output of the industry in 1955, as shown in Table 7.

7.—Principal Products of the Sea Fish Processing Industry by Quantity and Marketed Value 1954 and 1955

| Product | | 1954 | | 1955 | |
|--|----------|-----------|-----------------|-----------|-----------------|
| | | Quantity | Value | Quantity | Value |
| | | | \$'000 | | \$'000 |
| Salmon | | ... | 40,089.2 | ... | 33,991.1 |
| Canned..... | cases | 1,742,786 | 38,403.7 | 1,407,533 | 32,567.4 |
| Frozen fillets..... | '000 lb. | 1,440 | 593.3 | 810 | 343.3 |
| Mild-cured..... | " | 506 | 248.6 | 586 | 328.9 |
| Offal meal..... | ton | 2,111 | 251.3 | 1,654 | 232.7 |
| Smoked and kippered..... | '000 lb. | 226 | 100.0 | 268 | 133.7 |
| Offal oil..... | " | 1,149 | 80.9 | 1,554 | 128.0 |
| Pickled..... | bbl. | 233 | 18.4 | 229 | 18.5 |
| Other..... | | ... | 393.0 | ... | 238.6 |
| Cod | | ... | 23,742.1 | ... | 25,297.8 |
| Frozen fillets..... | '000 lb. | 30,159 | 5,755.0 | 39,847 | 7,410.4 |
| Dried, salted..... | " | 28,790 | 4,606.0 | 32,869 | 4,765.4 |
| Blocks and sticks..... | " | 15,148 | 3,341.0 | 18,800 | 3,601.3 |
| Green-salted..... | " | 22,285 | 1,671.0 | 29,783 | 2,541.7 |
| Fresh fillets..... | " | 16,372 | 2,940.9 | 12,798 | 2,346.5 |
| Boneless, salted..... | " | 7,424 | 1,885.4 | 6,739 | 1,734.8 |
| Smoked fillets..... | " | 5,327 | 1,276.5 | 4,776 | 1,016.5 |
| Body meal..... | ton | 6,111 | 784.6 | 14,955 | 864.2 |
| Destearinated medicinal liver oil..... | gal. | 39,090 | 83.0 | 314,989 | 499.4 |
| Other..... | | ... | 1,398.7 | ... | 517.6 |
| Herring | | ... | 9,935.8 | ... | 10,859.1 |
| Meal..... | ton | 33,018 | 4,747.1 | 30,313 | 4,733.0 |
| Oil, industrial..... | '000 lb. | 30,080 | 2,394.3 | 28,668 | 2,461.0 |
| Smoked, bloaters..... | " | 10,617 | 886.2 | 12,583 | 839.4 |
| Vinegar-cured fillets..... | bbl. | 20,762 | 419.9 | 24,605 | 551.0 |
| Canned, round..... | cases | 28,353 | 216.2 | 52,767 | 421.4 |
| Kippered..... | '000 lb. | 1,192 | 220.0 | 2,143 | 326.7 |
| Canned, kippered snacks..... | cases | 8,257 | 171.9 | 42,276 | 309.6 |
| Vinegar-cured, round..... | bbl. | 11,798 | 186.1 | 15,985 | 271.7 |
| Pickled..... | " | 22,936 | 263.7 | 13,278 | 210.8 |
| Smoked, boneless..... | '000 lb. | 671 | 85.8 | 462 | 102.3 |
| Other..... | | ... | 344.6 | ... | 632.2 |

7.—Principal Products of the Sea Fish Processing Industry by Quantity and Marketed Value 1954 and 1955—concluded

| Product | 1954 | | 1955 | |
|--|------------------------|----------------|----------------|----------------|
| | Quantity | Value | Quantity | Value |
| | | \$'000 | | \$'000 |
| Haddock | ... | 7,597.1 | ... | 9,753.6 |
| Frozen fillets..... | '000 lb. 15,690 | 3,473.2 | 20,100 | 4,120.1 |
| Blocks and sticks..... | " 7,105 | 1,609.4 | 16,977 | 3,382.3 |
| Fresh fillets..... | " 9,618 | 2,333.4 | 7,544 | 1,952.9 |
| Smoked, whole..... | " 635 | 163.2 | 770 | 196.4 |
| Other..... | ... | 17.9 | ... | 101.9 |
| Lobster | ... | 7,460.9 | ... | 8,147.4 |
| Meat..... | '000 lb. 2,032 | 3,473.1 | 3,536 | 5,588.2 |
| Canned..... | cases 90,188 | 3,840.0 | 39,398 | 2,392.5 |
| Other..... | ... | 144.8 | ... | 166.7 |
| Small Flat fishes¹ | '000 lb. 12,606 | 3,427.9 | 20,855 | 6,102.7 |
| Frozen fillets..... | " 3,617 | 1,002.6 | 3,888 | 1,149.7 |
| Fresh fillets..... | " 8,989 | 2,425.3 | 16,967 | 4,953.0 |
| Sardines, canned | cases 831,855 | 5,447.9 | 449,392 | 2,960.0 |

¹ Represents a homogeneous product.

In 1955 the output of fishery products and by-products in Canada at \$181,026,000 was slightly higher than the average for the previous five years but lower by 5 p.c. than in 1954. This drop was attributed to a smaller salmon pack and to unfavourable marketing conditions for halibut in British Columbia. On the East Coast, a smaller pack of canned sardines in New Brunswick and a drop in dried fish production in Newfoundland was compensated for by increased marketings of lobsters and groundfish fillets. The lobster fishery with its high market value is still of great importance to the Maritimes. In recent years there has been a diversion from canned production of this product to fresh or frozen meat. The growth in the production of frozen groundfish fillets is also a major development. Considerable plant expansion took place during 1955, particularly in Newfoundland.

8.—Atlantic Coast Production of Frozen Fillets 1951-55

(Includes fish blocks)

| Area and Species | 1951 | 1952 | 1953 | 1954 | 1955 |
|-------------------------------------|---------------|---------------|---------------|----------------|----------------|
| | QUANTITY | | | | |
| | '000 lb. | '000 lb. | '000 lb. | '000 lb. | '000 lb. |
| Maritimes | 30,555 | 40,488 | 36,500 | 55,189 | 58,455 |
| Cod..... | 14,075 | 19,270 | 12,998 | 22,812 | 18,870 |
| Haddock..... | 7,445 | 8,901 | 10,731 | 16,487 | 19,080 |
| Rosefish..... | 878 | 1,894 | 4,827 | 7,091 | 6,771 |
| Flatfish..... | 6,613 | 8,293 | 6,080 | 7,143 | 11,863 |
| Other..... | 1,544 | 2,130 | 1,864 | 1,656 | 1,871 |
| Quebec | 1,019 | 1,706 | 792 | 1,824 | 4,099 |
| Cod..... | 966 | 1,560 | 688 | 1,645 | 2,952 |
| Other..... | 53 | 146 | 104 | 179 | 1,147 |
| Newfoundland | 32,689 | 36,855 | 34,552 | 53,326 | 58,900 |
| Cod..... | 16,902 | 20,566 | 17,220 | 31,362 | 33,457 |
| Haddock..... | 2,021 | 3,563 | 5,195 | 13,663 | 16,492 |
| Rosefish..... | 9,659 | 8,716 | 8,028 | 5,622 | 4,830 |
| Flatfish..... | 3,987 | 3,732 | 4,014 | 2,487 | 3,983 |
| Other..... | 120 | 278 | 95 | 192 | 138 |
| Totals, Atlantic Coast | 64,263 | 79,049 | 71,844 | 110,339 | 121,454 |
| Cod..... | 31,943 | 41,396 | 30,906 | 55,819 | 55,279 |
| Haddock..... | 9,466 | 12,466 | 15,926 | 30,150 | 35,715 |
| Rosefish..... | 10,537 | 10,643 | 12,855 | 12,713 | 11,833 |
| Flatfish..... | 10,653 | 12,136 | 10,094 | 9,630 | 16,532 |
| Other..... | 1,664 | 2,408 | 2,063 | 2,027 | 2,095 |

8.—Atlantic Coast Production of Frozen Fillets 1951-55—concluded

| Area and Species | 1951 | 1952 | 1953 | 1954 | 1955 |
|---------------------------------------|---------------|---------------|---------------|---------------|---------------|
| | VALUE | | | | |
| | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Maritimes | 6,842 | 9,287 | 7,948 | 12,079 | 13,041 |
| Cod..... | 2,442 | 3,561 | 2,215 | 4,509 | 3,728 |
| Haddock..... | 1,776 | 2,273 | 2,541 | 3,915 | 4,324 |
| Rosefish..... | 193 | 471 | 948 | 1,380 | 1,198 |
| Flatfish..... | 2,208 | 2,583 | 1,831 | 1,870 | 3,405 |
| Other..... | 223 | 399 | 413 | 405 | 386 |
| Quebec | 186 | 269 | 120 | 217 | 765 |
| Cod..... | 168 | 234 | 96 | 174 | 496 |
| Other..... | 18 | 35 | 24 | 43 | 269 |
| Newfoundland¹ | 7,096 | 7,845 | 6,894 | 10,852 | 11,442 |
| Cod..... | 2,932 | 3,880 | 2,970 | 6,009 | 6,089 |
| Haddock..... | 482 | 900 | 1,149 | 3,009 | 3,257 |
| Rosefish..... | 2,243 | 1,850 | 1,621 | 1,131 | 888 |
| Flatfish..... | 1,331 | 1,175 | 1,141 | 661 | 1,180 |
| Other..... | 18 | 40 | 13 | 42 | 28 |
| Totals, Atlantic Coast | 14,034 | 17,401 | 14,962 | 23,148 | 25,248 |
| Cod..... | 5,542 | 7,675 | 5,281 | 10,692 | 10,313 |
| Haddock..... | 2,253 | 3,174 | 3,690 | 6,924 | 7,611 |
| Rosefish..... | 2,436 | 2,327 | 2,569 | 2,511 | 2,119 |
| Flatfish..... | 3,557 | 3,786 | 2,972 | 2,531 | 4,779 |
| Other..... | 241 | 439 | 450 | 490 | 426 |

¹ Value based on average export prices for respective years.

CHAPTER XIV.—FURS

CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

Section 1.—The Fur Industry

The fur industry, at one time the most vigorous and remunerative industry in Canada, still contributes many millions of dollars annually to the national income. Until the end of the 19th century practically all Canadian furs were wild-caught and, although fur farming has since developed rapidly, trapping still provides about half of the income from raw furs produced in Canada.

Wild fur-bearers are still taken, even in settled areas of this country, but the populations of such animals have in general been so reduced by the advance of settlement that the principal trapping areas now lie in the northern parts of the provinces and the Northwest Territories. Many wild animals, including some important fur-bearers, are subject to marked fluctuations in numbers from year to year. These fluctuations are often greatest and most nearly regular in northern regions and notably affect the number of pelts taken of certain wild species.

Another and perhaps more important factor governing the 'take' of furs from wildlife is the fluctuation in demand and in price consequent on changes in fashion. Thus the vogue of recent years for short-haired furs has caused a decrease in demand for fox and other long-haired pelts and a corresponding decrease in the number of such pelts taken by trappers. In areas such as parts of the Northwest Territories where these furs were formerly a staple source of income, this style change has resulted in serious hardship.

The most important aspects of management of the fur trapping industry are: constant practical scientific research, maintenance of suitable habitat, sound and balanced regulation of the trapping of fur-bearers, provision of competent and adequate field staffs, and free education of trappers with respect to the principles of wildlife management. By these means many areas depleted of fur-bearers have once again become productive. Such means will become increasingly important in maintaining Canada's position as a major producer of raw furs.

Most of the fur resources of the provinces of Canada are under the administration of the respective provincial governments. Exceptions include those resources within the boundaries of the National Parks and the Indian reserves, and the fur resources of the Yukon Territory and Northwest Territories all of which are under the administration of the Federal Government. The Canadian Wildlife Service of the Department of Northern Affairs and National Resources (see pp. 27-30) is responsible for all Federal Government interests in wildlife resources except for those activities closely related to Indian affairs. The Service co-operates with provincial governments and other agencies concerned and handles federal interests in relevant national and international problems.

Section 2.—Provincial and Territorial Fur Resources and Management*

Newfoundland.—Only a very small portion of the wild fur resources of Newfoundland is being utilized at present. Trapping is confined to areas in the vicinity of settlements and the operation of traplines is no longer practised in remote areas, which formerly provided the best pelts and the bulk of the fur harvest. This situation arises from the fact that other employment has become available to trappers. Steady income has raised their standard of living to such an extent that they can no longer depend on an occupation which fluctuates so drastically in both supply and market value. Thus no section of the population is now wholly or even partially dependent upon fur trapping for a livelihood and much of the wild fur crop remains unharvested.

Beaver offers the best basis for a revived fur industry within the Province but under present conditions there are not sufficient trappers to harvest the numbers required by managed fur resources.

Open seasons are declared annually upon such species as beaver, otter, muskrat, marten and mink, while hunting of fox and lynx is permitted throughout the year. These latter species have not been harvested to any extent in recent years and are now better known for their predation upon other species and upon livestock than for their fur.

The total value of wild furs produced decreased from \$360,000 in 1949-50 to \$158,000 in 1955-56, with a further decline in prospect if depressed prices for long-haired furs continue.

Prince Edward Island.—Wild fur-bearing animals are very plentiful on Prince Edward Island. Red fox, skunk and raccoon have become so numerous that all protection has been removed and bounties are paid on all three species. Beaver also have increased greatly but may be trapped only by permit secured from the Department of Industry and Natural Resources. There is no open season on beaver.

Ten years ago muskrats had become quite scarce but their population has increased and, being so easily trapped, they are now the best revenue producers. More than 3,000 of them are taken annually. Their increase is attributed largely to the shortening of the trapping season (now from Nov. 10 to Dec. 31) and to the strict enforcement of trapping regulations, which prohibit the setting of traps within ten feet of a muskrat house or den or the damaging of it. Mink are also increasing in number and are protected by a short trapping season. Mink is the only fur-bearing animal ranched to any extent in the Province.

Nova Scotia.—Nova Scotia is not a large producer of wild fur pelts. Trapping is seldom a full-time occupation but is a source of additional income to guides, woodworkers and farmers who live near fur-producing areas. There is usually a six-week open season (Nov. 1 to Dec. 31) for mink, otter, weasel and muskrat. The present low market prices for long-haired fur has discouraged the trapping of wildcat, fox and raccoon and these animals have been removed from the protected list. No licence is required for the trapping of fur-bearers other than beaver.

Since 1931 the Department of Lands and Forests has been redistributing live beaver which before that time had been almost completely trapped out. Today, beaver is an important part of the trappers' catch in most of the counties of the mainland, where an autumn season has been instituted. A few live beaver have also been introduced into Cape Breton Island but no open seasons have been proclaimed.

The red squirrel has also become important as a fur-bearer and in 1954 the laws were changed to permit trapping during the regular season and shooting during the rabbit season which lasts until the end of February.

* Provincial information received from the respective provincial governments and that for the Yukon and Northwest Territories from the Northern Administration and Lands Branch of the Department of Northern Affairs and National Resources, Ottawa.

Exports of wild fur for the year ended Mar. 31, 1955, included: 31,945 deer hides, and pelts of 4,445 beaver, 485 fox, 20 lynx, 2,857 mink, 40,441 muskrat, 212 otter, 1,253 raccoon, 41,757 red squirrel, 3,771 weasel and 178 wildcat.

Quebec.—Fur from wildlife is still a very important asset of the Province of Quebec despite the invasion of the forest for industrial purposes.

The number of pelts taken in the 1955-56 season was 254,138 including: muskrat 141,511, weasel 22,433, squirrel 16,918, beaver 36,302, white fox 3,042, mink 12,019, seal 8,289, red fox 3,325, otter 2,749, raccoon 2,394, lynx 1,469, fisher 1,401, marten 1,273, cross fox 234, skunk 276, blue fox 53, bear 221; and a few pelts of the other types of foxes, lynx cat, polar bear and wolf. The tax rate per pelt varies from one cent on squirrel to \$1 on fisher. The royalties revenue to the Province on the total take of furs in 1955-56 was \$73,096.

The fur resources of Quebec are administered by the Department of Game and Fisheries. Under the game laws and regulations it is unlawful to hunt, catch or trap fur-bearing animals out of season, or in season without a licence; to use poison to hunt or kill any animals; to destroy or damage lairs or burrows of fur-bearing animals; or to keep in captivity, without special permit, any game protected by law. Regulations also cover the marketing of furs. It is not permissible to buy or sell any fur or pelt for commercial purposes without a licence; neither is it permissible to ship any fur outside the Province, or from one place to another within the Province, or to a tanner, without a permit attached to the bill of lading or without royalty having been paid and each pelt stamped or sealed.

By Order in Council of Aug. 17, 1945, the first registered game territory for trappers was set up by the Provincial Government in the Counties of East Abitibi and West Abitibi. In 1946 the County of Pontiac was organized, in 1947 the County of Temiskaming and in 1952 the northern part of the County of Lavolette.

Regulations provide mainly that the land under lease must not exceed 50 sq. miles. The lessee, who pays an annual rental of \$10, is responsible for his own land which he must occupy 15 days before the opening of the trapping season and evacuate 15 days after its close. Each year he must make an inventory of his land and report on the location of the beaver huts thereon. He must hold a special permit to hunt beaver and must prove that there are at least five huts on his land. The quota allowed at the outset is one beaver per hut; as the population increases, the quota is raised to 1½ beavers per hut. Beaver pelts must be specially labelled before marketing. The present registered game territory extends over 30,000 sq. miles. More than 400 trappers hold permits for the capture of beaver. In addition, the Fur Service of the Department of Fish and Game administers 320,000 sq. miles of beaver preserves where Indians enjoy free trapping rights.

Steps are being taken also to assist in the re-establishment of marten, the population of which has been steadily decreasing.

Ontario.—The fur and big game wealth of Ontario is administered by the Division of Fish and Wildlife, Ontario Department of Lands and Forests, under the authority of the Ontario Game and Fisheries Act, the Wolf and Bear Bounty Act, and regulations thereunder.

In the production of wild-caught fur, Ontario leads all other Canadian provinces. In the 1955-56 season wild fur taken in Ontario was valued at almost \$3,000,000 and included pelts of 113,200 beaver valued at \$1,386,700. Other important species in order of decreasing total value were mink, muskrat, otter, fisher, raccoon, weasel, marten, red fox and lynx.

The high production of wild fur in this Province is attributed to the efficient system of fur management now in effect. Throughout most of the chief fur-producing areas all trappers—the majority of whom are Indians—are holders of registered trapline licences. Each trapper is registered with the Province as the sole permittee on a defined trapping area. Thus competitive trapping has been almost entirely eliminated in all but the primarily agricultural areas and the Department is in a position to set quotas to restrict the annual

take of the less abundant species during times of scarcity. Beaver, marten, fisher and lynx, comparatively rare in the Province a few years ago, have now attained populations which permit larger annual harvests to be taken than have been possible for many years.

Big Game.—A long season for moose in Ontario provides sport for hunters and meat for trappers. In most parts of the Province moose of any age or sex are legal game for the resident. In 1955 there were 8,959 resident moose licences sold and 1,141 non-resident licences; there was a known kill of 2,381 moose, made up of 1,354 bulls, 771 cows, 245 calves, and 11 unspecified.

Over 100,000 deer licences were sold in 1955 and about 30 p.c. of the hunters were successful in getting a deer. There is no open season on woodland caribou at present.

Manitoba.—In Manitoba, fur production and value showed a sharp decrease in 1955-56 as compared with the previous year. Furs taken from the wild were valued at \$2,239,892 as compared with the 1954-55 total of \$2,969,804, a decline of almost 25 p.c.

Registered traplines were extended into the southern portions of the Province and into a large area of the western portion around Swan River including the Duck Mountain Forest Reserve. Beaver is the major fur animal taken and beaver pelts from the registered trapline districts were valued at \$219,343 in 1954-55 as compared with \$152,400 in the previous year.

Wild fur production by species during 1955-56 included: 27,213 beaver, 15,708 mink, 1,301,972 muskrat, 123,237 squirrel, 95,119 weasel and 2,069 fox (silver, blue, cross, white and red).

The fur-ranching industry had a record production in 1955-56 of \$3,847,827, considerably exceeding the value of wild fur taken.

Saskatchewan.—Unethical practices and lack of management brought beaver to virtual extinction in Saskatchewan by 1944 and the trapping industry in general had reached a low ebb. The Government in 1945 appointed a committee to recommend what steps might be taken to encourage and assist persons dependent on fish and game for their livelihood, particularly in isolated northern areas. As a result the wildlife fur industry in Saskatchewan has been completely reorganized during the past ten years. The system of allowing only one trapper for a given area, inaugurated throughout the Province, is providing security for trappers on their traplines.

A Fur Marketing Service was established in Regina to give fur-producers a local auction where furs could be graded, displayed and sold. A Fur Conservation Agreement was concluded in 1946 whereby the Federal Government and the Government of Saskatchewan agreed to make certain annual expenditures for the purpose of managing fur and game and improving wildlife habitat in the northern isolated areas for the benefit of the residents of those areas. The particular interest of the Federal Government in this region is the welfare of Treaty Indians who are its wards. Regulations under the Agreement gave Indians, métis, and whites equal rights and security on their community, family or individual traplines. Local councils were elected by the trappers to act as spokesmen on their behalf when dealing with the provincial Department of Natural Resources. During the subsequent five years, 3,600 live beaver were moved from settled areas to new homes in the northern frontier where they were required for propagation purposes and for the improvement and maintenance of water levels. The result of this action has been a steady increase in the population of beaver, while the take has increased from approximately 400 pelts in 1943-44 to 41,666 in 1955-56.

A muskrat trapping program was inaugurated in southern Saskatchewan in 1946 under which each trapper in settled areas obtains a permit describing the area in which he is authorized to trap muskrats. General close seasons are a thing of the past and muskrats existing in any section may be trapped on the basis of the program. Average yearly production since 1946 has been almost tripled in relation to the average production for a similar earlier period. The 1955 crop of about 1,951,800 muskrats was the highest ever recorded in the Province; 1956 production was 1,731,978 pelts.

Other fur-bearers of economic importance are fisher, fox, lynx, marten, mink, otter, squirrel and rabbit. These animals have fluctuated in population and pelt value in the past but the increased production of beaver and muskrat has helped stabilize the income of the trapper. Most fur prices have declined in recent years, but the income received from Saskatchewan wildlife fur pelts has been maintained.

Badger, raccoon and wolverine are of little economic importance at present. Wolves, coyotes and foxes are on the predator list in settled areas and very comprehensive programs of control have been carried on to reduce the population of these animals. A paid hunter program has been in operation since 1948 to reduce the coyote population and these animals are no longer a problem in settled areas. In the autumn of 1954 the bounty on wolves was discontinued. Bait treated with poison, placed out on large lakes in isolated areas, is the present method of controlling wolves but only employees of the Department are allowed to handle the poison. This work is becoming increasingly important not only to protect game that is necessary to the welfare of people living in the north country but also to reduce the chances of spreading the rabies epidemic which has been apparent in the West during the past few years as well as hydatid disease which has been found in some species of big game.

The weasel is a valuable fur-bearer as well as a controller of rodents. Closure in large areas does not seem to increase the weasel population and the policy is now to hold a short autumn and early winter season in all areas where the normal winter season is not in effect. This gives the farm boys and others an opportunity to take some of these valuable fur-bearers.

The jack-rabbit is gaining in importance in recent years—approximately 100,000 were taken in 1956. The average price received for them was 58 cents.

Alberta.—The fur trade in Alberta has shown a steady decline over the past four or five years mainly because of the poor market for long-haired furs. There is practically no sale for pelts of such animals as coyotes, wolves, foxes, badgers and skunks and little for lynx and wolverine. Demand today is for squirrel, muskrat, ermine, mink and beaver in approximately that order of importance. There was a slight decline in fur prices during the fur season ended June 30, 1956, as compared with those obtained during the previous fur season. In 1956, beaver pelts sold at an average price of \$10.45 and muskrats at 91 cents per pelt compared with \$13.08 for beaver and 99 cents for muskrat in 1955.

The trapping industry has changed considerably in recent years. About 3,000 registered trappers operating registered traplines formerly provided the major part of the take. But the trapping of fur-bearing animals by owners and occupants of privately owned lands is becoming more prominent, especially of beaver and muskrat. In fact about 50 p.c. of the beaver trapped in Alberta now come from privately owned land, such trapping being permitted under a resident trapper's licence. Another noteworthy change is the gradual replacement of white trappers operating registered traplines by Indians and métis, who now make up nearly 43 p.c. of the total as compared with 30 p.c. three years ago; of the 2,800 registered trappers now operating, 1,200 are Indians.

In connection with the destroying of predators, it has been found that the paid hunter system gives better returns for the money invested than the old system of bounty payment. Bounties are now paid on cougars only, although certain well-equipped cougar hunters receive an additional \$25 from the Province for each cougar taken.

In 1956, the Game Regulations were changed to afford some protection for black and brown bear. These animals are now protected at all times except during the regular big game season.

The Wild Life Resources of Alberta are administered by the Fish and Game Branch of the Department of Lands and Forests under the supervision of a Fish and Game Commissioner.

British Columbia.—In 1926, effective control of fur-bearing animals in British Columbia commenced and a registered trapline system went into effect. Under this system registered trappers are granted exclusive rights over designated areas. Each is given a sketch map and legal description of the territory and is required to submit an annual 'return of catch' outlining the amount and kind of fur obtained. These returns provide an accurate check of the fur taken from each district. The system of registered traplines has worked remarkably well and is practically trouble-free.

Registered traplines cover all lands except private property, National Parks, Indian reserves, municipalities and certain other reserved areas. Trapping on private property may be pursued by the property owner himself or by someone to whom the owner has given permission, provided the trapper obtains a Special Firearms Licence which costs \$10 and which must be held by all trappers; this licence entitles the legal holder to hunt all types of large and small game. In 1955, 2,798 such licences were granted. In addition, about 1,500 Indians were engaged in trapping; because they are not required to be licensed at present, their take is not recorded and the fur records for the Province are incomplete to that extent.

Fur-bearers in the Province include bear, badger, beaver, fisher, fox, lynx, marten, mink, muskrat, otter, raccoon, skunk, squirrel, weasel and wolverine. Wolf, coyote, cougar and wildcat are classed as predators although the pelts of these animals are sometimes marketable. There is no close season on the predators or on raccoon, skunk, wolverine and black and brown bear. Raccoons and foxes have become so numerous in certain parts of the Province that they also may be considered as predators.

Trapping seasons are confined to the winter months, usually commencing Nov. 1, but beaver may be taken in some areas as late as May 24. Beaver are covered by tagging regulations under which the trapper is required to submit a yearly estimate of the number of beaver left on his trapline. Before setting out to trap he makes known to the game warden of his area the number of animals he wishes to take; if it is not excessive he receives a tag which must be attached to each pelt. Trappers are not allowed to take more than 25 p.c. of the total population of beaver in their areas and this has played an important part in saving the beaver from extinction. These animals are now so numerous in some areas that it has become necessary to move them to districts where their activity will not cause damage. Nuisance animals are usually liberated on Indian traplines in need of restocking.

Muskrat and squirrel are consistently the most important source of revenue among the furs of British Columbia. Marten was once in greatest demand, but mink appears to be taking precedence.

It is unlawful to ship fur out of or into the Province without permission and also to ship fur within the Province without plainly labelling the parcel with the sender's name, address and the number of his Special Firearms Licence. These regulations enable the game authorities to keep close control over fur shipments. Almost all of the raw fur business is centred in Vancouver and a game warden is posted there to supervise fur sales and fur traders. His regular visits to the traders keep infractions of the regulations at a minimum.

Low prices caused by changes in fashion and other factors such as the relatively high wages in construction and other industries, have made the trapping of fur for a livelihood unattractive in recent years. Little trapping is carried on today as compared with earlier years and in consequence fur-bearers have become quite prevalent in all parts of the Province. The number of pelts upon which royalty was paid during 1955 was 359,365, of which 76 p.c. were squirrel, 12 p.c. muskrat, 4 p.c. mink, 3 p.c. weasel and 2 p.c. beaver. The remainder included fisher, silver, red and cross fox, lynx, marten, otter and wolverine.

Yukon Territory.—Under registered trapline legislation introduced in 1950, 420 individual trapline registrations have been approved for the area extending from the southern border to the 65th parallel of latitude. Beyond this line to the northern boundary the trappers, who are nomadic bands of Indians, have registered on two group-trapping

areas; one, for the Loucheaux Band No. 10 of Old Crow, has 32 registrations approved for heads of families, and the other, for the Loucheaux Band No. 7 of Fort McPherson, N.W.T., has five registrations. The initial registration fee for a trapline, either group or individual, is \$10 and the annual renewal fee is \$5.

During the past few years, low fur prices have discouraged trapline activities and trappers have been forced to find other occupations. As a consequence, beaver, fox, lynx and squirrel are more prevalent and marten, mink and muskrat are more than holding their own in number. On the other hand, fisher, wolverine, otter and weasel are scarce. Pelts taken in the 1955-56 season included: 51,323 squirrel, 49,947 muskrat, 3,162 beaver, 949 marten, 837 weasel, 651 mink (plus ranch raised 125), 2,029 lynx, 24 cross fox, 59 red fox, 6 silver fox, 85 white fox, 48 otter, 42 fisher, 3 bear, white or polar, 29 bear not specified, 232 wolverine, 19 wolf and 4 coyote.

The only fur-bearing animal on a quota is beaver; trappers are permitted to shoot or trap one beaver, including bank beaver, from each beaver house. Trapping may be prohibited over an area covered by a trapline permit if this is considered necessary for the conservation of breeding stock. During the months of February, March and April 1957, the lethal control program conducted since 1953 against predators, particularly wolves, was extended in scope by the establishment of lethal stations as far north as the 66th parallel of latitude. Poisoned bait was distributed by aircraft over a large number of lakes where wolf concentrations were observed.

Game law enforcement is in the hands of the Royal Canadian Mounted Police; in addition three federal park wardens, 20 grade A and B guides and 15 appointed citizens act as game guardians.

Northwest Territories.—Utilization of the fur and game resources in the Northwest Territories is governed by the Northwest Territories Game Ordinance. Trapping privileges are available only to resident Indians and Eskimos and those white persons who were licensed to hunt and trap in the Territories prior to 1938 and who have continued to reside therein. Provision is also made for the issue of general hunting licences to the descendants of these white persons provided they have continued to reside in the Northwest Territories and are dependent upon hunting for a livelihood.

Because of the nomadic nature of the Eskimo and the large areas over which he must hunt and trap, there is no provision for trapline registration in the Franklin and Keewatin Districts though a number of game preserves have been established in the Territories. Largest of these is the Arctic Islands Game Preserve which comprises all the Arctic Islands north of the mainland and a large area on the mainland.

Provision under the Game Ordinance for the establishment of registered traplines became effective in the Mackenzie District on July 1, 1949. Under this legislation, exclusive trapping rights in limited areas are granted to the trappers to encourage them to manage carefully the fur-bearers found there and to effect improvements leading to increased fur production. The Mackenzie District is divided into eight Game Management Districts, covering 369,315 sq. miles—over 50 p.c. under registration. There are 271 individual registered areas and 102 group areas.

The downward trend of the fur market in recent years has caused trappers to lose interest in trapline activities; many have obtained employment elsewhere and others are reluctant to trap very far away from the settlements. After showing a considerable increase in 1954-55, the trapping industry declined again in 1955-56. In the latter year 366,000 pelts were taken valued at \$806,000 as compared with 478,000 in 1954-55 with a value of \$1,167,000. Thus the fur trade continues in a depressed condition and there is no indication of substantial revival. White fox production dropped to 27,720 in 1955-56 as compared with 60,483 in 1954-55 which was the peak year of the four-year cycle. Muskrat and beaver production also declined considerably mainly because of low prices for pelts.

Beaver are taken on a quota basis. Trappers are permitted to shoot or trap one beaver for each occupied beaver lodge. In areas where beaver are scarce and where conditions are suitable, transplant operations have been carried out. Close or short seasons

and, if necessary, quotas are established when a particular species of fur-bearing animal is being overtrapped. A wolf-poisoning program is carried out in areas where these animals have become detrimental to desirable wildlife.

Game law enforcement is the responsibility of wardens stationed at the principal settlements in the Mackenzie District; elsewhere in the Territories it is handled by the Royal Canadian Mounted Police.

Section 3.—Fur Farming

Fur-bearing animals were first raised in Canada on farms in Prince Edward Island about 1887 and in Quebec in 1898; today fur farming is carried on in all the provinces. Foxes were the first fur-bearers to be raised in captivity on a commercial scale but mink, chinchilla, raccoon, marten, fisher, fitch, nutria and others are now being reared. Mink are the most numerous, accounting for 93 p.c. of the total fur-bearing animals on farms in 1955; chinchilla followed with 6 p.c.

There was a slow and steady increase in the number of fur farms until 1920 when 587 were reported, followed by a period of more rapid growth from 1920 to 1938 when the number reached 10,454 with a production value of \$6,500,000. In 1939, when the London and other European markets were lost to the fur industry, prices declined and many fur farms went out of production. Though prices rose considerably after World War II, operating costs increased and the number of fur farms, particularly those conducted in conjunction with other farming operations, continued to decrease. By 1955 only 2,706 farms reported but the value of production had reached \$17,000,000.

Though the earliest and most intensive fur-farming operations were concerned with fox raising in the Maritime Provinces and Quebec, the sharp decline in the popularity of fox furs and the steady rise in mink resulted in Ontario and Western Canada taking predominant positions in the raising of fur animals. A distribution of the 433,266 animals on fur farms at Dec. 31, 1955, showed 18 p.c. in British Columbia, 41 p.c. in the Prairie Provinces, 26 p.c. in Ontario, 7 p.c. in Quebec and 8 p.c. in the Atlantic Provinces.

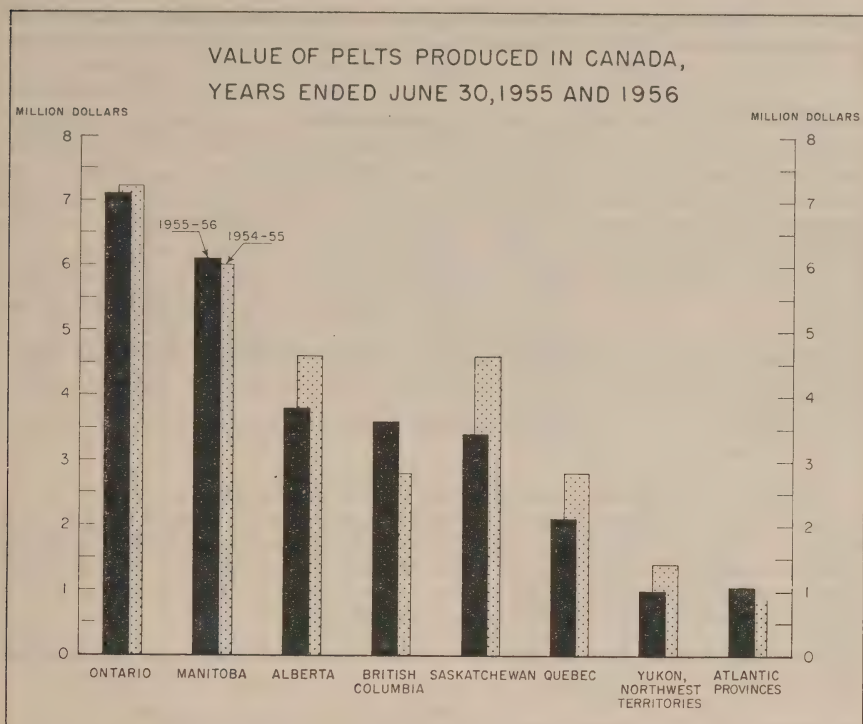
Furs have for centuries been used for clothing and adornment and the demands of fashion, encouraging the development of new colour phases in fox and mink, have been an important incentive to the fur-farming industry. There have always been mink mutations in the wild state but these unusual animals stood little chance of survival and such pelts were exceedingly rare. Starting with wild-caught mink, breeders have, by cross-breeding, produced mink furs in a variety of colours. Among the earliest mutations to appear was an attractive bluish gray mink which became known as platinum mink. Then mutations were crossbred and a still greater profusion of colour combinations appeared, notably the sapphire mink, a cross of the steel blue Aleutian with the blue gray platinum. Other unusual colour patterns are the royal pastel, a beautiful brown mink with a bluish cast, and an exquisite snow white mink.

In 1937 some chinchillas were imported into Saskatchewan and later into other provinces. These valuable little animals have a rich, soft fur. Although the original cost of chinchillas is high, the outlay for raising them is small. By 1955 there were 669 fur farms reporting 26,913 chinchillas valued at \$3,031,107.

Section 4.—Statistics of Fur Production*

Total Fur Production Statistics.—Early records of raw fur production were confined to the decennial censuses when account was taken of the number and value of pelts obtained by trappers. In 1920 the Dominion Bureau of Statistics commenced an annual survey of raw fur production. For a number of years the statistics were based on information supplied by the licensed fur trappers. More recently annual statements based on royalties, export tax, etc., have been made available by the provincial game departments (except Prince Edward Island), and these statements are used in the preparation of the statistics issued annually by the Bureau. Figures for Prince Edward Island are based on returns supplied to the Dominion Bureau of Statistics by fur dealers in that Province.

* Revised in the Agriculture Division, Dominion Bureau of Statistics.



1.—Pelts of Fur-Bearing Animals Produced and Percentage Sold from Fur Farms, Years Ended June 30, 1937-56

| Year | Pelts | | Percentage of Value Sold from Fur Farms ¹ | Year | Pelts | | Percentage of Value Sold from Fur Farms ¹ |
|-----------|------------|------------|--|-------------------------|-----------|------------|--|
| | Number | Value | | | Number | Value | |
| | | \$ | | | | \$ | |
| 1937..... | 6,237,640 | 17,526,365 | 40 | 1947..... | 7,486,914 | 26,349,997 | 37 |
| 1938..... | 4,745,927 | 13,196,354 | 43 | 1948..... | 7,952,146 | 32,232,992 | 37 |
| 1939..... | 6,492,222 | 14,286,937 | 40 | 1949..... | 9,902,790 | 22,899,882 | 33 |
| 1940..... | 9,620,685 | 16,668,348 | 31 | 1950..... | 7,377,491 | 23,184,033 | 34 |
| 1941..... | 7,257,337 | 21,123,161 | 26 | 1951..... | 7,479,272 | 31,134,400 | 36 |
| 1942..... | 19,561,024 | 24,859,869 | 19 | 1952 ² | 7,931,742 | 24,215,061 | 42 |
| 1943..... | 7,418,971 | 28,505,033 | 24 | 1953..... | 7,568,865 | 23,349,680 | 43 |
| 1944..... | 6,324,240 | 33,147,392 | 28 | 1954..... | 6,274,727 | 19,287,522 | 49 |
| 1945..... | 6,994,686 | 31,001,456 | 31 | 1955..... | 9,670,796 | 30,509,515 | 43 |
| 1946..... | 7,593,416 | 43,870,541 | 30 | 1956..... | 7,727,264 | 28,051,746 | 56 |

¹ Approximate.

² Wildlife pelts for Newfoundland included from 1952.

Ontario leads the provinces in value of fur production, accounting for 25 p.c. of the total in the 1955-56 season. Manitoba follows with 22 p.c., Alberta with 13 p.c., British Columbia 13 p.c., Saskatchewan 12 p.c., Quebec 8 p.c., the Atlantic Provinces 4 p.c. and the Yukon and Northwest Territories combined, with 3 p.c.

2.—Pelts of Fur-Bearing Animals Produced by Province, Years Ended June 30, 1955 and 1956

| Province or Territory | 1955 | | | 1956 | | |
|----------------------------|------------------|-------------------|---------------------------|------------------|-------------------|---------------------------|
| | Pelts | Value | Percentage of Total Value | Pelts | Value | Percentage of Total Value |
| | No. | \$ | | No. | \$ | |
| Newfoundland..... | 25,891 | 63,535 | 0.2 | 35,779 | 276,742 | 1.0 |
| Prince Edward Island..... | 8,064 | 115,570 | 0.4 | 3,943 | 50,011 | 0.2 |
| Nova Scotia..... | 114,560 | 547,231 | 1.8 | 86,686 | 362,597 | 1.3 |
| New Brunswick..... | 61,171 | 356,725 | 1.2 | 30,544 | 288,442 | 1.0 |
| Quebec..... | 349,963 | 2,765,347 | 9.1 | 298,198 | 2,095,561 | 7.5 |
| Ontario..... | 1,267,943 | 7,243,070 | 23.7 | 960,181 | 7,136,666 | 25.4 |
| Manitoba..... | 1,879,157 | 6,038,776 | 19.8 | 1,768,020 | 6,087,719 | 21.7 |
| Saskatchewan..... | 2,720,979 | 4,555,802 | 14.9 | 2,304,593 | 3,446,003 | 12.3 |
| Alberta..... | 2,029,338 | 4,582,937 | 15.0 | 1,317,164 | 3,770,226 | 13.4 |
| British Columbia..... | 522,604 | 2,830,659 | 9.3 | 446,491 | 3,576,444 | 12.7 |
| Yukon Territory..... | 213,515 | 242,944 | 0.8 | 109,576 | 155,777 | 0.6 |
| Northwest Territories..... | 477,611 | 1,166,919 | 3.8 | 366,089 | 805,558 | 2.9 |
| Canada..... | 9,670,796 | 30,509,515 | 100.0 | 7,727,264 | 28,051,746 | 100.0 |

Average prices for the pelts were generally lower in 1955-56 than in 1954-55. Of the nine kinds having the highest value of production, muskrat pelts dropped from \$1.16 in 1954-55 to \$0.95 in 1955-56, beaver from \$14.88 to \$12.10, squirrel from \$0.55 to \$0.46, ermine from \$1.57 to \$1.35, fisher from \$22.75 to \$22.04 and marten from \$9.49 to \$7.85. Increases were noted for mink including standard and mutation from \$19.38 to \$20.19, white fox from \$11.39 to \$13.14 and otter from \$25.70 to \$26.71.

3.—Pelts of Fur-Bearing Animals Taken by Kind, Years Ended June 30, 1955 and 1956

| Kind | 1955 | | | 1956 | | |
|-----------------------------|------------------|-------------------|---------------|------------------|-------------------|---------------|
| | Pelts | Total Value | Average Value | Pelts | Total Value | Average Value |
| | No. | \$ | \$ | No. | \$ | \$ |
| Badger..... | 249 | 81 | 0.33 | 271 | 95 | 0.35 |
| Bear, white..... | 530 | 14,840 | 28.00 | 454 | 11,490 | 25.31 |
| Bear, unspecified..... | 324 | 658 | 2.03 | 319 | 739 | 2.32 |
| Beaver..... | 320,389 | 4,767,232 | 14.88 | 282,036 | 3,412,108 | 12.10 |
| Coyote or prairie wolf..... | 5,400 | 13,855 | 2.57 | 4,534 | 11,072 | 2.44 |
| Ermine (weasel)..... | 301,059 | 474,036 | 1.57 | 379,597 | 512,163 | 1.35 |
| Fisher..... | 6,790 | 154,485 | 22.75 | 6,324 | 139,390 | 22.04 |
| Fox, blue..... | 888 | 5,142 | 5.79 | 331 | 2,180 | 6.59 |
| Fox, cross..... | 1,983 | 2,982 | 1.51 | 966 | 1,104 | 1.14 |
| Fox, new-type..... | 1,950 | 22,538 | 11.56 | 1,762 | 12,577 | 7.14 |
| Fox, red..... | 13,608 | 10,093 | 0.74 | 22,458 | 12,351 | 0.55 |
| Fox, silver..... | 6,315 | 52,609 | 8.33 | 4,683 | 31,184 | 6.66 |
| Fox, white..... | 81,783 | 931,607 | 11.39 | 31,728 | 417,027 | 13.14 |
| Fox, other..... | 26 | 70 | ... | 74 | 490 | ... |
| Lynx..... | 14,427 | 88,753 | 6.15 | 9,988 | 52,652 | 5.27 |
| Marten..... | 17,710 | 168,344 | 9.51 | 16,641 | 130,933 | 7.87 |
| Mink, standard..... | 499,321 | 9,103,196 | 18.23 | 515,548 | 9,895,874 | 19.19 |
| Mink, mutation..... | 296,975 | 6,325,103 | 21.30 | 363,282 | 7,851,762 | 21.61 |
| Muskrat..... | 5,619,277 | 6,518,993 | 1.16 | 4,518,731 | 4,313,453 | 0.95 |
| Otter..... | 15,294 | 393,064 | 25.70 | 14,492 | 387,143 | 26.71 |
| Rabbit..... | 91,064 | 50,253 | 0.55 | 117,709 | 66,815 | 0.57 |
| Raccoon..... | 33,675 | 65,743 | 1.95 | 36,807 | 81,743 | 2.22 |
| Skunk..... | 5,917 | 5,377 | 0.91 | 2,932 | 2,199 | 0.75 |
| Squirrel..... | 2,332,093 | 1,286,941 | 0.55 | 1,391,089 | 640,235 | 0.46 |
| Wildcat..... | 345 | 495 | 1.43 | 1,404 | 1,176 | 0.84 |
| Wolf..... | 1,228 | 4,837 | 3.94 | 558 | 2,510 | 4.50 |
| Wolverine..... | 485 | 7,647 | 15.77 | 599 | 10,546 | 17.61 |
| Other..... | 1,691 | 40,541 | ... | 1,947 | 50,735 | ... |
| Totals..... | 9,670,796 | 30,509,515 | ... | 7,727,264 | 28,051,746 | ... |

Fur Farm Statistics.—There were 2,706 fur farms operating in Canada in 1955 in comparison with 2,566 in the previous year. The increase resulted from the operation of a larger number of chinchilla farms and from the inclusion of fur farm statistics of Newfoundland for the first time.

Fur farms reporting foxes in 1955 numbered 189 as compared with 249 in the previous year; the number of foxes on farms was down by 32 p.c. and the value of these animals by 39 p.c. The number of mink farms increased from 1,858 to 1,912 during 1955. Farms having fewer than 80 mink decreased by 4 p.c. while those having 80 or more increased by 7 p.c. The number of mink on farms increased from 335,150 valued at \$9,632,795 in 1954 to 402,453 valued at \$11,880,147 in 1955. Fox pelt production increased from 6,836 valued at \$70,554 in 1954 to 7,238 valued at \$66,070 in 1955, and mink pelts from 677,014 valued at \$12,868,787 to 786,760 valued at \$15,787,520.

4.—Fur Farms and Value of Fur-Bearing Animals Thereon by Province 1954 and 1955

| Province. | Fur Farms at Year End | | Values of Fur-Bearing Animals on Fur Farms | |
|---------------------------|--------------------------|--------------|---|------------------------|
| | 1954 | 1955 | 1954 | 1955 |
| | No. | No. | \$ | \$ |
| Newfoundland..... | | 47 | | 412,116 ¹ |
| Prince Edward Island..... | 42 | 34 | 105,000 | 109,383 |
| Nova Scotia..... | 83 | 86 | 219,000 | 250,077 |
| New Brunswick..... | 116 | 112 | 363,000 | 353,513 |
| Quebec..... | 268 | 267 | 1,495,000 | 1,316,529 |
| Ontario..... | 702 ⁺ | 736 | 3,401,000 | 4,031,095 |
| Manitoba..... | 394 | 372 | 2,051,000 | 2,373,636 |
| Saskatchewan..... | 145 | 156 | 640,000 | 810,100 |
| Alberta..... | 446 | 481 | 2,120,000 | 2,109,448 |
| British Columbia..... | 370 | 415 | 2,547,000 | 3,240,504 ¹ |
| Totals..... | 2,566⁺ | 2,706 | 12,941,000 | 15,008,081 |

¹ Figures for one fox farm in Newfoundland and two in British Columbia are included in the total for Canada but are excluded from provincial totals.

5.—Fur-Bearing Animals on Fur Farms as at Dec. 31, 1954 and 1955

| Kind of Animal | 1954 | | 1955 ¹ | |
|---------------------------|----------------|-------------------|-------------------|-------------------|
| | No. | Value | No. | Value |
| | | \$ | | \$ |
| Fox— | | | | |
| Blue..... | 244 | 113,455 | 197 | 69,269 |
| Platinum..... | 409 | | 287 | |
| Pearl platinum..... | 1,395 | | 1,053 | |
| Silver..... | 2,662 | | 1,552 | |
| White-marked..... | 124 | | 131 | |
| Other..... | 44 | | 73 | |
| Mink— | | | | |
| Standard..... | 103,940 | 9,632,795 | 104,036 | 11,880,147 |
| Mutation— | | | | |
| Platinum (silverblu)..... | 61,584 | | 57,369 | |
| Pastel..... | 94,011 | | 127,439 | |
| Other..... | 75,615 | | 113,609 | |
| Chinchilla..... | 21,649 | 3,170,599 | 26,913 | 3,031,107 |
| Marten..... | 169 | 11,640 | 177 | 6,475 |
| Nutria..... | 224 | 10,702 | 316 | 19,290 |
| Raccoon..... | 87 | 586 | 84 | 548 |
| Other..... | 32 | 1,378 | 30 | 1,245 |
| Totals..... | 362,189 | 12,941,155 | 433,266 | 15,008,081 |

¹ Includes Newfoundland.

6.—Number and Value of Pelts Produced on Fur Farms by Kind 1954 and 1955

| Kind of Animal | 1954 | | 1955 ¹ | |
|----------------------------|----------------|-------------------|-------------------|-------------------|
| | No. | Value | No. | Value |
| | | \$ | | \$ |
| Fox— | | | | |
| Blue..... | 166 | 1,825 | 223 | 2,444 |
| Platinum..... | 512 | 4,214 | 468 | 3,963 |
| Pearl platinum..... | 1,832 | 23,391 | 2,291 | 22,909 |
| Silver..... | 4,191 | 40,272 | 4,119 | 35,982 |
| White-marked..... | 127 | 794 | 106 | 609 |
| Other..... | 8 | 58 | 26 | 163 |
| Mink— | | | | |
| Standard..... | 264,422 | 4,119,967 | 275,242 | 4,354,689 |
| Mutation— | | | | |
| Platinum (silverblue)..... | 141,060 | 2,414,448 | 134,509 | 2,450,174 |
| Pastel..... | 172,984 | 3,898,745 | 220,925 | 5,021,007 |
| Other..... | 98,548 | 2,435,627 | 156,084 | 3,961,650 |
| Chinchilla..... | 1,460 | 34,245 | 1,742 | 47,897 |
| Raccoon..... | 6 | 10 | 17 | 45 |
| Other..... | 105 | 986 | 72 | 765 |
| Totals..... | 685,421 | 12,974,582 | 795,829 | 15,902,297 |

¹ Includes Newfoundland.

Section 5.—Marketing of Furs

Montreal, Que., is the leading Canadian fur mart although auction sales are also held at Vancouver, B.C., Edmonton, Alta, Regina, Sask., and Winnipeg, Man. The Saskatchewan Government maintains a Fur Marketing Service at Regina to assist producers in that Province.

Grading.—The grading of furs to secure uniformity was introduced in 1939 by the federal Department of Agriculture so that furs may be purchased by grade without the necessity of buyers from other countries personally examining the pelts. Grading offers many advantages to the producer as well as to the trade in general. It educates the rancher as to the proper value of his pelts and creates an incentive to improve the quality of the product; it furnishes guidance in the planning of future matings, aids in raising the standard of quality of the entire crop of pelts and helps in advancing the level of prices for high quality pelts.

Exports and Imports.—Before World War II, Canada marketed fur pelts mainly in the United Kingdom but that market was practically dormant during the war years and the fur trade was carried on chiefly with the United States. A revival of trade with the United Kingdom took place after the War but almost 80 p.c. of Canadian fur exports still go to the United States.

The Canadian fur trade, both export and import, is mostly in undressed furs, the value of dressed and manufactured furs going out of or coming into Canada being a comparatively small proportion of the total. Exports consist largely of furs which Canada produces in greatest abundance, mink being the most valuable followed by beaver, muskrat and fox. Furs such as Persian lamb, certain types of muskrat, mink, sheep and lamb and squirrel make up the major portion of the imports.

In 1947 the Canadian Government sought to interest European buyers in Canadian furs by sponsoring an exhibit of ranch-raised furs at an international trade fair in Switzerland. This was the beginning of a series of exhibits in European countries—England, France, Italy and Switzerland—the primary purpose of which was to induce buyers to attend the sales or to purchase their requirements through brokers. These exhibits assisted in attracting attention to Canada as a producer of high quality furs.

Exports and imports of all furs to and from the United States, the United Kingdom and all countries are given for the years 1955 and 1956 in Table 7.

7.—Exports and Imports of Furs by Kind 1955 and 1956

| Kind of Fur | 1955 | | | 1956 | | |
|-------------------------|------------------|-------------------|-------------------|------------------|-------------------|-------------------|
| | United Kingdom | United States | All Countries | United Kingdom | United States | All Countries |
| EXPORTS | | | | | | |
| | \$ | \$ | \$ | \$ | \$ | \$ |
| Undressed— | | | | | | |
| Beaver..... | 1,052,094 | 3,199,510 | 4,458,569 | 1,015,442 | 2,330,198 | 3,730,349 |
| Ermine..... | 51,266 | 321,172 | 373,091 | 203,877 | 232,930 | 436,807 |
| Fisher..... | 104,267 | 68,689 | 192,887 | 111,241 | 55,317 | 185,517 |
| Fox, all types..... | 203,806 | 745,957 | 987,806 | 82,881 | 913,892 | 1,001,433 |
| Lynx..... | 139,800 | 55,862 | 201,544 | 49,645 | 39,519 | 89,709 |
| Marten..... | 57,490 | 146,215 | 205,707 | 39,572 | 99,465 | 139,165 |
| Mink..... | 863,243 | 16,058,268 | 17,100,477 | 698,437 | 15,636,199 | 16,673,847 |
| Muskrat..... | 1,234,748 | 2,029,795 | 3,290,427 | 1,323,427 | 1,069,132 | 2,453,676 |
| Otter..... | 15,902 | 88,301 | 107,251 | 5,610 | 34,601 | 51,615 |
| Rabbit..... | 103 | 67,454 | 67,557 | 415 | 89,426 | 92,578 |
| Raccoon..... | 694 | 50,906 | 51,600 | 408 | 23,446 | 23,854 |
| Seal..... | — | — | — | — | 36,491 | 36,491 |
| Skunk..... | 5,933 | 2,690 | 8,623 | 4,444 | 5,005 | 9,449 |
| Squirrel..... | 879,700 | 54,770 | 937,347 | 580,057 | 17,382 | 597,467 |
| Weasel..... | 8,449 | 143,132 | 151,901 | 96,412 | 111,853 | 208,265 |
| Wolf..... | 13,214 | 5,479 | 25,006 | 4,462 | 4,084 | 8,636 |
| Other..... | 22,291 | 95,697 | 127,130 | 8,172 | 132,071 | 154,247 |
| Dressed— | | | | | | |
| Fox..... | — | 1,774 | 2,224 | — | — | 391 |
| Other..... | 24,922 | 915,919 | 1,496,274 | 9,713 | 552,742 | 1,310,995 |
| Manufactured..... | 7,071 | 413,296 | 439,529 | 3,175 | 491,126 | 528,408 |
| Totals..... | 4,684,993 | 24,464,886 | 30,224,950 | 4,237,390 | 21,874,879 | 27,732,899 |
| IMPORTS | | | | | | |
| | \$ | \$ | \$ | \$ | \$ | \$ |
| Undressed— | | | | | | |
| China and Jap mink..... | 4,683 | 47,359 | 125,581 | 7,201 | 19,238 | 139,586 |
| Fox..... | 54,499 | 103,786 | 196,562 | 129,449 | 22,650 | 182,765 |
| Kolinsky..... | 123,854 | — | 248,122 | 126,319 | 385 | 278,207 |
| Marine..... | 115 | 23,484 | 23,599 | — | — | — |
| Mink..... | 159,745 | 2,951,320 | 3,153,227 | 130,953 | 3,371,412 | 3,731,975 |
| Muskrat..... | 136,395 | 3,324,762 | 3,463,008 | 112,911 | 2,034,050 | 2,221,729 |
| Opossum..... | 1,707 | 10,657 | 12,364 | — | 16,004 | 16,004 |
| Persian lamb..... | 1,712,384 | 5,838,567 | 8,236,090 | 2,306,723 | 5,715,927 | 8,684,322 |
| Rabbit..... | — | 34,386 | 263,007 | — | 59,998 | 224,415 |
| Raccoon..... | — | 860,328 | 860,328 | — | 806,987 | 806,987 |
| Sheep and lamb..... | 5,071 | 301,738 | 525,218 | 3,428 | 218,177 | 491,592 |
| Squirrel..... | 61,642 | 90,235 | 240,178 | 36,848 | 68,249 | 127,609 |
| Other..... | 478,261 | 1,187,802 | 2,757,394 | 309,374 | 1,098,598 | 2,325,936 |
| Dressed— | | | | | | |
| Rabbit..... | 3,596 | 7,722 | 66,915 | — | 8,135 | 51,772 |
| Sheep skins..... | 808 | 230,653 | 232,025 | 2,841 | 195,443 | 199,907 |
| Hatters furs..... | 248,062 | 523,318 | 1,337,995 | 35,198 | 590,343 | 1,113,234 |
| Other..... | 135,592 | 2,153,577 | 2,300,229 | 47,364 | 2,486,317 | 2,612,155 |
| Manufactured..... | 182,450 | 617,385 | 806,749 | 51,907 | 538,943 | 623,432 |
| Totals..... | 3,308,864 | 18,307,079 | 24,848,591 | 3,390,516 | 17,250,856 | 23,831,627 |

Section 6.—The Fur Processing Industry*

The rather general term 'fur processing' includes the fur dressing and dyeing industry and the fur goods industry. The former is concerned with the dressing or dyeing of pelts on a custom basis and the latter is a manufacturing industry that makes up fur goods such as coats, scarves and gloves.

* Prepared in the Animal Products Section, Industry and Merchandising Division, Dominion Bureau of Statistics.

Fur dressing and dyeing industry statistics were first recorded in 1917 when 12 establishments with 511 employees reported receipts of \$1,071,805. Eight establishments in 1924 reported revenues of \$1,120,895, expenditures of \$162,013 on dyes, chemicals and other materials used, and expenditures of \$561,233 on salaries and wages to 539 employees. Of the 3,473,909 skins treated in that year, muskrat pelts made up 47 p.c., rabbit 19 p.c. and squirrel 10 p.c.

The greatest number of skins treated was reported in 1941 when 14,592,079 were handled, but almost 53 p.c. of those were rabbit skins so that the revenue for that year was only \$2,476,289. The record revenue reported was that for 1949 when \$6,691,418 was received and rabbit skins constituted 38 p.c. of the total processed.

In 1955 the number of skins treated was 9,762,062, of which muskrat comprised 51 p.c., Persian and other types of lamb 13 p.c., mink 12 p.c., squirrel 9 p.c. and rabbit 7 p.c.

8.—Principal Statistics of the Fur Dressing Industry 1952-55

| Item | | 1952 | 1953 | 1954 | 1955 |
|---|-----|------------|------------|-----------|-----------|
| Establishments..... | No. | 17 | 16 | 17 | 18 |
| Employees on Salaries— | | | | | |
| Male..... | No. | 82 | 74 | 84 | 92 |
| Female..... | " | 30 | 24 | 19 | 24 |
| Employees on Wages— | | | | | |
| Male..... | No. | 942 | 900 | 859 | 876 |
| Female..... | " | 226 | 216 | 180 | 170 |
| Salaries paid..... | \$ | 460,998 | 440,036 | 437,131 | 538,703 |
| Wages paid..... | \$ | 2,865,534 | 2,749,531 | 2,562,980 | 2,756,638 |
| Cost of materials used (dyes, chemicals, etc.)..... | \$ | 1,177,345 | 1,026,173 | 963,538 | 1,121,805 |
| Pelts treated..... | No. | 12,085,066 | 11,001,366 | 9,279,897 | 9,762,062 |
| Amount received for treatment of furs..... | \$ | 6,061,850 | 5,920,014 | 5,634,991 | 6,498,292 |

Statistics on a comparable basis for the fur goods industry are available from 1921, when 219 establishments reported a gross value of production of \$13,639,609, employees numbered 2,621 and salaries and wages amounted to \$3,013,706. Cost of materials used in the manufacturing process totalled \$8,118,833. Principal statistics of the industry for the years 1952 to 1955 are given in Table 9.

9.—Principal Statistics of the Fur Goods Industry 1952-55

| Item | | 1952 | 1953 | 1954 | 1955 |
|---------------------------------|-----|------------|------------|------------|------------|
| Establishments..... | No | 596 | 600 | 581 | 558 |
| Employees on Salaries— | | | | | |
| Male..... | No. | 1,220 | 1,122 | 1,083 | 1,015 |
| Female..... | " | 355 | 314 | 282 | 257 |
| Employees on Wages— | | | | | |
| Male..... | No | 2,629 | 2,745 | 2,435 | 2,369 |
| Female..... | " | 1,765 | 1,764 | 1,489 | 1,378 |
| Salaries paid..... | \$ | 5,033,155 | 4,743,807 | 4,531,941 | 4,470,610 |
| Wages paid..... | \$ | 10,388,597 | 11,103,947 | 9,816,442 | 9,652,509 |
| Cost of materials used..... | \$ | 41,909,453 | 39,639,350 | 36,058,592 | 38,389,138 |
| Value of factory shipments..... | \$ | 66,245,562 | 63,991,716 | 58,464,790 | 60,349,381 |

Changes in living habits and standards in the past quarter-century are reflected in the type of goods produced by the fur goods industry. For example in 1921 there were 31,604 ladies' fur coats and jackets produced whereas in 1955 the number was 203,233. The manufacture of men's fur coats showed a decided reversal in the market; there were 5,692 men's fur or fur-lined coats manufactured in 1921 but only 149 in 1955.

CHAPTER XV.—MANUFACTURES

CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

This Chapter deals with manufacturing in Canada in three Parts. Part I reviews the manufacturing situation at the end of 1955, emphasizing particularly the fifteen leading industries. Part II provides general statistical analyses including: manufacturing statistics from 1917; detailed treatment of current production under various groupings and individual industries; and principal factors in manufacturing production such as capital expenditures, employment, salaries and wages and size of establishment. Part III deals with the provincial and local distribution of manufacturing production.

A special review of postwar growth of manufacturing within the framework of Canadian economic development appears in the 1956 Year Book, pp. 619-624.

PART I.—REVIEW OF MANUFACTURING

Canada is one of the world's largest manufacturing nations, probably ranking about sixth. Manufacturing contributed 29 p.c. of the net national income in 1955, which was almost as great a proportion as manufacturing holds in the United States, where it contributed 32 p.c. About one-quarter of the employed population in Canada were working in manufacturing in mid-1955.

Canada's position as one of the world's leading traders is based largely on the country's natural resources, and is reflected in the industrial structure. Three industries stand out as major exporters—the pulp and paper mills, the non-ferrous smelting and refining plants, and the sawmills. These three large exporters are all closely concerned with the processing of Canada's natural resources. The aluminum plants, which form part of the smelting and refining industry, are an exception, since they process imported raw materials, but the reason for their location in Canada is the abundant supply of another natural resource—water power.

Slaughtering and meat packing and the butter and cheese industry, two other resource-based industries appearing among the leading fifteen in value of shipments, were once important exporters but are now occupied in supplying the home market because demand for their products from a larger and more wealthy population has increased faster than production. The bakeries and the manufacturers of miscellaneous food preparations are also turning out much greater quantities of food for the growing population.

The growth of population is only one way in which Canada is providing a domestic market for more and more industrial produce. The range of industries supplying domestic needs has greatly expanded and at the same time the major export industries are finding an expanding market for their products in Canada. Growth stimulates growth. Canada's mines, forest industries, transport systems and service trades expand, and that expansion requires building materials, machinery and equipment. Every new factory provides an increased market for capital goods and for raw materials or semi-finished products. Thus the market for existing products expands calling for increased output, and a demand for new products springs up, which is met by imports until the market is able to support domestic production.

Fifteen industries were responsible for 46.4 p.c. of total shipments by manufacturers in 1955. Five of these were primarily engaged in meeting the requirements of the domestic consumer for goods required for current use—the four food-producing industries already mentioned, and the printing and publishing industry which derives most of its revenue from newspapers and periodicals. The three major exporting industries have also been mentioned, and the remaining seven of the fifteen leading industries are mainly occupied in meeting the requirements of Canadian industry for capital goods or materials, and the requirements of Canadian consumers for durable goods.

Several of the leading industries are controlled by interests in the United States. Information for 1955 is not available, but a special study for 1953 gave figures which are still of interest. The value of shipments of selected firms under United States control was expressed as a percentage of all shipments by the industry in question. For the exporting industries, 39 p.c. of shipments of the pulp and paper industry were made by United States-controlled firms in 1953, and 70 p.c. of the shipments of non-ferrous smelters and refineries. Data for sawmills were not available separately, but 6 p.c. of the shipments of the wood products industries were by firms controlled in the United States. For the main industries meeting current domestic needs, there were no such striking figures although 16 p.c. of the shipments of dairy products were from United States-controlled firms.

For the leading industries meeting manufacturers' needs and the needs of consumers for durables, the percentages of shipments made by United States-controlled firms in 1953 were as follows: petroleum products, 68 p.c.; motor vehicles, 98 p.c.; primary iron and steel, 7 p.c.; rubber goods, 78 p.c.; and motor vehicle parts, 67 p.c. Data for the aircraft and parts industry and the miscellaneous electrical products industry were not available separately.

In 1955, pulp and paper production was Canada's leading industry; shipments were valued at \$1,327,000,000. The pulp and paper mills are fed by the great coniferous forests, through which run extensive river systems. The rivers provide a means of transporting pulpwood to the mills, and also provide the power for generating electricity. The importance of cheap power to this industry is emphasized by the fact that, in 1955, it used about 34 p.c. of all the electricity utilized by Canadian manufacturers.

On the market side, there has been a great increase in the consumption of paper throughout the world, especially in North America. Increased education has advanced the sales of newspapers, books and other printed matter, and new uses are continually being found for paper—for building materials, packaging materials, electric insulation, and for a wide range of other purposes. In 1955, 74 p.c. of the industry's shipments consisted of paper—\$981,000,000 out of a total of \$1,327,000,000. Exports of paper and paper goods were valued at \$694,000,000 and exports of wood pulp at \$297,000,000. These exports, totalling \$991,000,000, amounted to 75 p.c. of production. The industry produced 10,151,000 tons of wood pulp in 1955, of which 2,383,000 tons were exported. The

remainder, together with about 502,000 tons of other material (mainly waste paper), was turned into 8,000,000 tons of paper including 6,196,000 tons of newsprint and 861,000 tons of paperboard; 5,763,000 tons of the newsprint were exported.

The non-ferrous smelting and refining industry, Canada's second largest manufacturing industry, shipped products to the value of \$1,212,000,000 in 1955. Canada is one of the world's leading producers of non-ferrous metals, standing first in the production of nickel, second in aluminum, third in zinc, fourth in lead, and fifth in copper. These figures do not include the metallic content of exported ore. Canada is the world's leading exporter of non-ferrous metals.

Many of the country's most important base-metal ore bodies were discovered before the turn of the century, but their complexity prevented early exploitation. Unlike important deposits in other countries, which consist largely of oxides or of sulphides of a single metal, they were found to contain ores of two or more base metals intimately associated and frequently containing appreciable quantities of precious metals, such as gold, silver and platinum. Their development was the result of considerable skill and enterprise. The industry operates smelters and refineries that rank among the largest and most highly integrated of their kind in the world. Cheap water power located near the ore bodies is another advantage that enabled the industry to sell in world markets at competitive prices. The industry is based largely on Canadian ores, with the major exception of the aluminum plants which import bauxite and alumina, depending on cheap electric power for their success in international trade.

Exports of products of this industry in 1955 included nickel in various forms (\$215,000,000), aluminum in primary forms (\$199,000,000), copper in primary forms (\$110,000,000), zinc slab or cake (\$47,000,000) and pig lead (\$22,000,000). These together amounted to about \$593,000,000, or 49 p.c. of the total value of the industry's shipments.

The petroleum products industry was the third largest of Canadian manufacturing industries, recording sales of \$1,049,000,000 in 1955. The industry used about 6,800,000,000 gal. of crude oil, of which 55.4 p.c. was from Canadian wells. The refineries of Quebec and the Maritimes continued to operate on imported oil because of their distance from Canada's western oil fields. However, the recent construction of pipelines has resulted in heavy consumption of Canadian crude by refineries in Ontario.

This industry has grown considerably in the past few years, keeping pace with general Canadian expansion. Special studies made of the net use of energy in Canada showed an increase from about 1,088,000,000,000 British thermal units in 1926 to about 2,171,000,000,000 in 1952. This growth was partly a result of the increase in population but the wider use of energy caused an increase in the net amount used per head of population from 115,000,000 B.t.u. in 1926 to 151,000,000 in 1952. The part played by liquid petroleum fuels in the total energy picture increased considerably over the period; in 1926, they supplied about 9 p.c. of Canada's net consumption of energy and in 1952 about 37 p.c. The advance resulted from increased use by industry, a large increase in the consumption of fuel oil for heating homes and buildings, and the conversion of the railroads to diesel locomotives.

Three of Canada's fifteen largest manufacturing industries are occupied in the production of transportation equipment; the motor vehicles industry ranked fourth in 1955 with sales of \$907,000,000, the aircraft and parts industry ninth with sales of \$354,000,000, and the motor vehicle parts industry fourteenth with sales of \$285,000,000.

The main items shipped by the motor vehicles industry were approximately 375,000 passenger cars valued at \$611,000,000, 78,000 trucks valued at \$136,000,000, and 557 buses valued at \$7,100,000. Of the vehicles shipped, 25,700 passenger cars worth \$20,000,000 (including 13,300 chassis without bodies) and 9,400 trucks worth about \$9,000,000 were shipped for export. Imports included about 48,500 passenger cars, 8,900 trucks and 500 buses, with a total value of \$114,000,000.

Taking into account production, imports and exports, the apparent supply of new vehicles in Canada in 1955 was 398,000 passenger cars and 79,000 commercial vehicles. This new supply was offset by the withdrawal from use of about 151,000 passenger cars and 21,000 commercial vehicles. Total registrations during the year covered 2,935,000 passenger cars and 938,000 commercial vehicles so that there was one passenger car for every 5.3 persons in the country. Taking all motor vehicles together, including motorcycles and tractors, there was one vehicle for every 4.0 persons. Ontario has one of the world's heaviest concentrations of automobile ownership. In that Province, there was one car for every 4.0 persons, one motor vehicle for every 3.2 persons, or 0.98 automobile for each family. By 1956 the latter figure had increased to 1.02 per family.

The production of aircraft and parts was a major industry in Canada during the Second World War, but output declined abruptly afterwards and as recently as 1950 amounted to only \$55,000,000. By 1955, however, its total shipments had increased again to \$354,000,000, including \$73,000,000 worth of parts alone, though this total was still well below the \$427,000,000 recorded in 1944. The recent growth in the industry began with the outbreak of war in Korea in 1950. Features of the expansion were the development of an all-Canadian long-range fighter for defence in the North and the production of several types of defence aircraft designed in the United States or the United Kingdom. The industry, however, is not dependent entirely on the defence program. Several types of aircraft have been developed to meet Canadian flying conditions, especially in the vast areas of the North, and these have also met with a good response from users abroad. The expansion of aircraft production has been accompanied by the establishment of facilities for producing many component items, some of them new to Canadian manufacturing, such as aircraft instruments, needle bearings, and special alloys to withstand the heat of jet engines.

The slaughtering and meat packing industry, which came fifth in 1955 with shipments valued at \$809,000,000, was the largest industry in the foods group. Also included among the fifteen leading industries were butter and cheese factories which came eighth with sales of \$427,000,000, the miscellaneous food preparations industry twelfth with sales of \$304,000,000, and bakeries thirteenth with sales of \$289,000,000. In terms of value added by manufacture, these industries, except for bakeries, would be considerably lower on the list. Their products are not so highly processed as are those of many other industries and much less is added in the manufacturing process to the value of their raw materials. Shipments by the slaughtering and meat packing industry included \$432,000,000 worth of fresh and frozen meats, \$120,000,000 worth of cured and smoked meats, and \$84,000,000 worth of sausage and cooked meats. Inedible by-products included \$8,900,000 worth of cattle hides. To produce these items, the industry slaughtered over 8,400,000 animals valued at \$467,000,000 in 1955.

Of the \$427,000,000 worth of shipments by butter and cheese factories in 1955, milk and cream sold as such brought in \$159,000,000, and ice cream \$36,000,000. About 306,000,000 lb. of butter and 81,000,000 lb. of cheese were shipped, together valued at \$202,000,000.

The miscellaneous food preparations industry ranked twelfth with sales of \$304,000,000. This industry depends largely on imported materials but sells almost entirely in the domestic market. Over one-third of the industry's activities are concerned with the roasting and packing of coffee, and the blending and packing of tea. Shipments of coffee were valued at \$73,000,000 and those of tea at \$47,000,000 in 1955.

The bread and other bakery products industry, which came thirteenth among the industries in 1955, produced goods to the value of \$289,000,000, all for the home market. Bread sales accounted for \$175,000,000 of this total; the average per capita consumption of bread was 98.1 lb., which was 7.3 lb. less than in 1953 and 2.4 lb. less than in 1954.

The lumber industry has been a mainstay of Canada's economy since the earliest days and in 1955 ranked as the sixth largest manufacturing industry of the country. In that year sawmill products shipped were valued at about \$644,000,000 and consisted mainly of lumber (\$542,000,000), shingles (\$30,000,000) and railroad ties (\$9,000,000).

Logs and bolts to the value of about \$311,000,000 were used, together with about \$28,000,000 worth of other materials and supplies. Of the lumber sawn, 63 p.c. by value was produced in British Columbia, 13 p.c. in Quebec, and 11 p.c. in Ontario. Softwoods made up 95 p.c. by quantity of the lumber sawn. Exports from Canada of sawmill products were valued at \$423,000,000 in 1955.

There has been a considerable expansion in the primary iron and steel industry in recent years and important technical developments have been pioneered in Canada, including the continuous casting of steel shapes and a faster process for the use of oxygen in steel-making. In 1955, shipments valued at \$526,000,000 placed the industry seventh among the industries of the country. Production amounted to 4,535,000 tons of steel. Few of the steel ingots produced were sold as such, nearly all of them being further processed by the makers. About 23 p.c. of the pig iron produced was sold to other firms.

The industry is dominated by four integrated plants, two of them at Hamilton, Ont., and one each at Sydney, N.S., and Sault Ste. Marie, Ont. There are also other steel plants across the country which feed their furnaces on purchased pig iron and scrap, and two blast furnaces which do not form part of an integrated steel plant. The industry uses a good deal of Canadian iron ore and coke from Canadian coal, but imported ore is mainly used. This is partly because some plants can ship ore more conveniently from United States mines than from Canadian mines, and partly because a blast furnace requires a range of different types of iron ore, and must therefore rely on varied sources.

The miscellaneous electrical apparatus and supplies industry, the main products of which are electric wire and cables, electric light bulbs and fluorescent tubes, came tenth on the list of industries in 1955 after having appeared within the fifteen leading industries for the first time in 1954. This industry is only one of the electrical industries showing extremely rapid growth in recent years. While the miscellaneous industry shipped goods to the value of \$325,000,000, in 1955 the radio and radio parts industry had a production valued at \$263,000,000, the heavy electrical machinery industry at \$198,000,000, the refrigerators, vacuum cleaners and appliances industry at \$136,000,000, and the batteries industry at \$40,000,000. Other industries also produce wire and cables and electric light bulbs and tubes, and the total output of these commodities in 1955 amounted to \$151,000,000 and \$22,000,000 respectively.

The rubber goods industry, eleventh in the field with shipments of \$322,000,000 in 1955, depends mainly on the home market. It is heavily influenced by the automotive industry because tires and tubes together make up over half the shipments, the other major item being rubber footwear. Of the rubber used in 1955, 44.5 p.c. was imported natural rubber, 40.4 p.c. was domestically produced synthetic rubber and the remainder was reclaimed rubber.

The printing and publishing industry, with sales valued at \$275,000,000 in 1955, came fifteenth among the industries. This industry is rather unique in that it pays more in salaries and wages than it spends on raw materials—\$108,000,000 as against \$75,000,000; in 1955 of the total sales, newspapers accounted for \$171,000,000. Advertising brought in \$127,000,000 of that amount and the remaining \$44,000,000 came from the actual cash price of the newspapers.

PART II.—STATISTICS OF MANUFACTURING

Section 1.—Growth of Manufacturing

It is impossible to give absolutely comparable statistics of manufacturing over a long period of years. From 1870 to 1915 statistics were collected only in connection with decennial or quinquennial censuses and there was inevitably some variation in the information collected. The annual Census of Manufactures was instituted in 1917 and, though numerous changes have been made since then in the information collected and the treatment of the data, an effort has been made to carry all major revisions back to 1917, so that the figures for the period since then are on a reasonably comparable basis.

Beginning in 1952 the Bureau of Statistics changed its policy with regard to the collection of statistics on the production of manufactured goods. Firms in several industries where year-end inventory changes were known to be insignificant were requested to report value of shipments f.o.b. plant instead of gross value of products. Under the "value of products" concept, establishments were asked to report the factory selling value of the products made whether sold or not, the unsold portion being assigned the average selling value of similar articles sold during the year. Under the "value of shipments" concept, establishments are required to report their sales during the year regardless of when the products were made, an item usually readily available from the firms' records. The changeover was made to provide increased ease in reporting for the majority of plants and at the same time to produce more reliable and useful statistics.

1.—Summary Statistics of Manufactures 1917-55

NOTE.—Statistics of manufacturing from 1870 have been published but between that year and 1917 figures are not on a comparable basis to the series given below. Statistics for significant years appear in the 1943-44 Year Book, p. 363. Figures of the non-ferrous metal smelting industries were first included with manufactures in 1925.

| Year | Estab- lish- ments | Employees | Earnings | Cost at Plant of Materials Used | Value Added by Manufacture ¹ | Gross Value of Products ² |
|-------------------------|--------------------------|-----------|---------------|---------------------------------------|---|--|
| | No. | No. | \$ | \$ | \$ | \$ |
| 1917..... | 21,845 | 606,523 | 497,801,844 | 1,539,678,811 | 1,281,131,980 | 2,820,810,791 |
| 1918..... | 21,777 | 602,179 | 567,991,171 | 1,827,631,548 | 1,399,794,849 | 3,227,426,397 |
| 1919..... | 22,083 | 594,066 | 601,715,668 | 1,779,056,765 | 1,442,400,638 | 3,221,457,403 |
| 1920..... | 22,532 | 598,893 | 717,493,876 | 2,085,271,649 | 1,621,273,348 | 3,706,544,997 |
| 1921..... | 20,848 | 438,555 | 497,399,761 | 1,365,292,885 | 1,123,694,263 | 2,488,987,148 |
| 1922..... | 21,016 | 456,256 | 489,397,230 | 1,272,651,585 | 1,103,266,106 | 2,375,917,691 |
| 1923..... | 21,080 | 506,203 | 549,529,631 | 1,456,595,367 | 1,206,332,107 | 2,662,927,474 |
| 1924..... | 20,709 | 487,610 | 534,467,675 | 1,422,573,946 | 1,075,458,459 | 2,570,561,931 |
| 1925 ³ | 20,981 | 522,924 | 569,944,442 | 1,571,788,252 | 1,167,936,726 | 2,816,864,958 |
| 1926 ³ | 21,301 | 559,161 | 625,682,242 | 1,712,519,991 | 1,305,168,549 | 3,100,604,637 |
| 1927 ⁴ | 21,501 | 595,052 | 662,705,332 | 1,741,128,711 | 1,427,649,292 | 3,257,214,876 |
| 1928 ⁴ | 21,973 | 631,429 | 721,471,634 | 1,894,027,188 | 1,597,887,676 | 3,582,345,302 |
| 1929 ⁴ | 22,216 | 666,531 | 777,291,217 | 2,029,670,813 | 1,755,386,937 | 3,883,446,116 |
| 1930 ⁴ | 22,618 | 614,696 | 697,555,378 | 1,664,787,763 | 1,522,737,125 | 3,280,236,603 |
| 1931..... | 23,083 | 528,640 | 587,566,990 | 1,221,911,982 | 1,252,017,248 | 2,555,126,448 |
| 1932..... | 23,102 | 468,833 | 473,601,716 | 954,381,097 | 955,960,724 | 1,980,417,543 |
| 1933..... | 23,780 | 468,658 | 436,247,824 | 967,788,928 | 919,671,181 | 1,954,075,785 |
| 1934..... | 24,209 | 519,812 | 503,851,055 | 1,229,513,621 | 1,087,301,742 | 2,393,692,729 |
| 1935..... | 24,034 | 556,664 | 559,467,777 | 1,419,146,217 | 1,153,485,104 | 2,653,911,209 |
| 1936..... | 24,202 | 594,359 | 612,071,434 | 1,624,213,996 | 1,289,592,672 | 3,002,403,814 |
| 1937..... | 24,834 | 600,451 | 721,727,037 | 2,006,926,787 | 1,508,924,867 | 3,625,459,500 |
| 1938..... | 25,200 | 642,016 | 705,668,589 | 1,807,478,028 | 1,428,286,778 | 3,337,681,366 |
| 1939..... | 24,805 | 658,114 | 737,811,153 | 1,836,159,375 | 1,531,051,901 | 3,474,783,528 |
| 1940..... | 25,513 | 762,244 | 920,872,865 | 2,449,721,903 | 1,942,471,238 | 4,529,173,316 |
| 1941..... | 26,293 | 961,178 | 1,264,862,643 | 3,296,547,019 | 2,605,119,788 | 6,076,308,124 |
| 1942..... | 27,862 | 1,152,091 | 1,682,804,842 | 4,037,102,725 | 3,309,973,758 | 7,553,794,972 |
| 1943..... | 27,652 | 1,241,068 | 1,987,292,384 | 4,690,493,083 | 3,816,413,541 | 8,732,860,999 |
| 1944..... | 28,483 | 1,222,882 | 2,029,621,370 | 4,832,333,356 | 4,015,776,010 | 9,073,692,519 |
| 1945..... | 29,050 | 1,119,372 | 1,845,773,449 | 4,473,668,847 | 3,564,315,899 | 8,250,368,866 |
| 1946..... | 31,249 | 1,058,156 | 1,740,687,254 | 4,358,234,767 | 3,467,004,980 | 8,356,692,471 |
| 1947..... | 32,734 | 1,131,750 | 2,085,925,966 | 5,534,280,019 | 4,292,055,802 | 10,081,026,580 |
| 1948..... | 33,420 | 1,155,721 | 2,409,368,190 | 6,632,881,628 | 4,938,786,981 | 11,875,169,685 |
| 1949 ⁴ | 35,792 | 1,171,207 | 2,591,890,657 | 6,843,231,064 | 5,330,566,434 | 12,479,593,300 |
| 1950..... | 35,942 | 1,183,297 | 2,771,267,435 | 7,538,534,632 | 5,942,058,229 | 13,817,526,381 |
| 1951..... | 37,021 | 1,258,375 | 3,276,280,917 | 9,074,526,353 | 6,940,946,783 | 16,392,187,132 |
| 1952..... | 37,929 | 1,288,382 | 3,637,620,160 | 9,146,172,494 | 7,443,533,199 | 16,982,687,035 |
| 1953..... | 38,107 | 1,327,451 | 3,957,018,348 | 9,380,558,682 | 7,993,069,351 | 17,785,416,854 |
| 1954..... | 38,028 | 1,267,966 | 3,896,687,691 | 9,241,857,554 | 7,902,124,137 | 17,554,527,504 |
| 1955..... | 38,182 | 1,298,461 | 4,142,409,534 | 10,338,202,165 | 8,753,450,496 | 19,513,933,811 |

¹ For 1924-51, inclusive, the value added by manufacture is computed by subtracting the cost of fuel, electricity and materials from the gross value of products; for 1952 and 1953 the deduction is made from value of factory shipments and for 1954 and 1955 from the calculated value of production. Figures prior to 1924 are not comparable because statistics for cost of electricity are not available. ² In 1952 gross value of products was replaced by value of factory shipments; see text immediately preceding this table. ³ A change in the method of computing the number of wage earners in the years 1925 to 1930, inclusive, increased the number somewhat over that which the method otherwise used would have given. In 1931, however, the method in force prior to 1925 was re-adopted. ⁴ Newfoundland included from 1949 but fish processing in that Province was excluded in 1949 and 1950.

Provincial distribution of manufactures is shown for certain years from 1917 to 1955 in Table 2.

2.—Summary Statistics of Manufactures by Province, Significant Years 1917-55

| Province and Year | Estab- lish- ments | Employees | Earnings | Cost at Plant of Materials Used | Value Added by Manufacture ¹ | Gross Value of Products ² |
|----------------------------------|--------------------------|-----------|---------------|---------------------------------------|---|--|
| | No. | No. | \$ | \$ | \$ | \$ |
| Newfoundland— | | | | | | |
| 1917..... | 793 | 6,934 | 15,486,336 | 31,228,173 | 32,918,776 | 67,264,282 |
| 1920..... | 939 | 10,575 | 26,604,908 | 44,972,021 | 57,784,697 | 106,524,603 |
| 1954..... | 790 | 9,892 | 30,101,186 | 46,503,032 | 59,483,922 | 109,567,770 |
| 1955..... | 785 | 10,361 | 28,604,468 | 49,914,856 | 60,586,922 | 115,579,036 |
| Prince Edward Island— | | | | | | |
| 1917..... | 411 | 1,556 | 663,251 | 3,087,621 | 1,750,135 | 4,837,756 |
| 1920..... | 370 | 1,287 | 855,210 | 4,164,223 | 2,135,857 | 6,300,080 |
| 1929..... | 263 | 2,074 | 727,286 | 2,862,725 | 1,466,446 | 4,408,608 |
| 1933..... | 249 | 991 | 529,684 | 1,590,834 | 1,126,826 | 2,775,787 |
| 1939..... | 222 | 1,088 | 617,945 | 2,239,117 | 1,243,979 | 3,643,681 |
| 1944..... | 241 | 1,786 | 1,694,763 | 6,993,510 | 3,570,835 | 11,713,644 |
| 1946..... | 246 | 1,755 | 1,651,469 | 7,582,046 | 3,469,435 | 10,200,310 |
| 1949..... | 251 | 1,747 | 2,133,555 | 13,537,144 | 4,338,320 | 13,123,200 |
| 1953..... | 216 | 1,809 | 3,095,845 | 16,963,798 | 5,878,761 | 23,198,970 |
| 1954..... | 209 | 1,774 | 3,000,211 | 17,001,551 | 6,044,749 | 23,469,743 |
| 1955..... | 204 | 1,769 | 3,074,085 | 16,803,035 | 6,431,660 | 23,628,831 |
| Nova Scotia— | | | | | | |
| 1917..... | 1,337 | 25,252 | 18,838,051 | 102,415,215 | 57,565,703 | 159,980,918 |
| 1920..... | 1,345 | 23,425 | 25,625,089 | 85,724,785 | 61,371,243 | 147,096,028 |
| 1929 ³ | 1,094 | 19,986 | 16,905,885 | 50,725,562 | 35,676,421 | 89,787,548 |
| 1933..... | 1,277 | 12,211 | 9,604,680 | 25,354,319 | 19,988,257 | 47,912,432 |
| 1939..... | 1,083 | 17,627 | 16,651,685 | 43,332,195 | 35,885,563 | 83,139,572 |
| 1944..... | 1,281 | 37,812 | 59,940,411 | 103,463,123 | 93,376,638 | 204,421,664 |
| 1946..... | 1,397 | 29,724 | 43,060,259 | 100,354,480 | 71,738,873 | 178,793,420 |
| 1949..... | 1,480 | 29,311 | 54,686,577 | 135,841,899 | 102,294,298 | 247,592,389 |
| 1953..... | 1,591 | 32,040 | 76,390,755 | 180,543,535 | 127,917,165 | 320,012,264 |
| 1954..... | 1,526 | 29,611 | 71,740,240 | 161,294,873 | 129,777,850 | 300,072,733 |
| 1955..... | 1,524 | 30,218 | 76,555,923 | 175,194,419 | 139,646,423 | 331,129,690 |
| New Brunswick— | | | | | | |
| 1917..... | 943 | 19,710 | 12,893,014 | 32,380,621 | 27,027,725 | 59,408,346 |
| 1920..... | 901 | 19,007 | 19,266,821 | 60,812,641 | 45,803,164 | 106,615,805 |
| 1929..... | 803 | 17,952 | 15,127,716 | 39,800,366 | 26,640,786 | 68,145,012 |
| 1933..... | 747 | 11,336 | 9,308,100 | 20,442,421 | 18,166,713 | 41,345,622 |
| 1939..... | 803 | 14,501 | 13,659,162 | 35,617,614 | 27,041,195 | 66,058,151 |
| 1944..... | 937 | 23,164 | 32,345,080 | 83,993,599 | 62,258,478 | 152,106,577 |
| 1946..... | 993 | 22,732 | 33,151,919 | 96,389,299 | 67,733,377 | 170,753,741 |
| 1949..... | 1,060 | 23,446 | 44,219,819 | 131,804,253 | 91,187,375 | 231,506,191 |
| 1953..... | 1,094 | 24,471 | 59,753,045 | 163,797,711 | 120,617,345 | 295,750,419 |
| 1954..... | 1,057 | 22,107 | 55,109,428 | 157,215,921 | 118,015,815 | 287,350,600 |
| 1955..... | 1,052 | 22,434 | 56,683,345 | 160,905,219 | 120,808,214 | 294,829,050 |
| Quebec— | | | | | | |
| 1917..... | 7,032 | 188,043 | 141,008,616 | 355,212,984 | 380,882,409 | 766,095,393 |
| 1920..... | 7,530 | 183,748 | 202,516,550 | 553,558,520 | 499,643,217 | 1,053,201,737 |
| 1929 ³ | 6,948 | 206,580 | 225,226,808 | 537,270,055 | 537,796,395 | 1,108,592,775 |
| 1933..... | 7,856 | 157,481 | 134,696,386 | 292,560,568 | 288,504,782 | 604,496,078 |
| 1939..... | 8,373 | 220,321 | 223,757,767 | 536,828,039 | 470,385,279 | 1,045,757,585 |
| 1944..... | 9,656 | 424,115 | 668,156,053 | 1,494,253,053 | 1,350,519,134 | 2,929,685,183 |
| 1946..... | 10,818 | 357,276 | 565,986,105 | 1,297,009,099 | 1,125,991,848 | 2,497,971,521 |
| 1949..... | 11,579 | 390,275 | 809,579,270 | 2,027,793,643 | 1,651,629,668 | 3,788,497,123 |
| 1953..... | 12,132 | 441,555 | 1,225,573,314 | 2,816,373,112 | 2,424,647,499 | 5,386,784,863 |
| 1954..... | 12,191 | 424,095 | 1,214,661,400 | 2,806,248,363 | 2,448,027,538 | 5,395,786,644 |
| 1955..... | 12,194 | 429,575 | 1,271,077,953 | 3,152,541,331 | 2,622,333,056 | 5,922,367,074 |
| Ontario— | | | | | | |
| 1917..... | 9,061 | 299,389 | 258,393,065 | 794,556,502 | 662,174,261 | 1,456,730,763 |
| 1920..... | 9,113 | 295,674 | 362,941,317 | 1,071,843,374 | 792,267,562 | 1,864,110,936 |
| 1929..... | 9,348 | 328,533 | 406,622,627 | 1,056,530,202 | 916,971,816 | 2,020,492,433 |
| 1933..... | 9,542 | 324,816 | 220,530,088 | 464,544,563 | 465,103,842 | 955,776,858 |
| 1939..... | 9,834 | 318,871 | 378,376,209 | 907,011,461 | 791,428,569 | 1,745,674,707 |
| 1944..... | 10,731 | 564,392 | 975,038,060 | 2,310,347,858 | 1,930,043,913 | 4,339,797,784 |
| 1946..... | 11,424 | 498,120 | 845,216,547 | 2,001,900,592 | 1,659,284,622 | 3,754,523,701 |
| 1949..... | 12,951 | 557,190 | 1,305,544,434 | 3,256,454,918 | 2,708,554,013 | 6,103,804,834 |
| 1953..... | 13,114 | 634,554 | 2,017,982,218 | 4,500,134,562 | 4,130,126,462 | 8,876,504,990 |
| 1954..... | 13,178 | 598,971 | 1,954,767,388 | 4,412,536,948 | 3,930,730,030 | 8,533,167,214 |
| 1955..... | 13,276 | 613,872 | 2,088,905,627 | 5,014,225,423 | 4,426,654,771 | 9,617,642,961 |

¹ See footnote 1, Table 1.

² In 1952 gross value of products was replaced by value of factory shipments; see text on p. 634.

³ See footnote 3, Table 1.

2.—Summary Statistics of Manufactures by Province, Significant Years 1917-55— concluded

| Province or Territory and Year | Estab- lish- ments | Employees | Earnings | Cost at Plant of Materials Used | Value Added by Manufacture ¹ | Gross Value of Products ² |
|--------------------------------------|--------------------------|-----------|-------------|---------------------------------------|---|--|
| | No. | No. | \$ | \$ | \$ | \$ |
| Manitoba— | | | | | | |
| 1917..... | 732 | 18,939 | 16,513,423 | 69,715,149 | 42,280,801 | 111,995,950 |
| 1917..... | 747 | 23,728 | 32,372,081 | 92,729,271 | 62,776,912 | 155,506,183 |
| 1920..... | 861 | 24,012 | 31,224,596 | 87,832,324 | 63,925,015 | 155,266,294 |
| 1929 ³ | 1,010 | 18,871 | 18,687,430 | 44,579,998 | 37,390,275 | 83,934,777 |
| 1933..... | 1,087 | 23,910 | 28,444,798 | 82,408,293 | 48,810,544 | 134,293,595 |
| 1939..... | 1,290 | 40,937 | 62,758,081 | 226,234,925 | 120,339,926 | 352,334,594 |
| 1944..... | 1,357 | 38,367 | 61,018,345 | 223,096,935 | 122,780,805 | 351,887,099 |
| 1946..... | 1,520 | 41,956 | 86,088,380 | 299,101,498 | 167,335,495 | 474,681,912 |
| 1949..... | 1,540 | 43,740 | 121,126,279 | 345,403,115 | 229,797,439 | 584,872,459 |
| 1953..... | 1,522 | 41,224 | 116,454,886 | 328,827,609 | 232,487,743 | 571,408,772 |
| 1954..... | 1,549 | 41,318 | 121,718,573 | 329,698,765 | 247,472,108 | 588,351,081 |
| 1955..... | | | | | | |
| Saskatchewan— | | | | | | |
| 1917..... | 560 | 6,230 | 5,403,332 | 22,040,674 | 13,894,179 | 35,934,853 |
| 1920..... | 554 | 6,709 | 9,571,175 | 34,894,105 | 22,610,861 | 57,504,966 |
| 1929 ³ | 594 | 7,025 | 9,105,597 | 51,003,566 | 23,002,952 | 75,368,605 |
| 1933..... | 673 | 4,782 | 4,848,763 | 19,124,030 | 11,478,634 | 31,559,387 |
| 1939..... | 737 | 6,475 | 7,346,127 | 38,782,135 | 20,283,273 | 60,650,589 |
| 1944..... | 1,054 | 12,361 | 17,703,103 | 131,215,017 | 40,833,333 | 175,349,234 |
| 1946..... | 955 | 11,957 | 17,956,317 | 126,595,761 | 38,459,630 | 168,356,619 |
| 1949..... | 962 | 10,841 | 22,273,942 | 164,349,341 | 47,356,949 | 215,742,708 |
| 1953..... | 1,062 | 11,604 | 32,395,518 | 180,303,942 | 79,941,332 | 266,613,086 |
| 1954..... | 1,010 | 11,526 | 33,509,833 | 169,326,001 | 104,560,398 | 280,733,784 |
| 1955..... | 960 | 11,490 | 34,825,511 | 174,078,701 | 113,598,622 | 295,162,037 |
| Alberta— | | | | | | |
| 1917..... | 636 | 9,461 | 8,662,417 | 42,632,212 | 23,883,673 | 66,515,885 |
| 1920..... | 666 | 10,955 | 15,210,628 | 56,139,646 | 29,812,891 | 85,952,537 |
| 1929 ³ | 736 | 12,216 | 14,585,734 | 62,500,175 | 36,824,969 | 100,966,196 |
| 1933..... | 874 | 9,753 | 9,573,468 | 29,425,975 | 18,876,929 | 49,395,514 |
| 1939..... | 961 | 12,712 | 14,977,700 | 53,151,149 | 32,618,153 | 87,474,080 |
| 1944..... | 1,165 | 22,186 | 33,227,729 | 172,082,537 | 77,415,753 | 252,949,894 |
| 1946..... | 1,315 | 22,649 | 34,939,088 | 169,425,176 | 83,735,011 | 257,031,867 |
| 1949..... | 1,685 | 26,425 | 55,115,554 | 251,364,059 | 114,681,296 | 371,995,120 |
| 1953..... | 2,072 | 33,082 | 82,605,153 | 346,221,162 | 199,660,428 | 555,814,827 |
| 1954..... | 2,052 | 32,765 | 96,909,889 | 346,524,989 | 219,327,509 | 575,277,702 |
| 1955..... | 2,126 | 34,846 | 106,548,815 | 366,022,853 | 263,308,701 | 641,148,235 |
| British Columbia— | | | | | | |
| 1917 ⁴ | 1,133 | 37,943 | 35,426,675 | 87,637,833 | 71,673,094 | 159,310,927 |
| 1920 ⁴ | 1,306 | 34,360 | 49,135,005 | 125,405,084 | 104,851,641 | 230,256,725 |
| 1929 ³ | 1,569 | 48,153 | 57,764,968 | 141,145,838 | 113,082,137 | 260,418,645 |
| 1933 ⁴ | 1,552 | 28,417 | 28,469,225 | 70,166,220 | 59,034,923 | 133,879,330 |
| 1939..... | 1,710 | 42,554 | 53,881,994 | 136,655,872 | 103,263,292 | 247,948,600 |
| 1944..... | 2,116 | 96,062 | 178,639,118 | 303,560,016 | 337,137,197 | 655,844,689 |
| 1946..... | 2,731 | 75,484 | 137,506,645 | 335,708,533 | 293,352,652 | 644,527,898 |
| 1949..... | 3,493 | 82,934 | 196,403,722 | 531,112,329 | 409,665,348 | 959,008,088 |
| 1953..... | 4,317 | 93,844 | 300,921,318 | 724,495,754 | 615,686,215 | 1,366,823,690 |
| 1954..... | 4,462 | 95,867 | 319,802,914 | 794,885,369 | 651,812,950 | 1,474,156,242 |
| 1955..... | 4,486 | 102,408 | 353,810,727 | 895,973,668 | 750,877,508 | 1,679,344,816 |
| Yukon and N.W.T.— | | | | | | |
| 1939..... | 5 | 55 | 97,766 | 138,500 | 92,054 | 242,968 |
| 1944..... | 12 | 67 | 118,972 | 189,718 | 280,803 | 489,256 |
| 1946..... | 13 | 92 | 200,560 | 172,845 | 408,727 | 646,295 |
| 1949..... | 18 | 148 | 359,068 | 643,807 | 604,896 | 1,377,453 |
| 1953..... | 30 | 177 | 569,995 | 1,349,970 | 1,012,008 | 2,516,683 |
| 1954..... | 31 | 191 | 630,316 | 1,492,898 | 1,855,633 | 3,536,300 |
| 1955..... | 26 | 170 | 604,507 | 2,843,895 | 1,732,511 | 4,751,000 |

¹ See footnote 1, Table 1.
see text on p. 634.

² In 1952 gross value of products was replaced by value of factory shipments.
³ See footnote 3, Table 1.

⁴ Includes Yukon Territory.

The figures in Table 3 trace the tendencies in manufacturing industries as clearly as possible from 1917 to 1955. In analysing statistics of production and materials used, price changes should be borne in mind, particularly the inflation of values in the years immediately following World War I. the drop in prices of commodities during the depressions

following 1921 and 1930, and the increases again in World War II and the postwar period. The figure that shows most clearly the trend of development is the use of power, but interesting also are the trends of value added by manufacture per employee, and of average earnings.

3.—Significant Statistics of Manufactures for Certain Years 1917-55

| Item | 1917 | 1920 | 1929 ¹ | 1933 |
|--|------------------|---------------|-----------------------------|-----------------------------|
| Establishments..... | No. 21,845 | 22,532 | 22,216 | 23,780 |
| Total employees..... | 606,523 | 598,893 | 666,531 | 468,658 |
| Averages per establishment..... | " 27.8 | 26.6 | 30.0 | 19.7 |
| Total earnings..... | \$ 497,801,844 | 717,493,876 | 777,291,217 | 436,247,824 |
| Averages per establishment..... | \$ 22,788 | 31,843 | 34,988 | 18,345 |
| Averages per employee..... | \$ 821 | 1,198 | 1,166 | 931 |
| Supervisory and office employees..... | No. 64,918 | 78,334 | 88,841 | 86,636 |
| Averages per establishment..... | " 3.0 | 3.5 | 4.0 | 3.6 |
| Total earnings..... | \$ 85,353,667 | 141,837,361 | 175,553,710 | 139,317,946 |
| Averages per employee..... | \$ 1,315 | 1,811 | 1,976 | 1,608 |
| Production workers..... | No. 541,605 | 520,559 | 577,690 | 382,022 |
| Averages per establishment..... | " 24.8 | 23.1 | 26.0 | 16.1 |
| Total earnings..... | \$ 412,448,177 | 575,656,515 | 601,737,507 | 296,929,878 |
| Averages per employee..... | \$ 762 | 1,106 | 1,042 | 777 |
| Cost of materials..... | \$ 1,539,678,811 | 2,085,271,649 | 2,029,670,813 | 967,788,928 |
| Averages per establishment..... | \$ 70,482 | 92,547 | 91,361 | 40,698 |
| Averages per employee..... | \$ 2,539 | 3,482 | 3,045 | 2,065 |
| Values added by manufacture ² | \$ 1,281,131,980 | 1,621,273,348 | 1,755,386,937 | 919,671,181 |
| Averages per establishment ² | \$ 58,646 | 71,954 | 79,015 | 38,674 |
| Averages per employee ² | \$ 2,112 | 2,707 | 2,634 | 1,962 |
| Gross value of products..... | \$ 2,820,810,791 | 3,706,544,997 | 3,883,446,116 | 1,954,075,785 |
| Averages per establishment..... | \$ 129,128 | 164,501 | 174,804 | 82,173 |
| Averages per employee..... | \$ 4,651 | 6,189 | 5,286 | 4,170 |
| Power employed..... | h.p. 1,658,475 | 2,068,875 | 3,855,648 | 4,135,008 |
| Averages per establishment..... | " 76 | 92 | 174 | 174 |
| Averages per production worker..... | " 3.06 | 3.97 | 6.67 | 10.82 |
| | 1939 | 1944 | 1954 | 1955 |
| Establishments..... | No. 24,805 | 28,483 | 38,028 | 38,182 |
| Total employees..... | 658,114 | 1,222,882 | 1,267,966 | 1,298,461 |
| Averages per establishment..... | " 26.5 | 42.9 | 33.3 | 34.0 |
| Total earnings..... | \$ 737,811,153 | 2,029,621,370 | 3,896,687,691 | 4,142,409,534 |
| Averages per establishment..... | \$ 29,744 | 71,257 | 102,469 | 108,491 |
| Averages per employee..... | \$ 1,121 | 1,660 | 3,073 | 3,190 |
| Supervisory and office employees..... | No. 124,772 | 192,558 | 278,936 | 287,469 |
| Averages per establishment..... | " 5.0 | 6.8 | 7.3 | 7.5 |
| Total earnings..... | \$ 217,839,334 | 418,065,594 | 1,075,101,215 | 1,147,142,086 |
| Averages per employee..... | \$ 1,746 | 2,171 | 3,854 | 3,990 |
| Production workers..... | No. 533,342 | 1,030,324 | 989,030 | 1,010,992 |
| Averages per establishment..... | " 21.5 | 36.2 | 26.0 | 26.5 |
| Total earnings..... | \$ 519,971,819 | 1,611,555,776 | 2,821,586,476 | 2,995,267,448 |
| Averages per employee..... | \$ 975 | 1,564 | 2,853 | 2,963 |
| Cost of materials..... | \$ 1,836,159,375 | 4,832,333,356 | 9,241,857,554 | 10,338,202,165 |
| Averages per establishment..... | \$ 74,024 | 169,657 | 243,028 | 270,761 |
| Averages per employee..... | \$ 2,790 | 3,952 | 7,289 | 7,962 |
| Values added by manufacture ² | \$ 1,531,051,901 | 4,015,776,010 | 7,902,124,137 | 8,753,450,496 |
| Averages per establishment ² | \$ 61,724 | 140,989 | 207,798 | 229,256 |
| Averages per employee ² | \$ 2,326 | 3,284 | 6,232 | 6,741 |
| Gross value of products..... | \$ 3,474,783,528 | 9,073,692,519 | 17,554,527,504 ³ | 19,513,933,811 ³ |
| Averages per establishment..... | \$ 140,084 | 318,565 | 461,621 | 511,077 |
| Averages per employee..... | \$ 5,280 | 7,420 | 13,845 | 15,029 |
| Power employed..... | h.p. 5,045,287 | 6,468,439 | 10,397,703 ⁴ | 4 |
| Averages per establishment..... | " 203 | 227 | 273 | 4 |
| Averages per production worker..... | " 9.46 | 6.28 | 9.87 | 4 |

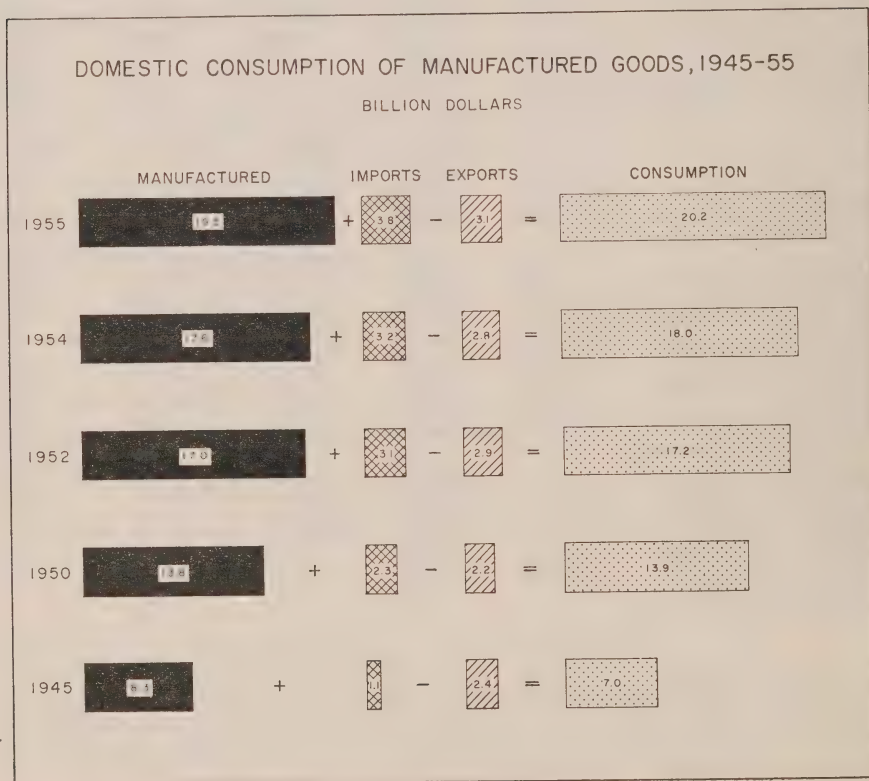
¹ A change in the method of computing the number of production workers in the years 1925 to 1930 inclusive increased the number somewhat over that which the method otherwise used would have given. There was therefore a proportionate reduction in the averages for 1925-30 per employee as compared with what these averages would have been under the other method. In 1931 however the method in force prior to 1925 was re-adopted. The figures for 1931 and later years are therefore comparable with those for 1924 and earlier years. ² Net value of products; see footnote 1, Table 1, p. 634. ³ In 1952 gross value of products was replaced by value of factory shipments; see text on p. 634. ⁴ Collected only every five years; 1953 figure latest available.

Subsection 1.—Consumption of Manufactured Products

The value of all manufactured commodities made available for consumption in 1955 was \$20,152,020,318, a figure obtained by adding to the value of manufactured products the value of the imports of manufactured and partly manufactured goods, and deducting the value of the exports. More accurate statistics could be presented were it possible to exclude from the gross value of manufactured products the duplications involved when the products of one manufacturing establishment become the material worked upon in another. Iron, vegetable, wood and paper, non-ferrous metals and non-metallic minerals were, in that order, the leading groups in the value of finished products made available for consumption in 1955.

Animal, wood and paper, and non-ferrous metal products were manufactured in Canada in greater quantities than required for home consumption, providing export balances in these groups.

On balance, Canada in the past imported large quantities of iron and steel, textiles, chemicals and non-metallic mineral products despite large home production. The expansion of the iron and steel, chemical and non-metallic mineral products industries will enable Canada to meet more of her requirements for home consumption and to export greater quantities in the future.



4.—Consumption of Manufactured Products, Significant Years 1929-53 and by Industrial Group 1954 and 1955

| Year and Industrial Group | Gross Value of Products Manufactured ² | Manufactured and Partly Manufactured Goods ¹ | | Value of Manufactured Products Available for Consumption |
|------------------------------------|---|---|---------------------------|--|
| | | Value of Net Imports | Value of Domestic Exports | |
| | \$ | \$ | \$ | \$ |
| 1929..... | 3,883,446,116 | 939,130,201 | 686,876,071 | 4,135,700,246 |
| 1933..... | 1,954,075,785 | 298,068,344 | 365,232,113 | 1,886,912,016 |
| 1939..... | 3,474,783,528 | 542,364,930 | 646,853,938 | 3,370,294,520 |
| 1944..... | 9,073,692,519 | 1,302,413,996 | 2,668,575,781 | 7,707,530,734 |
| 1946..... | 8,035,692,471 | 1,390,123,100 | 1,701,677,026 | 7,724,138,545 |
| 1949..... | 12,479,593,300 | 2,043,583,929 | 2,017,055,615 | 12,506,121,614 |
| 1951..... | 16,392,187,132 | 3,034,709,829 | 2,749,091,256 | 16,677,805,705 |
| 1952..... | 16,982,687,035 | 3,125,381,333 | 2,892,543,945 | 17,215,524,423 |
| 1953..... | 17,785,416,854 | 3,519,418,503 | 2,781,269,785 | 18,523,655,572 |
| 1954³ | | | | |
| Vegetable products..... | 2,563,927,081 | 258,852,898 | 203,930,909 | 2,618,849,070 |
| Animal products..... | 1,813,185,823 | 46,371,900 | 110,792,891 | 1,748,764,832 |
| Textiles and textile products..... | 1,378,303,384 | 254,592,092 | 19,588,401 | 1,613,307,075 |
| Wood and paper products..... | 3,430,311,344 | 158,066,586 | 1,317,199,057 | 2,271,178,873 |
| Iron and its products..... | 3,651,360,402 | 1,276,155,153 | 260,972,997 | 4,666,542,558 |
| Non-ferrous metal products..... | 2,127,716,961 | 325,752,287 | 558,573,894 | 1,894,895,354 |
| Non-metallic mineral products..... | 1,456,119,348 | 248,373,012 | 94,613,695 | 1,609,878,665 |
| Chemicals and allied products..... | 882,604,171 | 218,482,614 | 161,293,282 | 939,793,593 |
| Miscellaneous industries..... | 250,998,990 | 452,889,139 | 84,608,834 | 619,279,295 |
| Totals, 1954..... | 17,554,527,504 | 3,239,535,681 | 2,811,573,960 | 17,982,489,225 |
| 1955³ | | | | |
| Vegetable products..... | 2,699,898,995 | 282,174,622 | 200,426,389 | 2,781,647,228 |
| Animal products..... | 1,824,360,045 | 54,664,201 | 106,050,545 | 1,772,973,701 |
| Textiles and textile products..... | 1,507,216,437 | 290,624,022 | 21,612,958 | 1,776,227,501 |
| Wood and paper products..... | 3,767,432,484 | 184,806,737 | 1,455,575,038 | 2,496,664,183 |
| Iron and its products..... | 4,174,966,314 | 1,545,144,355 | 298,968,319 | 5,421,142,360 |
| Non-ferrous metal products..... | 2,589,595,867 | 357,935,238 | 666,657,736 | 2,280,873,369 |
| Non-metallic mineral products..... | 1,674,943,300 | 288,964,669 | 113,745,079 | 1,850,162,890 |
| Chemicals and allied products..... | 993,756,785 | 258,423,572 | 210,040,071 | 1,042,140,286 |
| Miscellaneous industries..... | 281,763,584 | 518,475,528 | 70,050,302 | 730,188,810 |
| Totals, 1955..... | 19,513,933,811 | 3,781,212,944 | 3,143,126,437 | 20,152,020,318 |

¹ Figures for the years 1929 and 1933 are for the fiscal years ended Mar. 31 of the following years; for 1939-55 they are for the calendar year. Net imports are total imports less foreign products re-exported. ² In 1952 gross value of products was replaced by value of factory shipments; see text on p. 634. ³ Consumption figures for the major standard industrial classification groups (see p. 646) cannot be calculated because statistics of imports and exports are compiled on the component material classification basis.

Subsection 2.—Value and Volume of Manufactured Production

Value of Manufactured Production.—In the interpretation of manufacturing values over a number of years variations in the level of prices must be borne in mind. In recent years owing to large changes in prices, unadjusted value series used in isolation have become increasingly inadequate as indicators of economic trends. Consequently interest has shifted to measures of volume. The range of prices since 1929, on the base period 1935-39 = 100, is as follows:—

| Year | General Wholesale Price Index | Price Index of Fully or Chiefly Manufactured Products |
|-----------|-------------------------------|---|
| 1929..... | 124.6 | 123.7 |
| 1933..... | 87.4 | 93.3 |
| 1939..... | 99.2 | 101.9 |
| 1944..... | 130.6 | 129.1 |
| 1946..... | 138.9 | 138.0 |
| 1949..... | 198.3 | 199.2 |
| 1952..... | 226.0 | 230.7 |
| 1953..... | 220.7 | 228.8 |
| 1954..... | 217.0 | 224.2 |
| 1955..... | 218.9 | 224.5 |

Volume of Manufactured Production.—Real income is ultimately measured in goods and services so that the growth of the volume of manufacturing production, as distinguished from its value, becomes a matter of great significance. The important thing to know is whether consumers are getting more goods and services and not whether they are expending more dollars and cents. The field of industrial production, because of its dominating position in the national economy, has attracted increasing attention and this in turn has resulted in the need for more accurate measurements of physical output.

During the past few years the Dominion Bureau of Statistics has been engaged in the reconstruction of the index of industrial production* which was first published in 1926 and later subjected to several major revisions. The latest reconstruction was made possible by the availability of a great deal of basic data. Annual statistics valuable for this project have been collected by the Bureau from the end of World War I to the present and the scope of the monthly information has been greatly expanded. Applying methods developed through the experience of the past quarter-century, it has been possible to compute an index with a fair measure of accuracy from 1935 to the present.

The manufacturing sector is divided, at the major group level, into durable manufactures and non-durable manufactures, for the reason that the movement of durable goods normally varies from that of non-durables. There tends to be greater fluctuation in durables from prosperity to depression, the demand for non-durables being more constant.

5.—Index of the Total Volume of Manufactured Production classified on the Basis of Durable and Non-durable Goods 1946-55

(1935-39=100)

NOTE.—Figures for the years 1935-45 are given in the 1955 Year Book, p. 641.

| Year | Non-durable Manufactures | Durable Manufactures | All Manufactures | Year | Non-durable Manufactures | Durable Manufactures | All Manufactures |
|-----------|--------------------------|----------------------|------------------|-----------|--------------------------|----------------------|------------------|
| 1946..... | 180.2 | 205.1 | 189.9 | 1951..... | 214.0 | 285.9 | 242.1 |
| 1947..... | 191.2 | 233.5 | 207.7 | 1952..... | 215.2 | 294.9 | 246.3 |
| 1948..... | 197.1 | 244.4 | 215.5 | 1953..... | 224.1 | 323.9 | 263.0 |
| 1949..... | 198.2 | 246.3 | 217.0 | 1954..... | 221.7 | 297.7 | 251.4 |
| 1950..... | 208.3 | 259.1 | 228.1 | 1955..... | 235.2 | 324.8 | 270.1 |

The period 1946-55 was characterized by unprecedented industrial expansion. The end of hostilities in 1945 and the subsequent reconversion to peacetime production were attended by declines in output but the upward trend was resumed in 1947. The rate of advance slackened moderately in 1948 and 1949 but regained most of its 1947 impetus in 1950 when the outbreak of hostilities in Korea resulted in heavy anticipatory buying on the part of consumers and in growing expenditures for national defence. A remarkable feature is that in 1952 the index of the volume of manufacturing production stood at 246.3 having surpassed the record wartime level of 242.3 established in 1944. The index continued to advance in 1953, dropped somewhat in 1954 but reached a new high in 1955.

Durable Manufactures.—The volume index of durable manufactures reached a peak of 340.1 in 1944 but declined sharply to 205.1 in 1946. Since then the advance has been steady, except for 1954, and the index stood at 324.8 in 1955. Over the 1946-55 period, the greatest gains were shown by electrical apparatus and supplies and non-metallic mineral products.

All groups in the durable goods sector with the exception of transportation equipment recovered in 1955 from the downward adjustment experienced in 1954. Non-metallic mineral products were up 15.1 p.c., iron and steel products 14.1 p.c., electrical apparatus and supplies 12.0 p.c., wood products 10.8 p.c., and non-ferrous metal products 9.8 p.c.

* For a description of the methods used in constructing the index and a description of its scope, see DBS Reference Paper No. 34, *Revised Index of Industrial Production, 1935-1951*.

The transportation equipment group was slightly lower than in 1954. Although the volume of output of the automobile industry was 29 p.c. higher, the lower levels at which the shipbuilding, aircraft and railway rolling-stock industries operated more than offset that increase, leaving a decline of 1.2 p.c. for the group as a whole as compared with 1954 and a 20.0-p.c. decline from the high level of 1953. The iron and steel group, despite the recovery made in 1955, was still about 1.8 p.c. below the record level of 1952.

6.—Indexes of the Volume of Manufactured Production of the Groups Comprised within the Durable Manufactures Classification 1946-55

(1935-39=100)

NOTE.—Indexes for the years 1935-45 are given in the 1954 Year Book, p. 630.

| Year | Wood Products | Iron and Steel Products | Transportation Equipment | Non-ferrous Metal Products | Electrical Apparatus and Supplies | Non-metallic Mineral Products |
|-----------|---------------|-------------------------|--------------------------|----------------------------|-----------------------------------|-------------------------------|
| 1946..... | 175.0 | 222.6 | 221.5 | 160.1 | 247.3 | 221.4 |
| 1947..... | 195.6 | 249.9 | 239.5 | 182.8 | 316.8 | 269.8 |
| 1948..... | 200.7 | 270.4 | 232.6 | 201.6 | 328.5 | 283.7 |
| 1949..... | 202.3 | 264.5 | 243.9 | 200.5 | 333.8 | 284.4 |
| 1950..... | 215.1 | 263.2 | 262.2 | 212.8 | 367.6 | 314.6 |
| 1951..... | 220.6 | 292.2 | 315.0 | 234.7 | 392.3 | 342.1 |
| 1952..... | 214.1 | 292.7 | 373.1 | 232.2 | 393.1 | 346.1 |
| 1953..... | 235.3 | 290.8 | 436.3 | 243.3 | 486.7 | 399.0 |
| 1954..... | 230.3 | 251.8 | 354.9 | 246.7 | 477.8 | 409.5 |
| 1955..... | 255.1 | 287.3 | 350.7 | 270.9 | 535.2 | 471.5 |

Non-durable Manufactures.—The trend of output in the non-durable sector of manufacturing from 1946 to 1955 was visibly smoother than in the durable sector. Except for 1954 there has been no interruption in the upward movement of production during this period. Unlike durable goods, non-durable commodities are mostly consumer goods and are less influenced by sudden changes in the international situation or the capital investment programs of producers and governments. By 1955 the non-durables index of output had reached 235.2, the highest on record. All groups reported increased activity in 1955 as compared with 1954, the greatest increases being reported by rubber goods and textiles.

7.—Indexes of the Volume of Manufactured Production of the Groups Comprised within the Non-durable Manufactures Classification 1946-55

(1935-39=100)

NOTE.—Indexes for the years 1935-45 are given in the 1954 Year Book, p. 629.

| Year | Foods | Beverages | Tobacco and Tobacco Products | Rubber Products | Leather Products | Textile Products (except Clothing) |
|-----------|-------|-----------|------------------------------|-----------------|------------------|------------------------------------|
| 1946..... | 177.2 | 234.4 | 204.4 | 158.0 | 167.9 | 161.7 |
| 1947..... | 181.5 | 249.4 | 211.9 | 230.7 | 148.7 | 172.9 |
| 1948..... | 183.0 | 270.9 | 215.8 | 227.6 | 129.6 | 180.2 |
| 1949..... | 180.3 | 285.7 | 224.4 | 208.5 | 133.5 | 186.0 |
| 1950..... | 183.6 | 282.9 | 227.5 | 251.9 | 126.8 | 212.4 |
| 1951..... | 188.7 | 297.7 | 212.2 | 264.3 | 117.0 | 208.6 |
| 1952..... | 195.5 | 323.6 | 242.3 | 248.4 | 128.0 | 184.1 |
| 1953..... | 184.0 | 336.6 | 269.6 | 264.2 | 136.7 | 187.6 |
| 1954..... | 198.1 | 328.6 | 279.3 | 252.6 | 128.6 | 161.0 |
| 1955..... | 203.0 | 358.3 | 303.3 | 296.3 | 136.7 | 185.3 |

7.—Indexes of the Volume of Manufactured Production of the Groups Comprised within the Non-durable Manufactures Classification 1946-55—concluded

| Year | Clothing (Textile and Fur) | Paper Products | Printing, Publishing and Allied Trades | Products of Petroleum and Coal | Chemicals and Allied Products |
|-----------|----------------------------------|-------------------|--|--------------------------------------|-------------------------------------|
| 1946..... | 152.9 | 188.9 | 143.8 | 167.4 | 237.7 |
| 1947..... | 147.7 | 207.4 | 163.3 | 181.2 | 245.5 |
| 1948..... | 156.0 | 217.7 | 177.2 | 199.0 | 243.2 |
| 1949..... | 159.4 | 213.7 | 183.8 | 218.0 | 239.5 |
| 1950..... | 155.7 | 230.4 | 195.3 | 243.5 | 253.7 |
| 1951..... | 149.7 | 247.8 | 194.7 | 274.9 | 267.8 |
| 1952..... | 154.4 | 235.5 | 192.4 | 295.1 | 272.4 |
| 1953..... | 167.3 | 244.7 | 204.8 | 324.3 | 284.4 |
| 1954..... | 145.4 | 254.4 | 214.8 | 336.9 | 285.0 |
| 1955..... | 149.0 | 267.7 | 219.5 | 385.4 | 291.8 |

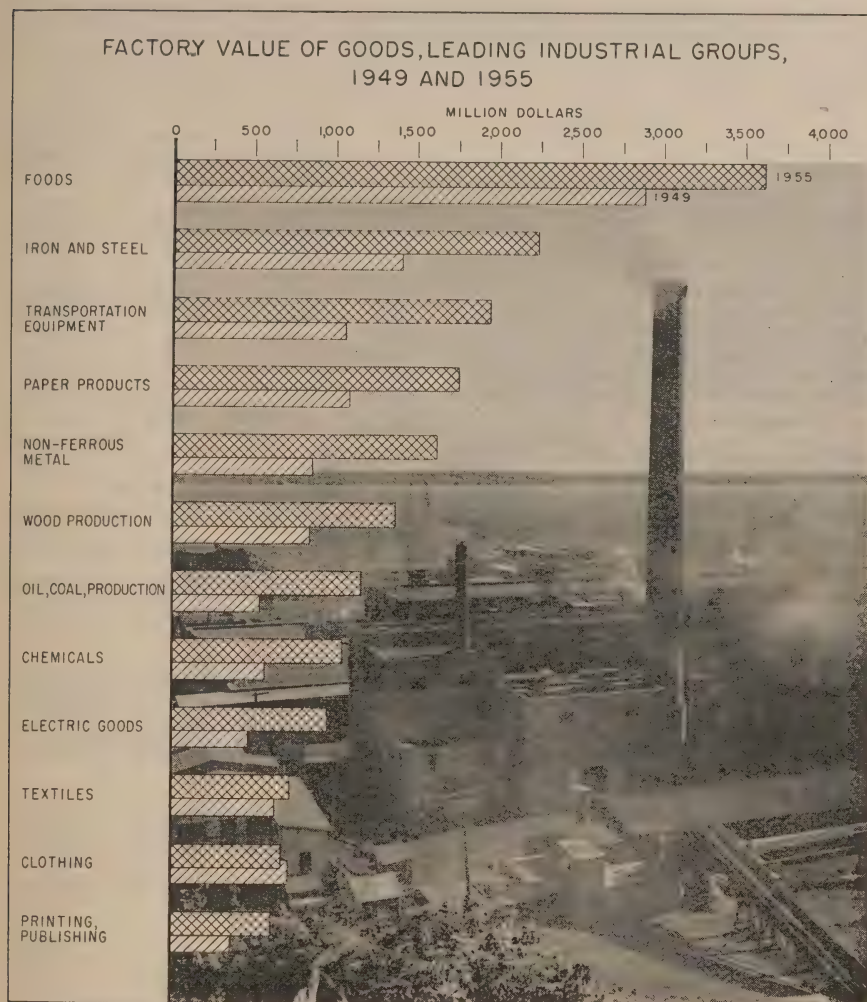
Section 2.—Manufactured Production Variouslly Classified

Subsection 1.—Manufactures classified by Industrial Groups and Individual Industries

Current Changes in Manufacturing Production.—The manufacturing industries of Canada during 1955 made a rapid recovery from the downward adjustment experienced in 1954. The selling value of factory shipments at \$19,513,933,811 was the highest on record and exceeded by 9.7 p.c. the previous high mark attained in 1953. In employment, however, the record was not so impressive. Although there was an increase of 2.4 p.c. in the number of employed in 1955 as compared with the previous year, the number still fell short, by about 29,000, of the record number of 1,327,451 employed in 1953. Salaries and wages paid at \$4,142,409,534 and value added by manufacture at \$8,753,450,496 were the highest on record, exceeding the previous high of 1953 by substantial margins.

The improvement in manufacturing operations that occurred during 1955 was the result of three main factors. First was the accelerated spending on capital goods, such as construction and machinery and equipment of all kinds, which rose from \$5,620,000,000 in 1954 to \$6,230,000,000 in 1955, an increase of 11.0 p.c. This stimulated the durable goods industries to a marked degree, and was reflected in the increased output of pig iron which rose from 2,211,029 tons in 1954 to 3,215,367 tons in 1955, steel ingots and castings from 3,195,030 tons to 4,534,672 tons, aluminum from 557,897 tons to 612,543 tons, nickel from 166,299 tons to 174,928 tons, cement from 22,437,477 bbl. to 25,168,464 bbl., and motor vehicles from 352,109 units to 452,114 units. The second factor was the improvement in the export demand for many Canadian manufactured commodities. Exports of newsprint, wood pulp, planks and boards, shingles, veneer and plywood, aluminum, nickel, copper, zinc, automobile parts and fertilizers were all substantially higher in 1955 as compared with 1954. Exports of whisky, farm implements and artificial crude abrasives were at about the same level while exports of wheat flour and aircraft were considerably lower. The third factor was the impact on the consumer goods industries of the increase of about 400,000 in population as well as by the rise in labour income.

Demands stemming from population growth and a rising standard of living have been noticeable at all levels. In food processing, a steady up-grading in the quality of foods sold on the domestic market has been even more important than population growth. The two together have almost doubled the dollar sales of processed foods in this country since 1945. And at the intermediate level other important changes have taken place. Many of Canada's new chemical plants, for example, have been built with the domestic consumer market in mind. Frequently using petroleum or natural gas as a source of raw material, they have gone a long way towards making Canada independent of imports in such categories as vanillin, nylon and rayon intermediates, and plastics for packaging and other uses.



8.—Percentage Variations in Employment, Earnings and Gross Value of Products in the Main Industrial Groups, 1955 Compared with 1954

| Industrial Group | 1955 Compared with 1954 | | |
|-----------------------------------|-------------------------|----------|------------------------------------|
| | Number of Employees | Earnings | Selling Value of Factory Shipments |
| | p.c. | p.c. | p.c. |
| Foods and beverages..... | + 1.2 | + 4.6 | + 1.5 |
| Tobacco and tobacco products..... | + 0.6 | + 5.7 | +11.4 |
| Rubber products..... | + 4.9 | + 9.3 | +22.0 |
| Leather products..... | + 0.6 | + 2.7 | + 5.6 |
| Textiles..... | + 7.1 | +10.3 | +14.6 |
| Knitting mills..... | + 0.2 | - 0.8 | + 2.9 |

8.—Percentage Variations in Employment, Earnings and Gross Value of Products in the Main Industrial Groups, 1955 Compared with 1954—concluded

| Industrial Group | 1955 Compared with 1954 | | |
|---|-------------------------|--------------|------------------------------------|
| | Number of Employees | Earnings | Selling Value of Factory Shipments |
| | p.c. | p.c. | p.c. |
| Clothing..... | 1 | + 2.6 | + 5.2 |
| Wood products..... | + 3.7 | + 9.7 | +14.0 |
| Paper products..... | + 2.7 | + 6.3 | + 7.6 |
| Printing, publishing and allied trades..... | + 1.4 | + 6.5 | + 7.4 |
| Iron and steel products..... | + 4.6 | +10.3 | +14.8 |
| Transportation equipment..... | - 1.2 | + 2.4 | +13.8 |
| Non-ferrous metal products..... | + 5.6 | +10.4 | +28.7 |
| Electrical apparatus and supplies..... | + 1.6 | + 2.1 | +11.4 |
| Non-metallic mineral products..... | +10.6 | +14.1 | +18.1 |
| Products of petroleum and coal..... | - 0.4 | + 4.0 | +13.7 |
| Chemicals and allied products..... | + 0.5 | + 4.5 | +11.2 |
| Miscellaneous industries..... | + 1.4 | + 4.1 | +12.2 |
| Averages, All Groups..... | + 2.4 | + 6.4 | +11.2 |

¹ Less than 0.1 p.c. variation.

9.—Summary Statistics of Manufactures by Industrial Group 1945-55

NOTE.—Figures for 1946, 1948 and 1950 will be found in the 1952-53 Year Book, pp. 611-613; those for 1952 are given at pp. 645-647 of the 1955 edition and for 1953 at pp. 636-638 of the 1956 edition.

| Industrial Group and Year | Establishments | Employees | Earnings | Cost at Plant of Materials Used | Value Added by Manufacture | Gross Value of Products ¹ |
|--|----------------|-----------|-------------|---------------------------------|----------------------------|--------------------------------------|
| | No. | No. | \$ | \$ | \$ | \$ |
| Foods and Beverages— | | | | | | |
| 1945..... | 8,872 | 156,396 | 224,908,882 | 1,336,820,028 | 558,247,045 | 1,921,774,601 |
| 1947..... | 8,869 | 167,865 | 276,245,015 | 1,656,529,086 | 695,092,932 | 2,383,975,675 |
| 1949..... | 8,558 | 170,024 | 332,536,319 | 2,009,246,062 | 834,017,547 | 2,882,581,753 |
| 1951..... | 8,388 | 172,493 | 392,859,435 | 2,419,206,798 | 985,240,884 | 3,450,030,515 |
| 1954..... | 8,090 | 177,883 | 477,058,728 | 2,334,166,626 | 1,181,648,171 | 3,562,546,744 |
| 1955..... | 8,134 | 180,085 | 498,786,577 | 2,319,782,949 | 1,257,652,677 | 3,614,315,616 |
| Tobacco and Tobacco Products— | | | | | | |
| 1945..... | 86 | 12,164 | 15,738,041 | 79,176,519 | 42,985,992 | 122,543,932 |
| 1947..... | 91 | 10,880 | 16,234,772 | 97,121,002 | 49,221,094 | 146,793,011 |
| 1949..... | 72 | 10,686 | 21,896,378 | 113,357,196 | 58,529,226 | 172,420,213 |
| 1951..... | 62 | 9,826 | 24,438,218 | 119,590,053 | 59,033,325 | 179,177,093 |
| 1954..... | 53 | 9,469 | 27,868,939 | 144,960,769 | 79,439,243 | 225,340,976 |
| 1955..... | 56 | 9,529 | 29,446,891 | 163,027,885 | 88,652,932 | 250,933,785 |
| Rubber Products— | | | | | | |
| 1945..... | 55 | 23,490 | 39,111,477 | 78,500,892 | 98,836,225 | 181,413,226 |
| 1947..... | 60 | 23,475 | 46,613,893 | 82,934,625 | 110,673,007 | 196,307,734 |
| 1949..... | 62 | 20,729 | 48,172,207 | 73,895,718 | 101,705,513 | 178,503,559 |
| 1951..... | 63 | 23,054 | 64,357,696 | 146,951,650 | 161,184,980 | 311,678,489 |
| 1954..... | 73 | 20,894 | 67,476,405 | 106,501,858 | 149,073,979 | 264,184,787 |
| 1955..... | 82 | 21,913 | 73,774,964 | 137,074,770 | 187,029,017 | 322,412,379 |
| Leather Products— | | | | | | |
| 1945..... | 706 | 34,123 | 43,268,635 | 95,006,015 | 71,297,713 | 167,888,463 |
| 1947..... | 792 | 35,724 | 52,628,612 | 123,894,474 | 86,646,061 | 212,430,165 |
| 1949..... | 747 | 34,900 | 59,699,886 | 117,869,462 | 91,157,684 | 210,804,174 |
| 1951..... | 711 | 31,578 | 59,668,764 | 135,114,110 | 84,885,048 | 221,882,794 |
| 1954..... | 673 | 30,748 | 67,161,757 | 101,250,853 | 102,339,751 | 206,512,812 |
| 1955..... | 646 | 30,575 | 68,970,276 | 108,961,619 | 107,215,340 | 218,043,090 |
| Textile Products (except Clothing)— | | | | | | |
| 1945..... | 664 | 66,011 | 88,372,939 | 217,289,281 | 165,689,522 | 391,182,025 |
| 1947..... | 747 | 73,979 | 116,228,736 | 289,986,732 | 215,170,493 | 514,844,838 |
| 1949..... | 847 | 77,773 | 156,166,554 | 339,644,950 | 285,641,367 | 636,824,130 |
| 1951..... | 892 | 81,710 | 185,030,489 | 495,304,102 | 337,936,447 | 846,477,303 |
| 1954..... | 975 | 64,581 | 170,196,140 | 350,113,694 | 275,492,879 | 640,870,047 |
| 1955..... | 977 | 69,144 | 187,805,044 | 408,890,576 | 314,533,385 | 734,515,445 |

For footnote, see end of table p. 646.

9.—Summary Statistics of Manufactures by Industrial Group 1945-55—continued

| Industrial Group and Year | Estab- lish- ments | Em- ployees | Earnings | Cost at Plant of Materials Used | Value Added by Manufacture | Gross Value of Products ¹ |
|--|--------------------------|----------------|-------------|---------------------------------------|----------------------------------|--|
| | No. | No. | \$ | \$ | \$ | \$ |
| Clothing (Textile and Fur)— | | | | | | |
| 1945..... | 2,676 | 99,959 | 131,478,496 | 251,899,847 | 222,307,384 | 476,754,319 |
| 1947..... | 3,121 | 110,329 | 166,951,727 | 311,018,817 | 300,527,093 | 614,594,703 |
| 1949..... | 3,058 | 117,752 | 206,512,782 | 371,128,833 | 352,741,236 | 727,498,836 |
| 1951..... | 3,083 | 115,733 | 222,364,947 | 405,347,118 | 370,672,177 | 780,012,025 |
| 1954..... | 3,030 | 111,315 | 239,072,710 | 410,078,242 | 383,538,744 | 801,533,118 |
| 1955..... | 2,944 | 111,344 | 243,644,687 | 435,588,452 | 401,110,652 | 839,548,665 |
| Wood Products— | | | | | | |
| 1945..... | 7,656 | 93,209 | 119,833,932 | 240,482,275 | 208,979,657 | 454,447,165 |
| 1947..... | 9,744 | 120,434 | 186,467,946 | 398,854,196 | 365,050,223 | 771,403,332 |
| 1949..... | 11,191 | 121,632 | 224,902,644 | 436,637,453 | 393,928,758 | 840,355,634 |
| 1951..... | 11,975 | 131,278 | 283,062,074 | 610,807,577 | 529,300,377 | 1,153,376,772 |
| 1954..... | 12,165 | 128,931 | 323,122,214 | 623,756,753 | 566,186,899 | 1,205,959,905 |
| 1955..... | 11,804 | 133,673 | 354,439,897 | 723,815,493 | 631,857,981 | 1,375,343,554 |
| Paper Products— | | | | | | |
| 1945..... | 475 | 60,819 | 109,627,174 | 255,265,326 | 241,121,150 | 536,859,861 |
| 1947..... | 502 | 73,445 | 168,632,394 | 410,456,570 | 443,374,435 | 911,238,813 |
| 1949..... | 524 | 76,471 | 208,348,621 | 494,300,501 | 532,288,636 | 1,093,060,326 |
| 1951..... | 547 | 82,889 | 276,521,006 | 683,488,653 | 827,924,962 | 1,589,842,162 |
| 1954..... | 569 | 87,370 | 331,556,026 | 742,032,309 | 802,280,157 | 1,630,162,601 |
| 1955..... | 580 | 89,750 | 349,777,049 | 793,008,069 | 867,261,587 | 1,754,098,505 |
| Printing, Publishing and Allied Trades— | | | | | | |
| 1945..... | 2,312 | 43,565 | 74,257,775 | 52,655,848 | 132,385,988 | 186,945,134 |
| 1947..... | 2,458 | 52,096 | 101,611,652 | 82,585,466 | 178,667,051 | 263,632,152 |
| 1949..... | 3,866 | 61,834 | 141,489,984 | 124,684,351 | 250,162,704 | 377,908,182 |
| 1951..... | 4,019 | 64,694 | 170,828,730 | 152,753,412 | 295,642,569 | 452,142,515 |
| 1954..... | 4,227 | 68,614 | 220,275,989 | 188,725,630 | 384,791,305 | 577,355,291 |
| 1955..... | 4,494 | 69,602 | 234,579,858 | 199,161,743 | 415,668,242 | 619,828,786 |
| Iron and Steel Products— | | | | | | |
| 1945..... | 1,903 | 169,278 | 313,966,173 | 395,624,098 | 527,473,688 | 952,482,150 |
| 1947..... | 2,200 | 162,399 | 334,044,246 | 451,289,335 | 580,342,444 | 1,064,654,410 |
| 1949..... | 2,347 | 163,622 | 413,227,553 | 619,499,256 | 760,934,249 | 1,419,145,725 |
| 1951..... | 2,435 | 183,323 | 547,314,615 | 860,565,510 | 991,334,800 | 1,904,650,130 |
| 1954..... | 2,801 | 173,698 | 605,526,529 | 829,237,679 | 1,085,231,674 | 1,954,230,964 ² |
| 1955..... | 2,895 | 181,700 | 667,657,079 | 1,005,246,993 | 1,199,245,953 | 2,242,717,918 ² |
| Transportation Equipment— | | | | | | |
| 1945..... | 504 | 154,844 | 326,748,794 | 498,241,686 | 523,910,119 | 1,034,666,913 |
| 1947..... | 562 | 104,348 | 230,898,680 | 426,573,091 | 366,151,761 | 803,611,372 |
| 1949..... | 596 | 104,750 | 270,852,111 | 584,064,330 | 466,529,164 | 1,063,211,331 |
| 1951..... | 599 | 122,517 | 368,106,433 | 870,178,794 | 657,424,400 | 1,541,589,828 |
| 1954..... | 602 | 133,432 | 479,079,750 | 986,721,281 | 701,600,725 | 1,713,962,985 |
| 1955..... | 594 | 131,789 | 490,434,996 | 1,117,768,836 | 809,748,007 | 1,950,410,035 |
| Non-ferrous Metal Products— | | | | | | |
| 1945..... | 436 | 44,221 | 81,889,942 | 337,872,041 | 180,653,076 | 548,853,026 |
| 1947..... | 503 | 43,344 | 91,046,568 | 434,517,197 | 201,162,856 | 668,074,514 |
| 1949..... | 532 | 44,698 | 114,591,106 | 537,218,214 | 289,125,045 | 867,043,028 |
| 1951..... | 536 | 50,114 | 150,733,704 | 797,412,763 | 406,616,836 | 1,253,599,168 |
| 1954..... | 573 | 50,494 | 182,191,321 | 717,966,073 | 486,933,852 | 1,263,774,817 |
| 1955..... | 581 | 53,311 | 201,109,879 | 974,792,188 | 590,744,048 | 1,626,980,855 |
| Electrical Apparatus and Supplies— | | | | | | |
| 1945..... | 247 | 44,129 | 76,468,795 | 92,041,030 | 135,919,899 | 230,531,874 |
| 1947..... | 296 | 52,736 | 103,891,016 | 162,131,266 | 200,859,040 | 366,506,203 |
| 1949..... | 365 | 55,916 | 137,278,521 | 212,460,413 | 269,341,983 | 486,286,355 |
| 1951..... | 373 | 67,626 | 194,749,038 | 316,561,307 | 353,602,872 | 676,008,959 |
| 1954..... | 457 | 75,075 | 258,509,601 | 396,583,427 | 462,960,141 | 863,942,144 |
| 1955..... | 468 | 76,244 | 264,031,474 | 477,655,753 | 469,918,651 | 962,615,012 |

For footnotes, see end of table, p. 646.

9.—Summary Statistics of Manufactures by Industrial Group 1945-55—concluded

| Industrial Group and Year | Estab- lish- ments | Em- ployees | Earnings | Cost at Plant of Materials Used | Value Added by Manufacture | Gross Value of Products ¹ |
|--|--------------------------|----------------|-------------|---------------------------------------|----------------------------------|--|
| | No. | No. | \$ | \$ | \$ | \$ |
| Non-metallic Mineral Products— | | | | | | |
| 1945..... | 700 | 20,269 | 32,959,877 | 41,488,955 | 76,318,456 | 130,704,796 |
| 1947..... | 863 | 26,443 | 50,456,143 | 66,266,546 | 115,277,990 | 201,786,910 |
| 1949..... | 1,020 | 28,139 | 64,594,354 | 78,401,065 | 143,872,615 | 246,457,799 |
| 1951..... | 1,042 | 31,522 | 86,078,972 | 109,011,701 | 195,348,829 | 334,875,398 |
| 1954..... | 1,160 | 35,229 | 114,849,079 | 145,120,516 | 256,951,753 | 435,208,000 |
| 1955..... | 1,171 | 38,949 | 131,006,731 | 174,489,301 | 301,656,877 | 514,118,801 |
| Products of Petroleum and Coal— | | | | | | |
| 1945..... | 80 | 11,532 | 22,904,418 | 188,899,911 | 65,637,131 | 270,166,984 |
| 1947..... | 80 | 12,769 | 28,689,932 | 257,420,851 | 84,073,746 | 361,333,008 |
| 1949..... | 77 | 14,552 | 39,783,500 | 391,036,128 | 117,819,090 | 533,730,719 |
| 1951..... | 82 | 15,598 | 51,947,890 | 497,982,695 | 179,872,590 | 709,550,035 |
| 1954..... | 104 | 17,559 | 69,681,725 | 625,411,385 | 358,372,309 | 1,020,911,348 |
| 1955..... | 106 | 17,486 | 72,436,559 | 704,384,995 | 417,349,989 | 1,160,824,499 |
| Chemicals and Allied Products— | | | | | | |
| 1945..... | 986 | 61,339 | 107,050,824 | 228,855,956 | 252,944,165 | 498,630,798 |
| 1947..... | 1,046 | 39,237 | 78,993,517 | 238,310,157 | 234,056,973 | 488,307,293 |
| 1949..... | 1,037 | 41,328 | 100,690,662 | 280,008,945 | 288,171,551 | 587,398,215 |
| 1951..... | 1,037 | 45,664 | 131,310,151 | 366,957,695 | 384,026,141 | 776,489,391 |
| 1954..... | 1,116 | 51,603 | 177,311,960 | 437,051,091 | 476,125,328 | 935,724,880 |
| 1955..... | 1,126 | 51,856 | 185,267,943 | 480,104,190 | 528,923,509 | 1,044,079,000 |
| Miscellaneous Industries— | | | | | | |
| 1945..... | 692 | 24,024 | 37,187,275 | 83,549,139 | 59,608,689 | 144,523,599 |
| 1947..... | 800 | 22,247 | 36,291,117 | 44,390,608 | 65,708,603 | 111,532,447 |
| 1949..... | 893 | 26,401 | 51,147,475 | 59,778,187 | 94,600,066 | 156,363,321 |
| 1951..... | 1,173 | 28,756 | 66,908,755 | 87,282,415 | 120,899,546 | 210,804,555 |
| 1954..... | 1,360 | 31,071 | 85,748,818 | 102,179,368 | 149,157,222 | 252,306,085 |
| 1955..... | 1,524 | 31,511 | 89,239,630 | 114,448,353 | 164,876,649 | 283,147,866 |

¹ In 1952 gross value of products was replaced by value of factory shipments; see text on pp. 633-634. ² Not comparable with previous years because of major changes in concept affecting the data for the primary iron and steel industry.

Detailed Statistics by Group and Individual Industries.—Table 10 presents for 1955 detailed statistics regarding the individual industries under which all industrial plants in Canada are classified. The industries are assembled under seventeen main groups according to the Standard Industrial Classification.

In interpreting the statistics of individual industries it should be noted that the figures on employment, production, etc., do not refer to individual products but to all the products produced by an industry. For example the value of production of the confectionery industry amounting to \$112,630,426 in 1955 does not imply that this was the value of confectionery produced. What it means is that the firms whose principal product was confectionery had a value of production of \$112,630,426. This figure, in addition to confectionery, includes all the subsidiary products made by these firms, such as ice cream which was valued at \$3,505,761 and bread and other bakery products valued at \$1,596,455. Confectionery is also produced as a subsidiary product by firms credited to other industrial classifications. The quantities and values of the principal individual commodities produced are given in Table 11. Commodities produced in small quantities are not included, but the list covers approximately 75 p.c. of total production.

10.—Principal Statistics of Individual Manufacturing Industries 1955

NOTE.—Comparable figures for 1954 have not been published in the Canada Year Book but are available from DBS publication *General Review of the Manufacturing Industries of Canada, 1964*.

| Group and Industry | Estab- lish- ments | Em- ployees | Earnings | Cost at Plant of Materials Used | Value Added by Manufacture | Selling Value of Factory Shipments |
|---|--------------------------|----------------|--------------------|---------------------------------------|----------------------------------|--|
| | No. | No. | \$ | \$ | \$ | \$ |
| Foods and Beverages..... | 8,134 | 180,085 | 498,786,577 | 2,319,782,949 | 1,257,652,677 | 3,614,315,616 |
| Bakery Products— | | | | | | |
| Biscuits..... | 43 | 6,124 | 14,611,402 | 34,000,392 | 36,312,264 | 71,677,784 |
| Bread and other bakery products..... | 2,618 | 34,416 | 87,760,004 | 133,299,250 | 146,133,537 | 289,019,294 |
| Beverages— | | | | | | |
| Breweries..... | 58 | 8,368 | 34,387,685 | 48,677,904 | 158,370,826 | 210,571,853 |
| Carbonated beverages..... | 540 | 7,605 | 20,642,753 | 37,712,394 | 76,015,420 | 116,582,499 |
| Distilled liquors..... | 20 | 5,179 | 17,647,985 | 44,385,387 | 86,402,608 | 129,629,813 |
| Wines..... | 20 | 538 | 1,906,992 | 5,442,759 | 7,377,747 | 12,396,135 |
| Canning and Processing— | | | | | | |
| Fish processing..... | 574 | 14,626 | 26,320,382 | 101,921,132 | 55,304,122 | 159,888,395 |
| Fruit and vegetable prepara- tions..... | 459 | 17,151 | 38,939,576 | 143,958,545 | 97,208,879 | 234,075,326 |
| Dairy Products— | | | | | | |
| Butter and cheese..... | 1,423 | 20,444 | 56,670,536 | 315,926,042 | 103,069,896 | 427,092,300 |
| Cheese, process..... | 18 | 1,184 | 3,401,008 | 20,003,518 | 5,518,648 | 25,280,990 |
| Concentrated milk products... | 29 | 1,476 | 4,312,934 | 53,419,184 | 15,337,918 | 71,583,531 |
| Dairy products, other..... | 44 | 846 | 2,264,042 | 6,563,310 | 5,161,113 | 12,099,114 |
| Grain Mill Products— | | | | | | |
| Feeds, stock and poultry, prepared..... | 769 | 6,376 | 16,659,900 | 147,732,071 | 38,987,058 | 189,799,395 |
| Feed mills..... | 605 | 1,536 | 2,693,525 | 19,978,186 | 5,404,160 | 26,048,402 |
| Flour mills..... | 77 | 4,853 | 15,478,817 | 185,004,008 | 35,538,808 | 221,894,538 |
| Foods, breakfast..... | 17 | 1,262 | 4,139,486 | 10,497,068 | 17,638,670 | 28,584,222 |
| Meat Products— | | | | | | |
| Animal oils and fats..... | 15 | 351 | 1,148,021 | 3,141,751 | 2,458,548 | 5,912,675 |
| Sausage and sausage casings... | 93 | 1,497 | 4,333,462 | 16,712,881 | 9,686,079 | 26,760,222 |
| Slaughtering and meat packing | 153 | 23,655 | 83,006,946 | 627,479,460 | 178,578,637 | 809,467,773 |
| Other Food Industries— | | | | | | |
| Confectionery..... | 227 | 9,124 | 21,293,169 | 61,152,885 | 50,347,912 | 112,630,426 |
| Macaroni and kindred products | 17 | 672 | 1,758,135 | 5,971,292 | 3,846,453 | 9,896,911 |
| Sugar refining..... | 11 | 3,376 | 11,548,086 | 87,782,720 | 33,002,905 | 119,672,837 |
| Miscellaneous food preparations | 304 | 9,426 | 27,861,731 | 209,020,810 | 89,950,469 | 303,751,181 |
| Tobacco and Tobacco Products.. | 56 | 9,529 | 29,446,891 | 163,027,885 | 88,652,932 | 250,933,785 |
| Tobacco, cigars and cigarettes.. | 40 | 7,470 | 25,118,846 | 84,438,935 | 78,959,320 | 162,382,718 |
| Tobacco, processing and packing. | 16 | 2,059 | 4,328,045 | 78,588,950 | 9,693,612 | 88,551,067 |
| Rubber Products..... | 82 | 21,913 | 73,774,964 | 137,074,770 | 187,029,017 | 322,412,379 |
| Rubber goods (including foot- wear)..... | 82 | 21,913 | 73,774,964 | 137,074,770 | 187,029,017 | 322,412,379 |
| Leather Products..... | 646 | 30,575 | 68,970,276 | 108,961,619 | 107,215,340 | 218,043,090 |
| Footwear, leather..... | 257 | 19,829 | 42,839,930 | 59,510,235 | 66,128,612 | 125,552,623 |
| Gloves and mittens, leather.... | 12 | 1,711 | 3,125,734 | 5,039,888 | 4,450,158 | 9,628,042 |
| Leather tanning..... | 54 | 3,821 | 11,364,476 | 27,695,719 | 19,244,679 | 48,398,161 |
| Belting, leather..... | 10 | 136 | 426,779 | 600,456 | 685,446 | 1,366,333 |
| Boot and shoe findings, leather.. | 31 | 600 | 1,438,651 | 3,276,362 | 2,190,545 | 5,562,101 |
| Miscellaneous leather goods, n.e.s. | 222 | 4,478 | 9,774,706 | 12,838,959 | 14,515,900 | 27,535,830 |
| Textiles..... | 977 | 69,144 | 187,805,044 | 408,890,576 | 314,533,385 | 734,515,445 |
| Cotton Goods— | | | | | | |
| Cotton thread..... | 11 | 939 | 2,274,593 | 5,098,589 | 4,974,189 | 9,861,986 |
| Cotton yarn and cloth..... | 50 | 21,537 | 56,411,050 | 149,561,429 | 77,291,220 | 229,684,041 |
| Miscellaneous cotton goods.... | 15 | 622 | 1,800,369 | 5,042,036 | 3,286,848 | 8,499,301 |
| Woolen Goods— | | | | | | |
| Carpets, mats and rugs..... | 18 | 1,527 | 4,253,066 | 7,726,179 | 7,192,756 | 15,587,015 |
| Woolen cloth..... | 70 | 6,633 | 16,522,702 | 32,372,593 | 24,535,275 | 58,773,448 |
| Woolen yarn..... | 44 | 2,937 | 7,080,950 | 19,639,928 | 11,168,868 | 31,529,947 |
| Miscellaneous woolen goods.... | 37 | 2,227 | 6,873,072 | 17,985,902 | 14,479,223 | 33,020,133 |
| Synthetic textiles and silk..... | 48 | 15,408 | 46,927,250 | 69,895,625 | 86,031,246 | 159,233,708 |
| Other Primary Textiles— | | | | | | |
| Dyeing and finishing of textiles | 56 | 2,062 | 6,058,936 | 4,121,238 | 9,496,406 | 14,281,378 |
| Narrow fabrics..... | 47 | 2,060 | 4,990,582 | 7,794,972 | 9,510,878 | 17,406,326 |

10.—Principal Statistics of Individual Manufacturing Industries 1955—continued

| Group and Industry | Estab- lish- ments | Em- ployees | Earnings | Cost at Plant of Materials Used | Value Added by Manufacture | Selling Value of Factory Shipments |
|--|--------------------------|----------------|--------------------|---------------------------------------|----------------------------------|--|
| | No. | No. | \$ | \$ | \$ | \$ |
| Textiles—concluded | | | | | | |
| Other Textile Industries— | | | | | | |
| Automobile accessories, fabric. | 17 | 995 | 3,013,549 | 8,615,381 | 5,736,933 | 14,237,169 |
| Awnings, tents and sails..... | 139 | 1,722 | 3,661,311 | 7,256,353 | 6,533,155 | 13,998,095 |
| Bags, cotton and jute..... | 36 | 1,114 | 2,593,532 | 21,624,421 | 4,097,704 | 25,912,629 |
| Cordage, rope and twine..... | 17 | 1,191 | 3,735,936 | 8,089,835 | 7,269,748 | 15,571,556 |
| Embroideries, pleating, hem- stitching, etc..... | 168 | 1,879 | 4,005,650 | 3,100,200 | 6,410,287 | 9,561,215 |
| Oilcloth, linoleum and other coated fabric..... | 17 | 2,307 | 8,045,530 | 15,607,991 | 15,421,633 | 31,172,275 |
| Miscellaneous textiles, <i>n.e.s.</i> ... | 187 | 3,984 | 9,556,966 | 25,357,904 | 21,097,016 | 46,185,223 |
| Knitting Mills..... | 296 | 21,658 | 47,208,208 | 75,705,514 | 77,465,979 | 155,186,763 |
| Hosiery..... | 127 | 9,266 | 21,378,299 | 23,497,527 | 33,687,991 | 57,992,648 |
| Knitted goods..... | 169 | 12,392 | 25,829,909 | 52,207,987 | 43,777,988 | 97,194,115 |
| Clothing..... | 2,648 | 89,686 | 196,436,479 | 359,882,938 | 323,644,673 | 684,361,902 |
| Men's, Women's and Children's | | | | | | |
| Clothing— | | | | | | |
| Clothing, children's, factory.. | 180 | 7,065 | 13,340,603 | 27,747,843 | 21,819,526 | 49,848,404 |
| Clothing, men's, factory..... | 570 | 31,445 | 68,809,295 | 137,857,666 | 113,367,324 | 250,462,315 |
| Clothing, women's, factory... | 750 | 26,925 | 61,455,380 | 121,858,177 | 103,911,069 | 226,347,078 |
| Clothing contractors, men's... | 153 | 4,663 | 8,297,903 | 1,040,597 | 10,391,753 | 11,597,592 |
| Clothing contractors, women's | 116 | 2,539 | 4,070,792 | 247,383 | 5,459,682 | 5,777,900 |
| Miscellaneous Clothing— | | | | | | |
| Corsets..... | 42 | 3,779 | 7,332,035 | 9,865,903 | 14,963,484 | 25,185,878 |
| Fur dressing and dyeing..... | 18 | 1,162 | 3,295,341 | 1,127,805 | 5,288,772 | 6,498,292 |
| Fur goods..... | 558 | 5,019 | 14,123,119 | 38,389,138 | 22,214,802 | 60,349,881 |
| Gloves and mittens, fabric.... | 11 | 681 | 1,077,349 | 2,046,517 | 2,145,183 | 4,231,153 |
| Hats and caps..... | 165 | 4,561 | 10,536,317 | 11,659,269 | 16,778,289 | 28,695,413 |
| Oiled and waterproofed cloth- ing..... | 13 | 435 | 1,095,261 | 1,972,179 | 1,937,230 | 3,915,807 |
| Clothing, <i>n.e.s.</i> | 72 | 1,412 | 3,003,084 | 6,076,461 | 5,367,559 | 11,452,689 |
| Wood Products..... | 11,804 | 133,673 | 354,439,897 | 723,815,493 | 631,857,981 | 1,375,343,554 |
| Furniture..... | 1,822 | 30,623 | 84,242,386 | 125,400,624 | 132,521,922 | 261,551,101 |
| Saw and Planing Mills— | | | | | | |
| Flooring, hardwood..... | 29 | 1,738 | 4,613,053 | 10,639,454 | 7,363,509 | 18,318,832 |
| Sash, door and planing mills.. | 1,837 | 20,239 | 52,185,678 | 148,364,225 | 86,288,605 | 238,281,804 |
| Sawmills..... | 7,333 | 58,586 | 152,556,819 | 338,870,204 | 296,940,188 | 644,482,990 |
| Veneers and plywoods..... | 61 | 10,296 | 31,338,985 | 54,709,222 | 60,118,322 | 116,204,035 |
| Other Wood Industries— | | | | | | |
| Beekeepers' and poultrymen's supplies..... | 7 | 64 | 117,143 | 199,496 | 200,223 | 395,496 |
| Boxes and baskets, wood..... | 168 | 3,695 | 8,479,591 | 12,249,849 | 13,569,579 | 26,317,798 |
| Cooperage..... | 76 | 626 | 1,568,343 | 3,261,008 | 2,094,861 | 5,477,484 |
| Excelsior..... | 13 | 139 | 294,418 | 222,153 | 428,843 | 693,896 |
| Lasts, trees and shoe findings. | 16 | 567 | 1,318,080 | 1,151,481 | 2,080,819 | 3,287,704 |
| Morticians' goods..... | 58 | 1,333 | 3,152,273 | 3,846,808 | 4,975,406 | 8,934,480 |
| Woodenware..... | 30 | 592 | 1,121,660 | 1,316,206 | 1,552,697 | 3,064,960 |
| Wood turning..... | 67 | 1,149 | 2,536,676 | 3,141,877 | 4,037,145 | 7,276,809 |
| Miscellaneous wood products, <i>n.e.s.</i> | 287 | 4,026 | 10,914,792 | 20,442,886 | 19,705,862 | 41,056,165 |
| Paper Products..... | 580 | 89,750 | 349,777,049 | 793,008,069 | 867,261,587 | 1,754,098,505 |
| Boxes and bags, paper..... | 208 | 14,613 | 43,990,063 | 129,064,316 | 83,249,425 | 213,459,941 |
| Pulp and paper..... | 125 | 62,205 | 265,298,119 | 546,079,192 | 689,818,173 | 1,326,938,138 |
| Roofing paper..... | 28 | 2,548 | 8,634,031 | 22,585,651 | 18,965,855 | 41,754,735 |
| Miscellaneous paper goods..... | 219 | 10,384 | 31,854,836 | 95,278,910 | 75,228,134 | 171,945,691 |
| Printing, Publishing and Allied Trades..... | 4,494 | 69,602 | 234,579,858 | 199,161,743 | 415,668,242 | 619,828,786 |
| Commercial Printing— | | | | | | |
| Printing and bookbinding..... | 1,813 | 24,520 | 76,452,537 | 71,517,754 | 127,560,535 | 200,961,881 |
| Trade composition..... | 51 | 933 | 3,650,503 | 406,075 | 5,138,494 | 5,595,748 |
| Engraving, Stereotyping and Allied Industries— | | | | | | |
| Engraving, stereotyping and electrotyping..... | 136 | 4,336 | 18,692,875 | 6,922,932 | 27,931,556 | 35,216,573 |
| Lithographing..... | 88 | 4,381 | 15,566,779 | 18,966,173 | 26,297,321 | 45,604,661 |

10.—Principal Statistics of Individual Manufacturing Industries 1955—continued

| Group and Industry | Estab- lish- ments | Em- ployees | Earnings | Cost at Plant of Materials Used | Value Added by Manufacture | Selling Value of Factory Shipments |
|---|--------------------------|----------------|--------------------|---------------------------------------|----------------------------------|--|
| | No. | No. | \$ | \$ | \$ | \$ |
| Printing, Publishing and Allied Trades—concluded | | | | | | |
| Printing and Publishing— | | | | | | |
| Printing and publishing..... | 789 | 29,855 | 107,844,086 | 75,020,033 | 197,778,684 | 275,159,495 |
| Publishing (only) of periodicals | 1,617 | 5,577 | 12,373,078 | 26,328,776 | 30,961,652 | 57,290,428 |
| Iron and Steel Products..... | 2,895 | 181,700 | 667,657,079 | 1,005,246,993 | 1,199,245,953 | 2,242,717,918 |
| Agricultural implements..... | 77 | 11,753 | 41,929,040 | 59,283,305 | 54,464,347 | 113,923,309 |
| Boilers, tanks and platework.... | 101 | 8,378 | 31,218,918 | 41,388,589 | 51,813,520 | 93,486,695 |
| Bridge building and structural steel..... | 49 | 11,863 | 46,557,144 | 70,731,908 | 76,453,347 | 157,712,340 |
| Castings, iron..... | 201 | 15,266 | 55,273,998 | 84,452,041 | 97,595,101 | 182,906,534 |
| Hardware, tools and cutlery.... | 379 | 13,115 | 44,581,498 | 49,174,071 | 83,468,849 | 133,572,735 |
| Heating and cooking apparatus.. | 123 | 9,148 | 29,798,730 | 56,762,067 | 55,428,354 | 112,987,132 |
| Machinery, household, office and store..... | 77 | 8,333 | 28,009,461 | 46,709,159 | 58,046,043 | 106,261,768 |
| Machinery, industrial..... | 321 | 23,838 | 86,529,705 | 102,665,897 | 146,908,572 | 252,944,378 |
| Machine shops..... | 674 | 6,814 | 21,390,958 | 15,830,901 | 31,721,004 | 48,498,932 |
| Machine tools..... | 10 | 1,137 | 4,691,926 | 3,600,490 | 5,666,329 | 9,218,288 |
| Primary iron and steel..... | 50 | 32,507 | 136,879,403 | 212,288,266 | 291,793,126 | 526,318,453 |
| Sheet metal products..... | 361 | 19,080 | 66,662,817 | 138,211,294 | 121,016,972 | 260,167,480 |
| Wire and wire goods..... | 125 | 9,261 | 34,301,474 | 68,537,562 | 59,514,629 | 130,457,880 |
| Miscellaneous iron and steel products..... | 347 | 11,207 | 39,832,007 | 46,611,443 | 65,355,760 | 114,261,994 |
| Transportation Equipment..... | 594 | 131,789 | 490,434,996 | 1,117,768,836 | 809,748,007 | 1,950,410,035 |
| Aircraft and parts..... | 52 | 33,036 | 130,269,009 | 140,831,164 | 208,800,111 | 354,314,837 |
| Bicycles and parts..... | 6 | 640 | 2,141,014 | 1,529,113 | 4,146,004 | 5,875,752 |
| Boat building..... | 204 | 1,666 | 4,177,319 | 4,397,785 | 5,544,205 | 10,267,548 |
| Carriages, wagons and sleighs ¹ .. | 27 | 793 | 2,179,376 | 4,015,082 | 3,672,985 | 7,894,091 |
| Motor vehicles..... | 15 | 33,429 | 134,661,758 | 631,181,084 | 269,601,907 | 907,410,923 |
| Motor vehicle parts..... | 188 | 19,996 | 74,581,239 | 149,004,157 | 130,778,716 | 285,070,612 |
| Railway rolling-stock..... | 32 | 25,400 | 86,257,623 | 139,476,062 | 102,324,180 | 245,739,330 |
| Shipbuilding..... | 70 | 16,829 | 56,167,658 | 47,335,389 | 84,879,899 | 133,836,942 |
| Non-ferrous Metal Products.... | 581 | 53,311 | 201,109,879 | 974,792,188 | 590,744,048 | 1,626,950,855 |
| Aluminum products..... | 93 | 6,832 | 24,025,405 | 45,961,129 | 31,733,656 | 79,839,602 |
| Brass and copper products..... | 157 | 8,864 | 32,274,041 | 150,395,034 | 64,086,451 | 216,500,000 |
| Jewellery and silverware..... | 221 | 5,178 | 13,680,463 | 25,711,100 | 22,245,768 | 48,016,269 |
| Non-ferrous metal smelting and refining..... | 24 | 28,606 | 118,189,378 | 710,762,890 | 443,805,081 | 1,211,716,481 |
| White metal alloys..... | 60 | 3,102 | 10,496,152 | 38,099,192 | 24,384,056 | 62,505,196 |
| Miscellaneous non-ferrous metal products..... | 26 | 729 | 2,444,440 | 3,862,843 | 4,489,036 | 8,403,307 |
| Electrical Apparatus and Supplies..... | 468 | 76,244 | 264,031,474 | 477,655,753 | 469,918,651 | 962,615,012 |
| Batteries..... | 36 | 2,237 | 7,872,246 | 23,718,135 | 15,722,359 | 40,055,423 |
| Telecommunication equipment.... | 126 | 19,036 | 61,741,290 | 155,719,565 | 112,579,145 | 263,420,279 |
| Refrigerators, vacuum cleaners and appliances..... | 79 | 9,463 | 30,387,878 | 64,513,978 | 61,797,166 | 135,669,776 |
| Machinery, heavy electrical..... | 70 | 22,216 | 81,904,903 | 75,020,917 | 120,703,089 | 198,408,390 |
| Miscellaneous electrical appar- atus and supplies..... | 157 | 23,292 | 82,125,157 | 158,683,158 | 159,116,892 | 325,061,144 |
| Non-metallic Mineral Products. | 1,171 | 38,949 | 131,006,731 | 174,489,301 | 301,656,877 | 514,118,801 |
| Abrasives, artificial..... | 17 | 2,695 | 10,567,048 | 15,293,264 | 21,933,836 | 42,519,695 |
| Asbestos products..... | 16 | 2,075 | 7,222,575 | 12,889,656 | 16,393,874 | 30,127,022 |
| Cement, hydraulic..... | 12 | 2,822 | 11,100,205 | 11,505,305 | 44,336,891 | 68,812,666 |
| Clay products from domestic clay..... | 118 | 4,270 | 13,566,021 | 886,736 | 30,178,957 | 35,259,770 |
| Clay products from imported clay..... | 37 | 2,105 | 6,813,657 | 4,911,302 | 12,634,247 | 18,394,390 |
| Concrete products..... | 592 | 9,780 | 30,730,408 | 63,323,732 | 68,502,883 | 133,826,687 |
| Glass and glass products..... | 108 | 7,870 | 26,291,404 | 31,000,677 | 45,139,201 | 80,830,622 |
| Gypsum products..... | 12 | 1,977 | 6,830,904 | 13,893,069 | 16,388,745 | 31,469,039 |

¹ Includes miscellaneous transportation equipment items.

10.—Principal Statistics of Individual Manufacturing Industries 1955—concluded

| Group and Industry | Estab- lish- ments | Em- ployees | Earnings | Cost at Plant of Materials Used | Value Added by Manufacture | Selling Value of Factory Shipments |
|---|--------------------------|------------------|----------------------|---------------------------------------|----------------------------------|--|
| | No. | No. | \$ | \$ | \$ | \$ |
| Non-metallic Mineral Products —concluded | | | | | | |
| Lime..... | 39 | 1,118 | 3,849,141 | 1,308,751 | 11,793,430 | 16,576,891 |
| Salt..... | 13 | 809 | 2,839,440 | 2,280,268 | 8,569,792 | 11,869,077 |
| Sand-lime brick..... | 4 | 162 | 571,315 | 443,848 | 1,057,528 | 1,630,677 |
| Stone products..... | 153 | 2,316 | 7,445,642 | 8,610,581 | 15,684,506 | 24,985,809 |
| Miscellaneous non-metallic mineral products..... | 50 | 950 | 3,178,971 | 8,142,112 | 9,042,987 | 17,816,456 |
| Products of Petroleum and Coal | 106 | 17,486 | 72,436,559 | 704,384,995 | 417,349,989 | 1,160,824,499 |
| Coke and gas products..... | 25 | 3,736 | 13,181,383 | 57,844,131 | 39,841,008 | 103,891,182 |
| Petroleum products..... | 61 | 13,340 | 57,892,387 | 642,872,134 | 373,368,631 | 1,048,834,455 |
| Miscellaneous products of petroleum and coal..... | 20 | 410 | 1,362,789 | 3,668,730 | 4,140,450 | 8,098,862 |
| Chemicals and Allied Products | 1,126 | 51,856 | 185,267,943 | 480,104,190 | 528,928,509 | 1,044,079,000 |
| Acids, alkalies and salts..... | 45 | 8,597 | 35,547,851 | 61,686,514 | 95,023,999 | 172,255,750 |
| Fertilizers..... | 39 | 2,935 | 11,542,380 | 41,396,928 | 45,895,045 | 92,498,839 |
| Medicinal and pharmaceutical preparations..... | 210 | 7,629 | 23,937,050 | 33,819,677 | 72,703,379 | 108,121,734 |
| Paints, varnishes and lacquers..... | 122 | 5,994 | 20,768,461 | 59,785,089 | 58,245,997 | 117,184,189 |
| Primary plastics..... | 23 | 3,036 | 12,332,507 | 40,264,982 | 33,760,502 | 75,052,166 |
| Soaps, washing compounds and cleaning preparations..... | 141 | 3,827 | 14,047,369 | 44,918,815 | 54,284,965 | 100,105,140 |
| Toilet preparations..... | 98 | 2,166 | 5,890,056 | 13,842,997 | 23,029,087 | 36,849,128 |
| Vegetable oils..... | 12 | 682 | 2,503,689 | 42,018,137 | 7,017,207 | 50,322,215 |
| Other Chemical Industries— | | | | | | |
| Adhesives..... | 29 | 576 | 1,934,597 | 5,030,858 | 5,368,263 | 10,908,938 |
| Coal tar distillation..... | 11 | 528 | 2,080,557 | 7,010,908 | 4,802,463 | 11,892,812 |
| Gases, compressed..... | 52 | 1,387 | 4,759,759 | 2,942,918 | 12,985,965 | 16,501,924 |
| Inks, compressed..... | 35 | 986 | 3,416,557 | 5,903,527 | 8,739,452 | 14,748,162 |
| Polishes and dressings..... | 48 | 805 | 2,563,953 | 8,746,585 | 10,412,904 | 19,605,544 |
| Miscellaneous chemical products, n.e.s..... | 261 | 12,698 | 43,943,157 | 112,736,255 | 96,659,281 | 218,032,459 |
| Miscellaneous Industries | 1,524 | 31,511 | 89,239,630 | 114,448,353 | 164,876,649 | 282,147,866 |
| Brooms, brushes and mops..... | 101 | 2,113 | 5,103,727 | 7,823,119 | 9,150,960 | 17,299,701 |
| Clocks, watches and watch cases..... | 35 | 1,107 | 3,501,645 | 7,027,734 | 6,945,639 | 14,299,124 |
| Fountain pens and pencils..... | 17 | 1,040 | 2,713,923 | 5,164,258 | 6,053,119 | 11,458,847 |
| Musical instruments..... | 28 | 1,213 | 3,491,161 | 3,134,123 | 6,876,363 | 10,182,867 |
| Plastics products..... | 170 | 4,379 | 11,333,120 | 24,247,328 | 24,459,307 | 48,732,590 |
| Scientific and professional equipment..... | 151 | 6,514 | 22,957,061 | 22,789,219 | 40,149,398 | 63,223,468 |
| Sporting goods..... | 92 | 1,828 | 4,500,836 | 4,975,649 | 7,841,030 | 13,032,152 |
| Toys and games..... | 56 | 1,405 | 3,320,076 | 6,231,378 | 5,762,524 | 12,311,395 |
| Typewriter supplies..... | 10 | 395 | 1,216,459 | 2,510,102 | 2,582,566 | 5,120,176 |
| Other Miscellaneous Industries— | | | | | | |
| Artificial flowers and feathers..... | 44 | 468 | 904,149 | 993,903 | 1,508,317 | 2,530,755 |
| Buttons, buckles and fasteners..... | 45 | 1,569 | 4,102,266 | 5,096,486 | 6,583,795 | 12,098,620 |
| Candles..... | 15 | 224 | 566,958 | 1,137,845 | 1,470,731 | 2,625,924 |
| Hair goods..... | 13 | 102 | 297,776 | 873,382 | 513,909 | 1,884,282 |
| Ice, artificial..... | 66 | 550 | 1,525,372 | 183,129 | 3,194,479 | 3,908,327 |
| Lamps, electric and lamp shades..... | 65 | 1,283 | 2,789,422 | 4,817,295 | 4,980,403 | 9,850,158 |
| Models and patterns, excluding paper..... | 70 | 387 | 1,473,898 | 475,261 | 2,322,837 | 2,842,375 |
| Pipes, lighters and smokers' supplies..... | 13 | 175 | 472,493 | 1,165,152 | 1,214,611 | 2,443,097 |
| Signs, electric, neon and other..... | 305 | 3,102 | 9,777,004 | 7,819,492 | 16,930,088 | 25,278,087 |
| Stamps and stencils, rubber and metal..... | 65 | 897 | 2,605,349 | 1,596,363 | 4,008,974 | 5,642,901 |
| Statuary, art goods, regalia and novelties..... | 117 | 882 | 1,982,841 | 1,633,705 | 2,988,597 | 4,712,793 |
| Umbrellas..... | 8 | 167 | 347,779 | 713,814 | 625,735 | 1,314,797 |
| Miscellaneous industries..... | 38 | 1,711 | 4,256,315 | 4,039,616 | 8,713,267 | 12,857,430 |
| Totals, All Industries | 38,182 | 1,298,461 | 4,142,409,534 | 10,338,202,165 | 8,753,450,496 | 19,513,933,811 |

11.—Quantity and Value of the Principal Commodities Produced or Shipped by the Manufacturing Industries 1954 and 1955

NOTE.—All values in this table are for factory shipments except for those items marked with an asterisk which are for gross value of products.

| Group and Commodity | Unit of Measure | 1954 | | 1955 | |
|--|-----------------|---------------|-------------|---------------|-------------|
| | | Quantity | Value \$ | Quantity | Value \$ |
| Foods— | | | | | |
| Biscuits, all kinds..... | lb. | 236,902,540 | 66,070,322 | 237,594,676 | 66,593,369 |
| Bread..... | " | 1,525,974,000 | 173,166,427 | 1,530,048,000 | 175,096,743 |
| Butter, factory made..... | " | 316,781,734 | 184,742,536 | 320,266,563 | 186,497,693 |
| Cheese, factory made..... | " | 153,142,290 | 49,793,305 | 147,344,348 | 47,283,926 |
| Confectionery, all kinds..... | " | — | 75,363,925 | — | 74,110,101 |
| Cream, sold in dairy factories..... | lb. b. fat | 26,907,155 | 29,516,389 | 28,335,016 | 31,302,794 |
| Feed, chopped, grain..... | ton | 532,577 | 30,703,705 | 549,829 | 30,678,969 |
| Feeds, stock and poultry, prepared..... | " | 2,088,290 | 170,969,205 | 2,136,161 | 168,995,517 |
| Fish, canned and otherwise prepared*..... | lb. | 271,473,296 | 71,178,800 | 225,731,848 | 62,701,400 |
| Flour, wheat..... | bbl. | 20,837,671 | 177,870,676 | 20,267,761 | 166,010,092 |
| Fruits and vegetables, canned..... | lb. | 582,112,121 | 75,059,995 | 629,568,193 | 79,247,333 |
| Fruits and vegetables, frozen*..... | " | — | 9,349,267 | — | 10,730,463 |
| Ice cream, factory made..... | gal. | 27,976,186 | 46,598,754 | 31,311,644 | 50,981,337 |
| Jams, jellies and marmalades*..... | lb. | — | 20,067,696 | 108,925,606 | 19,343,220 |
| Lard..... | " | 93,927,740 | 17,181,197 | 105,514,021 | 14,659,175 |
| Meats, canned, including poultry, pastes, etc..... | " | 68,029,709 | 33,720,611 | 86,517,771 | 38,831,870 |
| Meats, cooked, including sausage, weiners, etc..... | " | 239,671,107 | 95,414,327 | 259,636,263 | 96,166,752 |
| Meats, cured and smoked..... | " | 226,878,266 | 123,748,512 | 251,669,910 | 119,790,229 |
| Meats, sold fresh and frozen, including poultry..... | " | 1,439,405,208 | 474,308,910 | 1,392,369,010 | 452,775,374 |
| Milk, sold in dairy factories..... | gal. | 175,297,372 | 122,900,489 | 177,370,835 | 128,004,175 |
| Milk, evaporated and condensed..... | lb. | 297,805,823 | 35,627,414 | 310,985,600 | 36,797,953 |
| Pickles, relishes and catsup..... | ... | — | 18,279,860 | — | 19,698,062 |
| Pies, cakes and pastry..... | ... | — | 72,127,030 | — | 77,397,196 |
| Powders, edible (custard, jelly, milk, etc.)..... | ... | — | 33,739,763 | — | 36,978,275 |
| Shortening..... | lb. | 157,106,453 | 37,307,514 | 153,902,880 | 35,031,438 |
| Soups, canned (except infants)..... | " | 212,397,846 | 34,104,633 | 224,000,394 | 36,082,930 |
| Sugar, granulated (cane and beet)..... | " | 1,248,624,972 | 96,047,644 | 1,293,932,061 | 98,644,306 |
| Tea and coffee, roasted, blended and packed..... | " | 115,589,949 | 124,267,838 | 117,006,439 | 119,948,089 |
| Beverages—1 | | | | | |
| Aerated waters*..... | gal. | 105,930,881 | 92,770,753 | 118,441,866 | 103,651,706 |
| Beer, ale, stout and porter (sales)..... | " | 200,459,309 | 317,725,745 | 211,101,903 | 331,117,100 |
| Beverage spirits, sold (net sales)..... | pr. gal. | 11,946,178 | 91,407,737 | 11,847,649 | 91,211,509 |
| Wine, sold..... | Imp. gal. | 4,546,411 | 11,635,797 | 4,687,848 | 12,012,356 |
| Tobacco and Tobacco Products—1 | | | | | |
| Cigarettes..... | '000 | 22,425,791 | 303,682,204 | 24,864,332 | 332,011,517 |
| Cigars..... | " | 240,520 | 17,925,856 | 257,233 | 19,360,206 |
| Tobacco, chewing, smoking and snuff*..... | lb. | 27,284,959 | 68,074,687 | 23,455,973 | 58,414,898 |
| Tobacco, raw leaf, processed*..... | " | 122,254,714 | 73,307,323 | 151,363,083 | 88,551,067 |
| Textile Products (except Clothing)— | | | | | |
| Bags, cotton and jute..... | No. | 118,494,903 | 23,463,072 | 118,399,411 | 22,465,462 |
| Blankets..... | ... | — | 13,222,927 | — | 13,698,117 |
| Carpets, mats and rugs..... | ... | — | 13,376,425 | — | 15,125,899 |
| Cotton fabrics..... | ... | — | 104,812,860 | — | 125,466,179 |
| Synthetic woven fabrics, all types..... | yd. | 83,002,938 | 57,816,485 | 97,286,197 | 64,267,338 |
| Tire fabrics*..... | lb. | 26,981,597 | 22,274,686 | 32,403,849 | 26,374,151 |
| Twine and cordage..... | ... | — | 12,650,223 | — | 13,931,856 |
| Woven fabrics, wool or containing wool..... | sq. yd. | 22,438,542 | 39,436,580 | 33,085,201 | 49,199,619 |
| Yarns, cotton, rayon, wool, etc. (for sale)*..... | ... | — | 112,640,049 | — | 136,318,344 |
| Clothing— | | | | | |
| Coats and overcoats, cloth, men's and youths'..... | No. | 604,036 | 18,501,714 | 724,471 | 20,665,296 |
| Coats, wool, women's and misses'..... | " | 1,582,413 | 36,281,941 | 1,473,330 | 34,086,240 |

¹ Includes excise taxes on prime cost of spirits and tobacco products.

11.—Quantity and Value of the Principal Commodities Produced or Shipped by the Manufacturing Industries 1954 and 1955—continued

| Group and Commodity | Unit of Measure | 1954 | | 1955 | |
|--|-----------------|------------|-------------|------------|-------------|
| | | Quantity | Value | Quantity | Value |
| | | | \$ | | \$ |
| Clothing—concluded | | | | | |
| Coats, fur, women's (factory made)..... | No. | 214,369 | 46,925,678 | 211,073 | 48,918,139 |
| Coats, short (incl. windbreakers, mackinaws, parkas, leather coats, etc.)..... | doz. | 351,568 | 26,043,746 | 379,949 | 28,082,631 |
| Dresses, women's and misses'..... | No. | 12,725,049 | 73,781,295 | 12,687,705 | 76,714,513 |
| Footwear, leather..... | pr. | 32,147,026 | 115,004,524 | 32,353,422 | 116,397,192 |
| Footwear, rubber..... | pr. | 11,807,103 | 29,458,364 | 13,005,006 | 33,162,482 |
| Gloves and mittens, all kinds..... | doz. pr. | 1,839,334 | 13,565,792 | 1,896,440 | 14,778,033 |
| Hats and caps, men's..... | doz. | 691,894 | 10,574,597 | 410,219 | 8,413,819 |
| Hats, women's and children's..... | doz. | 472,747 | 13,056,018 | 463,840 | 13,879,566 |
| Hosiery, all kinds..... | doz. pr. | 10,231,726 | 60,022,783 | 9,223,527 | 58,185,954 |
| Shirts, fine, work and sport..... | doz. | 2,425,016 | 51,814,735 | 2,468,825 | 54,131,733 |
| Sport suits, slacks and other sport clothing, <i>n.e.s.</i> | ... | — | 14,672,657 | — | 16,582,557 |
| Suits, men's and youths', fine, woollen..... | No. | 1,265,001 | 49,395,783 | 1,256,787 | 48,443,432 |
| Underwear..... | ... | — | 32,313,346 | — | 53,662,247 |
| Wood Products— | | | | | |
| Boxes, wooden..... | ... | — | 12,157,664 | — | 13,462,095 |
| Lumber, planed..... | M ft. b.m. | 3,850,196 | 282,993,372 | 4,385,660 | 335,571,063 |
| Lumber, sawn..... | " | 4,789,233 | 303,177,741 | 5,152,228 | 330,246,866 |
| Pulp, wood, made for sale..... | short ton | 1,859,483 | 222,599,258 | 2,013,303 | 244,017,750 |
| Sash, doors and other mill work..... | ... | — | 66,807,575 | — | 75,510,392 |
| Paper Products— | | | | | |
| Bags, paper..... | ... | — | 45,273,773 | — | 48,588,432 |
| Boxes, paper..... | ... | — | 147,624,495 | — | 161,008,241 |
| Paper, book and writing..... | ton | 269,353 | 68,613,807 | 301,352 | 74,904,349 |
| Paper, newsprint..... | " | 6,000,895 | 657,487,344 | 6,196,319 | 688,338,369 |
| Paper, wrapping..... | " | 250,408 | 51,341,374 | 263,915 | 53,998,859 |
| Paper boards, all types..... | " | 940,196 | 117,172,691 | 1,027,441 | 130,365,751 |
| Printing, Publishing and Allied Trades— | | | | | |
| Books and catalogues, printed and bound..... | ... | — | 34,734,920 | — | 35,597,524 |
| Other advertising matter, printed..... | ... | — | 45,796,251 | — | 51,249,039 |
| Periodicals printed for publishers..... | ... | — | 21,544,914 | — | 23,532,252 |
| Periodicals printed by publishers—Subscriptions and sales..... | ... | — | 59,954,686 | — | 62,224,254 |
| Gross revenue from advertising..... | ... | — | 160,549,493 | — | 174,704,296 |
| Sheet forms, commercial, legal, etc., printed..... | ... | — | 43,742,586 | — | 50,150,941 |
| Iron and Steel Products— | | | | | |
| Bars, iron and steel, hot-rolled (sold)..... | ton | 445,519 | 56,525,130 | 621,819 | 79,841,771 |
| Boilers, heating and power..... | ... | — | 16,349,051 | — | 18,077,991 |
| Castings, grey iron (made for sale)..... | ... | — | 33,439,275 | — | 38,732,201 |
| Farm implements and parts..... | ... | — | 113,089,000 | — | 109,701,000 |
| Forgings, steel and other..... | ... | — | 25,307,936 | — | 28,891,941 |
| Hardware, builders' and other..... | ... | — | 39,356,000 | — | 41,109,000 |
| Machinery, industrial, household, office and store and parts..... | ... | — | 503,853,188 | — | 549,505,000 |
| Pig iron (sold)..... | ton | 455,552 | 22,142,040 | 609,978 | 30,539,000 |
| Pipes, tubing and fittings, iron and steel..... | ... | — | 85,551,000 | — | 121,795,000 |
| Rolled iron and steel forms, semi-finished (sold)..... | net ton | 150,917 | 12,748,936 | 298,646 | 23,114,634 |
| Sheets, bars and other cold-rolled products (sold)..... | " | 557,083 | 95,146,949 | 801,831 | 131,932,043 |
| Steel ingots and castings (sold)..... | " | 86,066 | 35,434,713 | 201,114 | 43,682,247 |
| Steel shapes erected, buildings, bridges, etc.*..... | " | 342,657 | 106,206,032 | 360,741 | 109,992,543 |
| Steel shapes, structural, made in primary mills..... | " | 180,144 | 18,954,742 | 240,105 | 25,650,273 |
| Stoves, coal, wood, electric and gas..... | ... | — | 42,549,729 | — | 49,649,424 |
| Tools and implements, hand, all kinds and parts..... | ... | — | 29,676,000 | — | 30,817,000 |
| Wire, wire rope and cable, steel..... | ... | — | 36,842,971 | — | 44,837,421 |

11.—Quantity and Value of the Principal Commodities Produced or Shipped by the Manufacturing Industries 1954 and 1955—concluded

| Group and Commodity | Unit of Measure | 1954 | | 1955 | |
|--|-----------------|---------------|-------------|---------------|---------------|
| | | Quantity | Value | Quantity | Value |
| | | | \$ | | \$ |
| Transportation Equipment— | | | | | |
| Aircraft, completed in year..... | ... | — | 186,934,184 | — | 108,408,292 |
| Automobiles, commercial..... | No. | 69,454 | 117,613,726 | 78,012 | 136,327,462 |
| Automobiles, passenger..... | " | 287,191 | 436,820,430 | 375,028 | 610,683,424 |
| Automobile parts and accessories, including tires..... | ... | — | 406,315,000 | — | 523,162,000 |
| Buses..... | No. | 438 | 4,678,083 | 557 | 7,128,252 |
| Cars, railway, complete, freight and passenger..... | " | 8,287 | 88,394,712 | 3,736 | 27,821,586 |
| Locomotives, diesel-electric, new | " | 244 | 41,105,438 | 362 | 59,692,536 |
| Ship and ship repairs*..... | ... | — | 180,286,323 | — | 153,474,873 |
| Non-ferrous Metal Products— | | | | | |
| Jewellery..... | ... | — | 18,195,747 | — | 19,466,000 |
| Kitchenware, aluminum..... | ... | — | 8,071,507 | — | 6,831,000 |
| Silverware..... | ... | — | 10,548,924 | — | 10,559,863 |
| Smelter and refinery products*.. | ... | — | 922,578,998 | — | 1,211,716,481 |
| Electrical Apparatus and Supplies— | | | | | |
| Batteries, electric, storage..... | ... | — | 21,366,340 | — | 25,173,394 |
| Radio receiving sets, complete... | No. | 487,620 | 16,509,275 | 621,957 | 19,176,618 |
| Refrigerators, household, mechanical..... | " | 229,945 | 44,033,304 | 271,532 | 49,548,437 |
| Television sets..... | " | 611,206 | 105,682,414 | 806,253 | 130,497,108 |
| Wires and cables, electric..... | ... | — | 122,928,760 | — | 150,732,153 |
| Non-metallic Mineral Products— | | | | | |
| Abrasives, artificial..... | ton | 250,178 | 25,828,451 | 252,109 | 26,358,212 |
| Coke, gas-house*..... | " | 3,424,218 | 50,537,888 | 4,004,624 | 58,241,355 |
| Concrete, ready-mixed..... | ... | — | 42,753,235 | — | 58,918,365 |
| Gas, manufactured and natural, sold*..... | '000 cu. ft. | 113,781,486 | 69,259,359 | 136,737,898 | 75,440,255 |
| Glass, pressed and blown (bottles, sealers, ovenware, etc.)..... | ... | — | 41,739,445 | — | 44,868,777 |
| Chemicals and Allied Products— | | | | | |
| Calcium and sodium compounds.. | ... | — | 41,812,572 | — | 48,103,419 |
| Enamels, lacquers and varnishes. | ... | — | 44,496,262 | — | 52,056,196 |
| Fertilizers, mixed..... | ton | 668,200 | 32,120,000 | 685,700 | 33,112,000 |
| Medicinal and pharmaceutical preparations..... | ... | — | 90,799,000 | — | 100,878,000 |
| Paints, mixed, ready for use..... | Imp. gal. | 10,889,581 | 40,328,532 | 11,664,161 | 42,209,118 |
| Synthetic resins..... | ... | — | 36,647,000 | — | 49,430,000 |
| Soaps and synthetic detergents... | lb. | 287,030,000 | 68,312,000 | 294,896,000 | 70,633,000 |
| Toilet preparations..... | ... | — | 41,105,000 | — | 47,167,000 |
| Miscellaneous— | | | | | |
| Bags, hand and hand luggage.... | ... | — | 14,238,215 | — | 14,962,900 |
| Brooms and household brushes... | doz. | 904,688 | 5,005,317 | 891,118 | 5,091,675 |
| Cans, metal, for food..... | ... | — | 54,933,274 | — | 63,013,733 |
| Furniture, wood and metal, including beds and couches..... | ... | — | 185,821,745 | — | 193,236,408 |
| Gasoline*..... | Imp. gal. | 2,438,654,370 | 446,868,591 | 2,761,317,730 | 506,621,628 |
| Leather, shoe..... | ... | — | 31,403,987 | — | 34,546,034 |
| Mattresses..... | ... | — | 18,410,784 | — | 20,031,757 |
| Mops, floor..... | ... | — | 2,286,622 | — | 2,809,962 |
| Oil, fuel..... | Imp. gal. | 2,715,235,836 | 329,813,361 | 3,215,904,890 | 396,443,216 |
| Pianos, organs and parts..... | ... | — | 4,339,457 | — | 4,709,467 |
| Scientific and professional equipment..... | ... | — | 51,727,273 | — | 49,012,845 |
| Sporting goods..... | ... | — | 12,753,554 | — | 14,852,798 |
| Springs, bed and other furniture. | ... | — | 10,116,441 | — | 11,927,423 |
| Toys and games..... | ... | — | 17,965,116 | — | 20,168,422 |

Subsection 2.—Manufactures classified by Origin of Materials

The distinction made between farm materials of Canadian and foreign origin is based on whether the materials are indigenous to Canada rather than on their actual source. Thus, the industries included in the foreign origin classes are those depending upon materials that cannot be grown in Canada, such as tea, coffee, spices, cane sugar, rice, rubber, cotton, etc. Industries included in the Canadian origin classes may, however, be using large quantities of imported materials.

The mineral origin group includes, in addition to non-ferrous metals so largely produced in Canada, the manufactures of iron and steel, of petroleum, and of other mineral substances, the raw materials for which are very largely imported. Products of mineral origin, with the exception of fuels, are nearly all durable goods.

12.—Principal Statistics of Manufacturing Industries classified according to Origin of Materials Used, by Main Group 1954 and 1955

| Year and Origin of Material Used | Estab- lish- ments | Em- ployees | Earnings | Cost at Plant of Materials Used | Value Added by Manufacture | Selling Value of Factory Shipments |
|-------------------------------------|--------------------------|------------------|----------------------|---------------------------------------|----------------------------------|--|
| | No. | No. | \$ | \$ | \$ | \$ |
| 1954 | | | | | | |
| Farm origin..... | 9,542 | 301,661 | 791,390,838 | 3,010,857,496 | 1,735,120,378 | 4,812,467,809 |
| Mineral origin..... | 6,854 | 539,830 | 1,902,255,686 | 4,083,393,939 | 3,808,242,173 | 8,113,391,979 |
| Forest origin..... | 16,823 | 280,573 | 857,047,039 | 1,547,843,710 | 1,727,150,805 | 3,380,340,406 |
| Marine origin..... | 586 | 14,202 | 26,001,277 | 95,632,683 | 55,219,381 | 153,456,535 |
| Wildlife origin..... | 598 | 6,431 | 17,348,494 | 37,022,130 | 26,595,921 | 64,099,781 |
| Mixed origin..... | 3,625 | 125,269 | 302,644,357 | 467,107,596 | 549,795,481 | 1,030,770,994 |
| Grand Totals..... | 38,028 | 1,267,966 | 3,896,687,691 | 9,241,837,554 | 7,902,124,137 | 17,554,527,504 |
| Farm Origin Group— | | | | | | |
| From field crops..... | 6,135 | 173,171 | 468,666,325 | 1,631,251,171 | 1,170,756,138 | 2,845,128,473 |
| From animal husbandry.... | 3,407 | 128,490 | 322,724,513 | 1,379,606,325 | 564,364,240 | 1,967,339,336 |
| Totals, Farm Origin..... | 9,542 | 301,661 | 791,390,838 | 3,010,857,496 | 1,735,120,378 | 4,812,467,809 |
| Canadian origin..... | 8,612 | 242,239 | 624,181,936 | 2,617,517,447 | 1,377,694,249 | 4,041,115,667 |
| Foreign origin..... | 930 | 59,422 | 167,208,902 | 393,340,049 | 357,426,129 | 771,352,142 |
| 1955 | | | | | | |
| Farm origin..... | 9,563 | 306,775 | 834,466,376 | 3,090,034,728 | 1,886,361,992 | 5,018,043,074 |
| Mineral origin..... | 6,991 | 553,298 | 2,025,503,097 | 4,879,820,983 | 4,292,170,913 | 9,420,260,258 |
| Forest origin..... | 16,742 | 288,689 | 920,103,929 | 1,709,062,373 | 1,886,856,254 | 3,714,054,272 |
| Marine origin..... | 574 | 14,626 | 26,320,382 | 101,921,132 | 55,304,122 | 159,888,395 |
| Wildlife origin..... | 576 | 6,181 | 17,418,460 | 39,510,943 | 27,503,574 | 66,847,673 |
| Mixed origin..... | 3,736 | 128,892 | 318,597,290 | 517,852,006 | 605,253,641 | 1,134,840,139 |
| Grand Totals..... | 38,182 | 1,298,461 | 4,142,409,534 | 10,338,202,165 | 8,753,450,496 | 19,513,933,811 |
| Farm Origin Group— | | | | | | |
| From field crops..... | 6,250 | 177,315 | 498,522,163 | 1,721,204,098 | 1,278,200,614 | 3,020,832,929 |
| From animal husbandry.... | 3,313 | 129,460 | 335,944,213 | 1,368,830,630 | 608,161,378 | 1,997,210,145 |
| Totals, Farm Origin..... | 9,563 | 306,775 | 834,466,376 | 3,090,034,728 | 1,886,361,992 | 5,018,043,074 |
| Canadian origin..... | 8,615 | 244,696 | 653,033,200 | 2,622,997,209 | 1,477,350,908 | 4,138,441,425 |
| Foreign origin..... | 948 | 62,079 | 181,433,176 | 467,037,519 | 409,011,084 | 879,601,649 |

Subsection 3.—Manufactures classified by Type of Ownership

The figures showing the classification of the type of ownership under which Canadian manufacturers operate are available from 1946, although the first survey did not include the fish curing and packing industry. Its inclusion in subsequent years has not materially altered the percentage distribution of individual ownership, incorporated companies, etc.

As is to be expected, the smaller establishments, regardless of the type of products manufactured, are carried on under individual ownership. In that category industries conducted on a small scale contain a large number of establishments, the percentage decreasing as the scale of operations increases, as the following figures for 1955 show:—

| <i>Group</i> | <i>Average Number of Employees per Establishment</i> | <i>Percentage of Individual Ownership Establishments to the Total</i> |
|---|--|---|
| Wood products..... | 11.3 | 60.1 |
| Printing, publishing and allied trades..... | 15.5 | 43.6 |
| Miscellaneous manufacturing industries..... | 20.7 | 35.6 |
| Foods and beverages..... | 22.1 | 46.4 |
| Non-metallic mineral products..... | 33.3 | 32.2 |
| Clothing..... | 33.9 | 27.1 |
| Chemicals and allied products..... | 46.1 | 16.7 |
| Leather products..... | 47.3 | 26.6 |
| Iron and steel products..... | 62.8 | 24.8 |
| Textiles..... | 70.8 | 30.0 |
| Knitting mills..... | 73.2 | 15.2 |
| Non-ferrous metal products..... | 91.8 | 24.8 |
| Paper products..... | 154.7 | 7.9 |
| Electrical apparatus and supplies..... | 162.9 | 7.7 |
| Products of petroleum and coal..... | 164.9 | 1.9 |
| Tobacco and tobacco products..... | 170.2 | 35.7 |
| Transportation equipment..... | 221.9 | 27.9 |
| Rubber products..... | 267.2 | 14.6 |
| ALL GROUPS..... | 34.0 | 42.7 |

Of the 38,182 establishments operating in 1955, 1,617 establishments in the periodical publishing industry were unclassifiable, leaving 36,565 establishments in the four categories of ownership. Individual ownership numbered 15,609 establishments, partnerships 4,977, incorporated companies 15,037 and co-operatives 942. The percentage distribution of the four categories of ownership is given in Table 13 for 1946-55.

13.—Percentage Distribution of Establishments in Manufacturing Industries classified by Type of Ownership, by Province and Industrial Group 1954 and 1955 with Totals for 1946-55.

| Year, Province and Industrial Group | Individual Ownership | Partner- ships | Incor- porated Companies | Co-opera- tives | Total |
|--------------------------------------|-------------------------|-------------------|--------------------------------|--------------------|--------------|
| | p.c. | p.c. | p.c. | p.c. | p.c. |
| 1946 (estimated)..... | 47.3 | 16.0 | 33.4 | 3.3 | 100.0 |
| 1947..... | 46.4 | 16.1 | 34.5 | 3.2 | 100.0 |
| 1948..... | 46.2 | 16.4 | 34.4 | 3.0 | 100.0 |
| 1949..... | 46.0 | 15.8 | 35.3 | 2.9 | 100.0 |
| 1950..... | 45.6 | 15.0 | 36.3 | 3.1 | 100.0 |
| 1951..... | 44.6 | 15.5 | 36.9 | 3.0 | 100.0 |
| 1952..... | 44.9 | 15.4 | 36.9 | 2.8 | 100.0 |
| 1953..... | 44.4 | 14.8 | 38.2 | 2.6 | 100.0 |
| 1954 | | | | | |
| Newfoundland..... | 50.7 | 31.8 | 17.4 | 0.1 | 100.0 |
| Prince Edward Island..... | 47.1 | 19.4 | 27.2 | 6.3 | 100.0 |
| Nova Scotia..... | 53.9 | 14.9 | 29.4 | 1.8 | 100.0 |
| New Brunswick..... | 53.8 | 12.3 | 31.2 | 2.7 | 100.0 |
| Quebec..... | 48.3 | 10.8 | 37.0 | 3.9 | 100.0 |
| Ontario..... | 37.5 | 14.3 | 46.4 | 1.8 | 100.0 |
| Manitoba..... | 39.7 | 15.3 | 43.4 | 1.6 | 100.0 |
| Saskatchewan..... | 54.7 | 17.5 | 23.1 | 4.7 | 100.0 |
| Alberta..... | 49.3 | 16.2 | 31.4 | 3.1 | 100.0 |
| British Columbia..... | 37.8 | 18.8 | 42.1 | 1.3 | 100.0 |
| Yukon and Northwest Territories..... | 45.2 | 19.4 | 35.4 | — | 100.0 |
| Canada, 1954..... | 43.6 | 14.3 | 39.5 | 2.6 | 100.0 |

13.—Percentage Distribution of Establishments in Manufacturing Industries classified by Type of Ownership, by Province and Industrial Group 1954 and 1955 with Totals for 1946-55—concluded.

| Year, Province and Industrial Group | Individual Ownership | Partnerships | Incorporated Companies | Co-operatives | Total |
|---|-------------------------|--------------|---------------------------|---------------|--------------|
| | p.c. | p.c. | p.c. | p.c. | p.c. |
| 1954—concluded | | | | | |
| Foods and beverages..... | 47.1 | 10.6 | 31.3 | 11.0 | 100.0 |
| Tobacco and tobacco products..... | 35.8 | 3.8 | 54.7 | 5.7 | 100.0 |
| Rubber products..... | 9.6 | 4.1 | 86.3 | — | 100.0 |
| Leather products..... | 27.8 | 12.0 | 60.2 | — | 100.0 |
| Textiles..... | 29.6 | 10.8 | 59.2 | 0.4 | 100.0 |
| Knitting mills..... | 14.1 | 12.5 | 73.4 | — | 100.0 |
| Clothing..... | 27.4 | 18.8 | 53.8 | — | 100.0 |
| Wood products..... | 61.5 | 18.7 | 19.6 | 0.2 | 100.0 |
| Paper products..... | 8.2 | 3.3 | 88.5 | — | 100.0 |
| Printing, publishing and allied trades ¹ | 44.1 | 15.3 | 40.1 | 0.5 | 100.0 |
| Iron and steel products..... | 24.7 | 12.7 | 62.5 | 0.1 | 100.0 |
| Transportation equipment..... | 28.9 | 10.0 | 61.1 | — | 100.0 |
| Non-ferrous metal products..... | 25.0 | 12.0 | 63.0 | — | 100.0 |
| Electrical apparatus and supplies..... | 8.8 | 4.8 | 86.4 | — | 100.0 |
| Non-metallic mineral products..... | 32.7 | 14.4 | 52.9 | — | 100.0 |
| Products of petroleum and coal..... | 1.7 | 0.9 | 95.7 | 1.7 | 100.0 |
| Chemicals and allied products..... | 16.8 | 5.4 | 77.5 | 0.3 | 100.0 |
| Miscellaneous manufacturing industries..... | 33.9 | 12.3 | 53.6 | 0.2 | 100.0 |
| 1955 | | | | | |
| Newfoundland..... | 47.5 | 32.8 | 19.5 | 0.2 | 100.0 |
| Prince Edward Island..... | 47.3 | 17.4 | 30.3 | 5.0 | 100.0 |
| Nova Scotia..... | 52.9 | 14.8 | 30.5 | 1.8 | 100.0 |
| New Brunswick..... | 53.9 | 10.9 | 32.5 | 2.7 | 100.0 |
| Quebec..... | 47.4 | 10.5 | 38.2 | 3.9 | 100.0 |
| Ontario..... | 36.9 | 13.3 | 47.8 | 2.0 | 100.0 |
| Manitoba..... | 38.9 | 14.9 | 44.6 | 1.6 | 100.0 |
| Saskatchewan..... | 53.1 | 16.2 | 25.7 | 5.0 | 100.0 |
| Alberta..... | 47.6 | 16.9 | 32.4 | 3.1 | 100.0 |
| British Columbia..... | 36.3 | 17.0 | 45.5 | 1.2 | 100.0 |
| Yukon and Northwest Territories..... | 30.8 | 19.2 | 50.0 | — | 100.0 |
| Canada, 1955..... | 42.7 | 13.6 | 41.1 | 2.6 | 100.0 |
| Foods and beverages..... | 46.4 | 10.6 | 32.1 | 10.9 | 100.0 |
| Tobacco and tobacco products..... | 35.7 | 1.8 | 58.9 | 3.6 | 100.0 |
| Rubber products..... | 14.6 | 3.7 | 81.7 | — | 100.0 |
| Leather products..... | 26.6 | 11.2 | 62.2 | — | 100.0 |
| Textiles..... | 30.0 | 11.2 | 58.5 | 0.3 | 100.0 |
| Knitting mills..... | 15.2 | 10.8 | 74.0 | — | 100.0 |
| Clothing..... | 27.1 | 17.0 | 55.9 | — | 100.0 |
| Wood products..... | 60.1 | 18.1 | 21.6 | 0.2 | 100.0 |
| Paper products..... | 7.9 | 3.6 | 88.5 | — | 100.0 |
| Printing, publishing and allied trades ¹ | 43.6 | 15.1 | 40.8 | 0.5 | 100.0 |
| Iron and steel products..... | 24.8 | 11.6 | 63.5 | 0.1 | 100.0 |
| Transportation equipment..... | 27.9 | 10.1 | 62.0 | — | 100.0 |
| Non-ferrous metal products..... | 24.8 | 11.0 | 64.2 | — | 100.0 |
| Electrical apparatus and supplies..... | 7.7 | 3.4 | 88.9 | — | 100.0 |
| Non-metallic mineral products..... | 32.2 | 13.2 | 54.5 | 0.1 | 100.0 |
| Products of petroleum and coal..... | 1.9 | — | 96.2 | 1.9 | 100.0 |
| Chemicals and allied products..... | 16.7 | 4.4 | 78.6 | 0.3 | 100.0 |
| Miscellaneous manufacturing industries..... | 35.6 | 12.2 | 52.0 | 0.2 | 100.0 |

¹ Four main categories of ownership only; the non-classifiable group is not included.

The establishments operating under individual ownership are not as important from the point of view of employment provided as their large numbers would indicate. According to Tables 14 and 15, these establishments, which comprise 43 p.c. of the total, had only 5 p.c. of the total employees. Partnerships accounted for 14 p.c. of the number of establishments and 3 p.c. of the total employees. Incorporated companies with 41 p.c. of the number of establishments had 91 p.c. of the employees. Co-operatives with 3 p.c. of the number had only 1 p.c. of the employees.

On the basis of employment provided, incorporated companies are, by a wide margin, the most important factor in the employment field. In the petroleum and coal products group practically 100 p.c. of the employees were reported by such companies. Incorporated companies in the electrical apparatus and supplies, rubber, paper, and transportation equipment groups had 99 p.c. of the employees; chemicals, tobacco and non-ferrous metal products groups had 98 p.c.; iron and steel products 96 p.c.; textiles 95 p.c.; knitting mills 94 p.c.; non-metallic mineral products 93 p.c.; leather products 90 p.c.; miscellaneous industries 88 p.c.; printing, publishing and allied trades 86 p.c.; clothing 83 p.c.; and foods and beverages 82 p.c. Companies in the wood products group, with 73 p.c., reported the lowest proportion of total employment.

14.—Percentage Distribution of Employment in the Manufacturing Industries classified by Type of Ownership, by Province and Industrial Group 1954 and 1955 with Totals for 1946-55.

| Year, Province and Industrial Group | Individual Ownership | Partner- ships | Incor- porated Companies | Co-opera- tives | Total |
|---|-------------------------|-------------------|--------------------------------|--------------------|--------------|
| | p.c. | p.c. | p.c. | p.c. | p.c. |
| 1946 (estimated)..... | 7.9 | 4.7 | 86.5 | 0.9 | 100.0 |
| 1947..... | 7.5 | 4.5 | 87.0 | 1.0 | 100.0 |
| 1948..... | 7.1 | 4.4 | 87.5 | 1.0 | 100.0 |
| 1949..... | 6.8 | 4.2 | 88.0 | 1.0 | 100.0 |
| 1950..... | 6.3 | 3.9 | 88.8 | 1.0 | 100.0 |
| 1951..... | 6.1 | 3.7 | 89.3 | 0.9 | 100.0 |
| 1952..... | 5.9 | 3.6 | 89.6 | 0.9 | 100.0 |
| 1953..... | 5.7 | 3.3 | 90.2 | 0.8 | 100.0 |
| 1954 | | | | | |
| Newfoundland..... | 7.8 | 6.5 | 85.7 | — | 100.0 |
| Prince Edward Island..... | 18.9 | 11.3 | 64.6 | 5.2 | 100.0 |
| Nova Scotia..... | 9.9 | 3.7 | 85.5 | 0.9 | 100.0 |
| New Brunswick..... | 9.4 | 3.6 | 85.3 | 1.7 | 100.0 |
| Quebec..... | 6.7 | 3.3 | 89.2 | 0.8 | 100.0 |
| Ontario..... | 3.6 | 2.6 | 93.5 | 0.3 | 100.0 |
| Manitoba..... | 5.6 | 3.8 | 89.7 | 0.9 | 100.0 |
| Saskatchewan..... | 12.1 | 6.3 | 70.6 | 11.0 | 100.0 |
| Alberta..... | 9.9 | 6.6 | 81.2 | 2.3 | 100.0 |
| British Columbia..... | 5.7 | 4.6 | 87.7 | 2.0 | 100.0 |
| Yukon and Northwest Territories..... | 21.4 | 12.7 | 65.9 | — | 100.0 |
| Canada, 1954..... | 5.4 | 3.3 | 90.5 | 0.8 | 100.0 |
| Foods and beverages..... | 9.7 | 3.7 | 82.0 | 4.6 | 100.0 |
| Tobacco and tobacco products..... | 1.3 | — | 96.1 | 2.6 | 100.0 |
| Rubber products..... | 0.2 | 0.5 | 99.3 | — | 100.0 |
| Leather products..... | 5.9 | 5.0 | 89.1 | — | 100.0 |
| Textiles..... | 2.9 | 1.9 | 95.1 | 0.1 | 100.0 |
| Knitting mills..... | 1.6 | 5.0 | 93.4 | — | 100.0 |
| Clothing..... | 8.7 | 9.3 | 82.0 | — | 100.0 |
| Wood products..... | 18.5 | 9.2 | 72.0 | 0.3 | 100.0 |
| Paper products..... | 0.4 | 0.3 | 99.3 | — | 100.0 |
| Printing, publishing and allied industries ¹ | 8.1 | 4.5 | 86.2 | 1.2 | 100.0 |
| Iron and steel products..... | 2.2 | 1.7 | 95.9 | 0.2 | 100.0 |
| Transportation equipment..... | 0.5 | 0.3 | 99.2 | — | 100.0 |
| Non-ferrous metal products..... | 1.5 | 1.0 | 97.5 | — | 100.0 |
| Electrical apparatus and supplies..... | 0.2 | 0.3 | 99.5 | — | 100.0 |
| Non-metallic mineral products..... | 5.1 | 3.4 | 91.5 | — | 100.0 |
| Products of petroleum and coal..... | — | — | 100.0 | — | 100.0 |
| Chemicals and allied products..... | 1.1 | 0.9 | 97.7 | 0.3 | 100.0 |
| Miscellaneous manufacturing industries..... | 7.1 | 4.0 | 88.7 | 0.2 | 100.0 |

¹ Four main categories of ownership only; the non-classifiable group is not included.

14.—Percentage Distribution of Employment in the Manufacturing Industries classified by Type of Ownership, by Province and Industrial Group 1954 and 1955 with Totals for 1946-55—concluded.

| Year, Province and Industrial Group | Individual Ownership | Partnerships | Incorporated Companies | Co-operatives | Total |
|---|----------------------|--------------|------------------------|---------------|--------------|
| | p.c. | p.c. | p.c. | p.c. | p.c. |
| 1955 | | | | | |
| Newfoundland..... | 6.6 | 6.1 | 87.1 | 0.2 | 100.0 |
| Prince Edward Island..... | 17.0 | 11.1 | 67.6 | 4.3 | 100.0 |
| Nova Scotia..... | 10.6 | 3.8 | 84.5 | 1.1 | 100.0 |
| New Brunswick..... | 10.1 | 2.8 | 85.4 | 1.7 | 100.0 |
| Quebec..... | 6.4 | 3.0 | 89.8 | 0.8 | 100.0 |
| Ontario..... | 3.4 | 2.4 | 93.9 | 0.3 | 100.0 |
| Manitoba..... | 5.2 | 3.6 | 90.3 | 0.9 | 100.0 |
| Saskatchewan..... | 11.3 | 5.9 | 71.5 | 11.3 | 100.0 |
| Alberta..... | 9.4 | 5.5 | 82.8 | 2.3 | 100.0 |
| British Columbia..... | 5.4 | 4.1 | 88.6 | 1.9 | 100.0 |
| Yukon and Northwest Territories..... | 13.5 | 11.8 | 74.7 | — | 100.0 |
| Canada, 1955..... | 5.2 | 2.9 | 91.0 | 0.9 | 100.0 |
| Foods and beverages..... | 9.3 | 3.5 | 82.4 | 4.8 | 100.0 |
| Tobacco and tobacco products..... | 1.2 | — | 98.8 | — | 100.0 |
| Rubber products..... | 0.4 | 0.4 | 99.2 | — | 100.0 |
| Leather products..... | 5.5 | 3.9 | 90.6 | — | 100.0 |
| Textiles..... | 2.6 | 1.8 | 95.5 | 0.1 | 100.0 |
| Knitting mills..... | 1.4 | 4.3 | 94.3 | — | 100.0 |
| Clothing..... | 8.3 | 8.5 | 83.2 | — | 100.0 |
| Wood products..... | 17.4 | 8.5 | 73.7 | 0.4 | 100.0 |
| Paper products..... | 0.3 | 0.3 | 99.4 | — | 100.0 |
| Printing, publishing and allied industries ¹ | 7.8 | 4.4 | 86.6 | 1.2 | 100.0 |
| Iron and steel products..... | 2.1 | 1.6 | 96.3 | — | 100.0 |
| Transportation equipment..... | 0.5 | 0.3 | 99.2 | — | 100.0 |
| Non-ferrous metal products..... | 1.4 | 0.9 | 97.7 | — | 100.0 |
| Electrical apparatus and supplies..... | 0.2 | 0.2 | 99.6 | — | 100.0 |
| Non-metallic mineral products..... | 4.2 | 3.0 | 92.8 | — | 100.0 |
| Products of petroleum and coal..... | — | — | 100.0 | — | 100.0 |
| Chemicals and allied products..... | 1.0 | 0.5 | 98.2 | 0.3 | 100.0 |
| Miscellaneous manufacturing industries..... | 7.7 | 4.0 | 88.1 | 0.2 | 100.0 |

¹ Four main categories of ownership only; the non-classifiable group is not included.

15.—Percentage Distribution of Employment in the Forty Leading Industries by Type of Ownership 1954 and 1955

| Year and Industry | Individual Ownership | Partnerships | Incorporated Companies | Co-operatives | Total |
|---|----------------------|--------------|------------------------|---------------|-------|
| | p.c. | p.c. | p.c. | p.c. | p.c. |
| 1954 | | | | | |
| 1 Pulp and paper..... | — | — | 100.0 | — | 100.0 |
| 2 Non-ferrous metal smelting and refining..... | — | — | 100.0 | — | 100.0 |
| 3 Petroleum products..... | — | — | 100.0 | — | 100.0 |
| 4 Slaughtering and meat packing..... | 1.0 | 1.7 | 95.5 | 1.8 | 100.0 |
| 5 Motor vehicles..... | — | — | 100.0 | — | 100.0 |
| 6 Sawmills..... | 27.5 | 12.6 | 59.5 | — | 100.0 |
| 7 Butter and cheese..... | 10.3 | 3.7 | 63.4 | 22.6 | 100.0 |
| 8 Primary iron and steel..... | — | — | 100.0 | — | 100.0 |
| 9 Aircraft and parts..... | 0.1 | — | 99.9 | — | 100.0 |
| 10 Miscellaneous food preparations..... | 5.1 | 1.4 | 93.5 | — | 100.0 |
| 11 Railway rolling stock..... | — | — | 100.0 | — | 100.0 |
| 12 Bread and other bakery products..... | 26.1 | 7.5 | 66.0 | 0.4 | 100.0 |
| 13 Miscellaneous electrical apparatus and supplies..... | 0.2 | 0.5 | 99.3 | — | 100.0 |
| 14 Rubber goods, including footwear..... | 0.2 | 0.5 | 99.3 | — | 100.0 |
| 15 Printing and publishing..... | 4.6 | 2.1 | 92.1 | 1.2 | 100.0 |

15.—Percentage Distribution of Employment in the Forty Leading Industries by Type of Ownership 1954 and 1955—concluded

| Year and Industry | | Individual Ownership | Partnerships | Incorporated Companies | Co-operatives | Total |
|-----------------------|--|----------------------|--------------|------------------------|---------------|-------|
| | | p.c. | p.c. | p.c. | p.c. | p.c. |
| 1954—concluded | | | | | | |
| 16 | Clothing, men's factory..... | 3.8 | 7.6 | 88.6 | — | 100.0 |
| 17 | Motor vehicle parts..... | 0.8 | 0.5 | 98.7 | — | 100.0 |
| 18 | Machinery, industrial..... | 1.4 | 0.7 | 97.9 | — | 100.0 |
| 19 | Furniture..... | 12.0 | 7.8 | 80.2 | — | 100.0 |
| 20 | Sheet metal products..... | 1.9 | 1.7 | 96.4 | — | 100.0 |
| 21 | Flour mills..... | 1.9 | 1.8 | 96.3 | — | 100.0 |
| 22 | Telecommunication equipment..... | 0.3 | 0.3 | 99.4 | — | 100.0 |
| 23 | Clothing, women's factory..... | 6.0 | 6.8 | 87.2 | — | 100.0 |
| 24 | Fruit and vegetable preparations..... | 4.6 | 2.5 | 90.2 | 2.7 | 100.0 |
| 25 | Machinery, heavy electrical..... | — | — | 100.0 | — | 100.0 |
| 26 | Miscellaneous chemical products..... | 1.4 | 0.3 | 98.3 | — | 100.0 |
| 27 | Sash, door and planing mills..... | 16.8 | 8.4 | 74.6 | 0.2 | 100.0 |
| 28 | Breweries..... | — | — | 100.0 | — | 100.0 |
| 29 | Cotton yarn and cloth..... | 0.1 | — | 99.9 | — | 100.0 |
| 30 | Boxes and bags, paper..... | 1.1 | 1.4 | 97.5 | — | 100.0 |
| 31 | Feeds, stock and poultry, prepared..... | 15.6 | 6.9 | 59.0 | 18.5 | 100.0 |
| 32 | Printing and bookbinding..... | 13.6 | 7.5 | 77.2 | 1.7 | 100.0 |
| 33 | Brass and copper products..... | 1.7 | 2.2 | 96.1 | — | 100.0 |
| 34 | Shipbuilding..... | 0.3 | 0.2 | 99.5 | — | 100.0 |
| 35 | Bridge building and structural steel..... | — | — | 100.0 | — | 100.0 |
| 36 | Miscellaneous paper goods..... | 1.6 | 0.8 | 97.6 | — | 100.0 |
| 37 | Fish processing..... | 8.4 | 2.9 | 82.2 | 6.5 | 100.0 |
| 38 | Tobacco, cigars and cigarettes..... | 1.7 | — | 98.3 | — | 100.0 |
| 39 | Acids, alkalies and salts..... | — | — | 100.0 | — | 100.0 |
| 40 | Castings, iron..... | 2.2 | 3.0 | 94.8 | — | 100.0 |
| 1955 | | | | | | |
| 1 | Pulp and paper..... | — | — | 100.0 | — | 100.0 |
| 2 | Non-ferrous metal smelting and refining..... | — | — | 100.0 | — | 100.0 |
| 3 | Petroleum products..... | — | — | 100.0 | — | 100.0 |
| 4 | Motor vehicles..... | — | — | 100.0 | — | 100.0 |
| 5 | Slaughtering and meat packing..... | 1.0 | 1.1 | 96.0 | 1.9 | 100.0 |
| 6 | Sawmills..... | 25.8 | 11.9 | 61.7 | 0.6 | 100.0 |
| 7 | Primary iron and steel..... | — | — | 100.0 | — | 100.0 |
| 8 | Butter and cheese..... | 9.6 | 3.6 | 63.7 | 23.1 | 100.0 |
| 9 | Aircraft and parts..... | 0.1 | — | 99.9 | — | 100.0 |
| 10 | Miscellaneous electrical apparatus and supplies..... | 0.2 | 0.3 | 99.5 | — | 100.0 |
| 11 | Rubber goods, including footwear..... | 0.4 | 0.3 | 99.3 | — | 100.0 |
| 12 | Miscellaneous food preparations..... | 2.8 | 1.0 | 96.2 | — | 100.0 |
| 13 | Bread and other bakery products..... | 25.4 | 7.0 | 67.2 | 0.4 | 100.0 |
| 14 | Motor vehicle parts..... | 0.8 | 0.5 | 98.7 | — | 100.0 |
| 15 | Printing and publishing..... | 4.4 | 1.9 | 92.5 | 1.2 | 100.0 |
| 16 | Telecommunication and equipment..... | 0.3 | 0.2 | 99.5 | — | 100.0 |
| 17 | Furniture..... | 12.0 | 7.2 | 80.8 | — | 100.0 |
| 18 | Sheet metal products..... | 1.6 | 1.4 | 97.0 | — | 100.0 |
| 19 | Machinery, industrial..... | 1.1 | 0.4 | 98.5 | — | 100.0 |
| 20 | Clothing, men's factory..... | 3.5 | 7.6 | 88.9 | — | 100.0 |
| 21 | Railway rolling-stock..... | — | — | 100.0 | — | 100.0 |
| 22 | Sash, door and planing mills..... | 16.4 | 7.7 | 75.9 | — | 100.0 |
| 23 | Fruit and vegetable preparations..... | 4.4 | 2.9 | 89.3 | 3.4 | 100.0 |
| 24 | Cotton yarn and cloth..... | 0.1 | — | 99.9 | — | 100.0 |
| 25 | Clothing, women's factory..... | 5.2 | 5.8 | 89.0 | — | 100.0 |
| 26 | Flour mills..... | 1.0 | 1.9 | 97.1 | — | 100.0 |
| 27 | Miscellaneous chemical products..... | 1.7 | 0.3 | 98.0 | — | 100.0 |
| 28 | Brass and copper products..... | 1.8 | 1.6 | 96.6 | — | 100.0 |
| 29 | Boxes and bags, paper..... | 1.1 | 1.3 | 97.6 | — | 100.0 |
| 30 | Breweries..... | — | — | 100.0 | — | 100.0 |
| 31 | Printing and bookbinding..... | 13.4 | 7.7 | 77.3 | 1.6 | 100.0 |
| 32 | Machinery, heavy electrical..... | 0.1 | — | 99.9 | — | 100.0 |
| 33 | Feeds, stock and poultry, prepared..... | 16.2 | 6.6 | 58.0 | 19.2 | 100.0 |
| 34 | Castings, iron..... | 2.3 | 1.9 | 95.8 | — | 100.0 |
| 35 | Acids, alkalies and salts..... | — | — | 100.0 | — | 100.0 |
| 36 | Miscellaneous paper goods..... | 1.0 | 0.8 | 98.2 | — | 100.0 |
| 37 | Tobacco, cigars and cigarettes..... | 1.5 | — | 98.5 | — | 100.0 |
| 38 | Fish processing..... | 8.6 | 2.7 | 82.6 | 6.1 | 100.0 |
| 39 | Synthetic textiles and silk..... | — | — | 100.0 | — | 100.0 |
| 40 | Bridge building and structural steel..... | — | — | 100.0 | — | 100.0 |

Subsection 4.—Leading Manufacturing Industries

The rank of the ten leading industries in 1955, from the standpoint of selling value of factory shipments, is compared with their respective ranks in significant years since 1929 in the following statement:—

| Industry | 1929 | 1933 | 1939 | Rank in— | | 1953 | 1954 | 1955 |
|--|------|------|------|----------|------|------|------|------|
| | | | | 1944 | 1949 | | | |
| Pulp and paper..... | 1 | 1 | 2 | 5 | 1 | 1 | 1 | 1 |
| Non-ferrous metal smelting and refining.... | 9 | 2 | 1 | 2 | 3 | 2 | 2 | 2 |
| Petroleum products..... | 10 | 6 | 6 | 14 | 5 | 5 | 3 | 3 |
| Motor vehicles..... | 4 | 11 | 5 | 7 | 4 | 3 | 5 | 4 |
| Slaughtering and meat packing..... | 2 | 3 | 3 | 1 | 2 | 4 | 4 | 5 |
| Sawmills..... | 5 | 14 | 8 | 11 | 6 | 6 | 6 | 6 |
| Primary iron and steel..... | 16 | 31 | 11 | 13 | 8 | 7 | 8 | 7 |
| Butter and cheese..... | 6 | 5 | 4 | 10 | 7 | 9 | 7 | 8 |
| Aircraft and parts..... | 1 | 1 | 1 | 4 | 1 | 8 | 9 | 9 |
| Miscellaneous electrical apparatus and supplies..... | 2 | 2 | 2 | 2 | 2 | 17 | 13 | 10 |

¹ Did not rank among the forty leading industries in that year.
1953 and later years.

² Classification not comparable with

A prominent feature of Canadian manufacturing development during the past 25 years has been the rapid growth of non-ferrous metal smelting. This industry, based upon the rich base-metal resources of the country, has taken its place among the leading manufactures along with the industries based upon forest and livestock and other agricultural resources. During World War II the industries engaged in producing the equipment needed by the Armed Forces, such as shipbuilding, aircraft, automobiles, miscellaneous chemical products, and primary iron and steel, advanced to higher positions. When the War ended, the industries engaged in the production of consumer goods bettered their positions.

During the past few years the ranking has changed little. Petroleum products continue to move closer to the top, being in third place in 1955 as compared with fifth in 1953. Miscellaneous electrical apparatus and supplies moved up from seventeenth place to tenth in the same comparison.

16.—Principal Statistics of the Forty Leading Manufacturing Industries ranked according to the Value of Factory Shipments 1954 and 1955

| Year and Industry | Estab-lish-ments | Em-ployees | Earnings | Cost at Plant of Materials Used | Value Added by Manufacture | Selling Value of Factory Shipments |
|---|------------------|------------|-------------|---------------------------------|----------------------------|------------------------------------|
| 1954 | No. | No. | \$ | \$ | \$ | \$ |
| 1 Pulp and paper..... | 125 | 60,837 | 252,598,383 | 515,257,595 | 641,410,070 | 1,241,558,451 |
| 2 Non-ferrous metal smelting and refining..... | 22 | 26,048 | 102,595,970 | 515,315,655 | 352,037,956 | 922,578,998 |
| 3 Petroleum products..... | 61 | 12,476 | 52,316,208 | 568,541,677 | 309,795,241 | 909,252,514 |
| 4 Slaughtering and meat packing.. | 154 | 22,999 | 78,699,090 | 674,151,921 | 157,683,565 | 837,508,480 |
| 5 Motor vehicles..... | 20 | 27,949 | 106,062,439 | 477,309,375 | 176,473,282 | 666,286,542 |
| 6 Sawmills..... | 7,696 | 57,010 | 139,571,531 | 301,118,370 | 263,629,457 | 572,186,498 |
| 7 Butter and cheese..... | 1,467 | 20,599 | 55,021,826 | 304,836,171 | 99,403,809 | 412,205,330 |
| 8 Primary iron and steel..... | 51 | 28,861 | 108,817,430 | 145,110,350 | 217,487,185 | 383,154,196 |
| 9 Aircraft and parts..... | 47 | 35,095 | 135,863,490 | 158,893,485 | 181,381,957 | 343,010,830 |
| 10 Miscellaneous food preparations. | 333 | 10,131 | 28,462,266 | 213,194,908 | 90,418,116 | 306,451,294 |
| 11 Railway rolling-stock..... | 36 | 29,214 | 96,862,444 | 162,219,587 | 116,736,335 | 283,398,567 |
| 12 Bread and other bakery products..... | 2,584 | 33,883 | 83,804,862 | 131,119,614 | 139,859,357 | 280,207,889 |
| 13 Miscellaneous electrical apparatus and supplies..... | 157 | 23,624 | 82,252,578 | 123,156,174 | 145,639,347 | 267,574,423 |
| 14 Rubber goods (including footwear) | 73 | 20,894 | 67,476,405 | 106,501,858 | 149,073,979 | 264,184,787 |
| 15 Printing and publishing..... | 800 | 29,401 | 100,474,627 | 71,646,945 | 182,853,728 | 256,699,637 |
| 16 Clothing, men's factory..... | 582 | 31,886 | 67,578,714 | 132,032,166 | 106,794,010 | 240,390,285 |
| 17 Motor vehicle parts..... | 180 | 18,363 | 65,540,443 | 122,691,526 | 112,253,910 | 239,108,407 |
| 18 Machinery, industrial..... | 312 | 22,846 | 80,489,646 | 83,932,026 | 147,169,756 | 233,670,284 |
| 19 Furniture..... | 1,775 | 29,876 | 77,605,556 | 108,912,963 | 121,987,089 | 232,704,198 |
| 20 Sheet metal products..... | 343 | 18,049 | 61,444,775 | 118,832,538 | 112,234,492 | 232,686,878 |
| 21 Flour mills..... | 85 | 4,934 | 15,436,871 | 195,322,299 | 35,031,653 | 232,363,041 |
| 22 Telecommunication equipment.. | 120 | 18,020 | 56,392,238 | 124,696,952 | 104,044,924 | 228,511,630 |
| 23 Clothing, women's factory..... | 808 | 27,343 | 61,448,428 | 115,988,150 | 102,520,868 | 218,614,357 |
| 24 Fruit and vegetable preparations | 453 | 15,815 | 34,714,828 | 131,554,963 | 82,838,842 | 215,030,451 |
| 25 Machinery, heavy electrical.... | 63 | 22,220 | 83,108,479 | 70,205,741 | 127,755,011 | 202,150,926 |
| 26 Miscellaneous chemicals, n.e.s.. | 258 | 13,483 | 43,449,377 | 101,390,267 | 91,475,977 | 201,340,257 |
| 27 Sash, door and planing mills.... | 1,852 | 19,386 | 47,398,127 | 119,759,450 | 77,231,041 | 200,200,315 |

16.—Principal Statistics of the Forty Leading Manufacturing Industries ranked according to the Value of Factory Shipments 1954 and 1955—concluded

| Year and Industry | Estab- lish- ments | Em- ployees | Earnings | Cost at Plant of Materials Used | Value Added by Manufacture | Selling Value of Factory Shipments |
|--|--------------------------|------------------|----------------------|---------------------------------------|----------------------------------|--|
| | No. | No. | \$ | \$ | \$ | \$ |
| 1954—concluded | | | | | | |
| 28 Breweries..... | 62 | 8,541 | 33,422,844 | 47,590,063 | 147,835,626 | 198,390,169 |
| 29 Cotton yarn and cloth..... | 50 | 19,865 | 49,447,295 | 119,204,720 | 70,729,737 | 194,691,131 |
| 30 Boxes and bags, paper..... | 204 | 13,883 | 40,632,423 | 116,589,711 | 77,323,737 | 194,242,948 |
| 31 Feeds, stock and poultry, pre- pared..... | 678 | 6,107 | 15,345,800 | 152,472,708 | 35,646,991 | 190,132,599 |
| 32 Printing and bookbinding..... | 1,765 | 24,207 | 72,212,660 | 67,106,324 | 118,661,593 | 186,897,741 |
| 33 Brass and copper products..... | 156 | 8,530 | 30,131,125 | 99,886,257 | 56,179,619 | 157,907,751 |
| 34 Shipbuilding..... | 76 | 19,356 | 65,256,543 | 56,259,981 | 98,572,656 | 156,606,890 |
| 35 Bridge building and structural steel..... | 43 | 10,881 | 42,167,982 | 67,131,407 | 87,577,222 | 156,102,978 |
| 36 Miscellaneous paper goods..... | 212 | 10,001 | 29,880,119 | 89,823,366 | 65,488,700 | 155,429,948 |
| 37 Fish processing..... | 586 | 14,202 | 26,001,277 | 95,632,683 | 55,219,381 | 153,456,535 |
| 38 Tobacco, cigars and cigarettes..... | 39 | 7,418 | 24,000,407 | 79,009,327 | 72,327,224 | 152,033,653 |
| 39 Acids, alkalies and salts..... | 43 | 8,408 | 33,425,864 | 49,400,551 | 79,376,289 | 142,001,601 |
| 40 Castings, iron..... | 202 | 13,748 | 47,535,297 | 61,661,101 | 76,670,172 | 139,904,793 |
| Totals, Leading Industries. | 24,573 | 846,359 | 2,694,946,667 | 6,995,460,925 | 5,486,829,904 | 12,800,827,932 |
| Totals, All Industries..... | 38,028 | 1,267,966 | 3,896,687,691 | 9,241,857,554 | 7,902,124,137 | 17,554,527,504 |
| Percentage of leading industries to all industries..... | 64.6 | 66.8 | 69.2 | 75.7 | 69.4 | 72.9 |
| 1955 | | | | | | |
| 1 Pulp and paper..... | 125 | 62,205 | 265,298,119 | 546,079,192 | 689,818,173 | 1,326,938,138 |
| 2 Non-ferrous metal smelting and refining..... | 24 | 28,606 | 118,189,378 | 710,762,890 | 443,805,081 | 1,211,716,481 |
| 3 Petroleum products..... | 61 | 13,340 | 57,892,387 | 642,872,134 | 373,368,531 | 1,048,834,455 |
| 4 Motor vehicles..... | 15 | 33,429 | 134,661,758 | 631,181,084 | 269,601,907 | 907,410,923 |
| 5 Slaughtering and meat packing..... | 153 | 23,655 | 83,006,946 | 627,479,460 | 178,578,637 | 809,467,773 |
| 6 Sawmills..... | 7,333 | 58,586 | 152,556,819 | 338,870,204 | 296,940,188 | 644,482,990 |
| 7 Primary iron and steel..... | 50 | 32,507 | 136,879,403 | 212,288,266 | 291,793,126 | 526,318,453 |
| 8 Butter and cheese..... | 1,423 | 20,444 | 56,670,536 | 315,926,042 | 103,069,896 | 427,092,300 |
| 9 Aircraft and parts..... | 52 | 33,036 | 130,269,009 | 140,831,164 | 208,800,111 | 354,314,837 |
| 10 Miscellaneous electrical appar- atus and supplies..... | 157 | 23,292 | 82,125,157 | 158,683,158 | 159,116,892 | 325,061,144 |
| 11 Rubber goods, including footwear refining..... | 82 | 21,913 | 73,774,964 | 137,074,770 | 187,029,017 | 322,412,379 |
| 12 Miscellaneous food preparations..... | 304 | 9,426 | 27,861,731 | 209,020,810 | 89,950,469 | 303,751,181 |
| 13 Bread and other bakery products..... | 2,618 | 34,416 | 87,760,004 | 133,299,250 | 146,133,537 | 289,019,294 |
| 14 Motor vehicle parts..... | 188 | 18,996 | 74,581,239 | 149,004,157 | 130,778,716 | 285,070,612 |
| 15 Printing and publishing..... | 789 | 29,855 | 107,844,086 | 75,020,033 | 197,778,684 | 275,159,495 |
| 16 Telecommunication equipment..... | 126 | 19,036 | 61,741,290 | 155,719,565 | 112,579,145 | 263,420,279 |
| 17 Furniture..... | 1,822 | 30,623 | 84,242,386 | 125,400,624 | 132,521,922 | 261,551,101 |
| 18 Sheet metal products..... | 361 | 19,080 | 66,662,817 | 138,211,294 | 121,016,972 | 260,167,480 |
| 19 Machinery, industrial..... | 321 | 23,838 | 86,529,705 | 102,665,897 | 146,908,572 | 252,944,378 |
| 20 Clothing, men's factory..... | 570 | 31,445 | 68,809,295 | 137,857,666 | 113,367,324 | 250,462,315 |
| 21 Railway rolling-stock..... | 32 | 25,400 | 86,257,623 | 139,475,062 | 102,324,180 | 245,739,330 |
| 22 Sash, door and planing mills..... | 1,837 | 20,239 | 52,185,678 | 148,364,225 | 86,268,605 | 238,281,804 |
| 23 Fruit and vegetable preparations..... | 459 | 17,151 | 38,939,576 | 143,958,545 | 97,208,879 | 234,075,326 |
| 24 Cotton yarn and cloth..... | 50 | 21,537 | 56,411,050 | 149,561,429 | 77,291,220 | 229,684,041 |
| 25 Clothing, women's factory..... | 750 | 26,925 | 61,455,380 | 121,858,177 | 103,911,069 | 226,347,078 |
| 26 Flour mills..... | 77 | 4,853 | 15,478,817 | 185,004,008 | 35,538,808 | 221,894,538 |
| 27 Miscellaneous chemical products..... | 261 | 12,698 | 43,943,157 | 112,736,255 | 96,659,281 | 218,032,961 |
| 28 Brass and copper products..... | 157 | 8,864 | 32,274,041 | 150,395,034 | 64,086,451 | 216,500,000 |
| 29 Boxes and bags, paper..... | 208 | 14,613 | 43,990,063 | 129,064,316 | 83,249,425 | 213,458,941 |
| 30 Breweries..... | 58 | 8,368 | 34,387,685 | 48,677,904 | 158,370,826 | 210,571,853 |
| 31 Printing and bookbinding..... | 1,813 | 24,520 | 76,452,537 | 71,517,754 | 122,560,535 | 200,961,881 |
| 32 Machinery, heavy electrical..... | 70 | 22,216 | 81,904,903 | 75,020,917 | 120,703,089 | 198,408,390 |
| 33 Feeds, stock and poultry..... | 769 | 6,376 | 16,659,900 | 147,732,071 | 38,987,055 | 189,799,395 |
| 34 Castings, iron..... | 201 | 15,266 | 55,273,998 | 84,452,041 | 97,595,101 | 182,906,534 |
| 35 Acids, alkalies and salts..... | 45 | 8,597 | 35,547,851 | 61,686,514 | 95,023,999 | 172,255,750 |
| 36 Miscellaneous paper goods..... | 219 | 10,384 | 31,854,836 | 95,278,910 | 75,228,134 | 171,945,691 |
| 37 Tobacco, cigars and cigarettes..... | 40 | 7,470 | 25,118,846 | 84,438,935 | 78,959,320 | 162,382,718 |
| 38 Fish processing..... | 574 | 14,626 | 26,320,382 | 101,921,132 | 55,304,122 | 159,888,395 |
| 39 Synthetic textiles and silk..... | 48 | 15,408 | 46,927,250 | 69,895,625 | 86,031,246 | 159,233,708 |
| 40 Bridge and structural steel work..... | 49 | 11,863 | 46,557,144 | 79,731,908 | 76,453,347 | 157,712,340 |
| Totals, Leading Industries.. | 24,291 | 866,102 | 2,865,297,746 | 7,889,018,422 | 6,149,711,595 | 14,355,677,180 |
| Totals, All Industries..... | 38,182 | 1,298,461 | 4,142,409,534 | 10,338,202,165 | 8,753,450,496 | 19,513,933,811 |
| Percentage of leading industries to all industries..... | 63.6 | 66.7 | 69.2 | 76.3 | 70.2 | 73.6 |

Section 3.—Principal Factors in Manufacturing Production

Subsection 1.—Earnings in Manufacturing Industries*

In 1955 the 38,182 establishments covered employed 287,469 supervisory and office employees and 1,010,992 production workers, a total of 1,298,461 persons. Out of every 1,000 persons employed in manufacturing, 221 were classed as supervisory and office employees and 779 as production workers; the former earned 28 p.c. and the latter 72 p.c. of the total amount paid out as remuneration for services.

A notable feature during the past few years has been the reduction in the disparity between average annual earnings of supervisory and office employees and production workers. In 1939 average annual earnings of production workers were only 56 p.c. of that paid to supervisory and office workers, in 1943 the percentage rose to 76, declined to 69 in 1947 and rose to 74 in 1955. This tendency towards equalization is attributed, in part, to the controls adopted by the Government during the war years which stabilized earnings of supervisory and office workers more so than the earnings of production workers. The increase in average earnings of production workers was also influenced by the fact that large numbers were employed in the highly paid iron and steel industries and by the increase in the number of hours worked, some at overtime pay.

17.—Annual Earnings of Employees in Manufacturing Industries, Significant Years 1917-55

NOTE.—The averages of earnings for the years 1933-45 are strictly comparable with those for the years up to 1924 but not with those for the intervening years. The figures for the latest years—as for the earlier—represent the earnings for complete man-years of work, with no allowance for periods of unemployment. The difference amounts to about 3 or 4 p.c. in the total figures and affects chiefly the seasonal industries.

| Year | Supervisory and Office Employees | | | | Production Workers | | | |
|-----------|----------------------------------|--------|----------------|-------------------------|--------------------|---------|----------------|-------------------------|
| | Male | Female | Total Earnings | Average Annual Earnings | Male | Female | Total Earnings | Average Annual Earnings |
| | No. | No. | \$ | \$ | No. | No. | \$ | \$ |
| 1917..... | 64,918 | | 85,353,667 | 1,315 | 541,605 | | 412,448,177 | 762 |
| 1920..... | 78,334 | | 141,837,361 | 1,811 | 520,559 | | 575,656,515 | 1,106 |
| 1922..... | 71,586 | | 129,836,831 | 1,814 | 384,670 | | 359,560,399 | 935 |
| 1924..... | 54,379 | 15,641 | 130,344,822 | 1,862 | 322,719 | 94,871 | 404,122,853 | 968 |
| 1926..... | 58,245 | 17,092 | 142,353,900 | 1,890 | 374,244 | 109,580 | 483,328,342 | 999 |
| 1929..... | 67,731 | 21,110 | 175,553,710 | 1,976 | 454,768 | 122,922 | 601,737,507 | 1,042 |
| 1933..... | 67,875 | 18,761 | 139,317,946 | 1,608 | 287,266 | 94,756 | 296,929,878 | 777 |
| 1939..... | 98,165 | 26,607 | 217,839,334 | 1,746 | 415,488 | 117,854 | 519,971,819 | 975 |
| 1944..... | 126,858 | 65,700 | 418,065,594 | 2,171 | 744,635 | 285,689 | 1,611,555,776 | 1,564 |
| 1945..... | 128,601 | 62,106 | 417,857,619 | 2,191 | 680,620 | 248,045 | 1,427,915,830 | 1,538 |
| 1946..... | 127,002 | 54,004 | 410,875,776 | 2,270 | 662,699 | 214,451 | 1,329,811,478 | 1,516 |
| 1947..... | 135,248 | 55,852 | 474,693,800 | 2,484 | 721,407 | 219,243 | 1,611,232,166 | 1,713 |
| 1948..... | 141,038 | 57,192 | 532,594,959 | 2,687 | 738,721 | 218,770 | 1,876,773,231 | 1,960 |
| 1949..... | 157,516 | 64,035 | 628,427,937 | 2,836 | 732,457 | 217,199 | 1,963,462,720 | 2,067 |
| 1950..... | 164,475 | 66,578 | 692,633,349 | 2,998 | 736,477 | 215,767 | 2,078,634,086 | 2,183 |
| 1951..... | 176,943 | 70,844 | 816,714,604 | 3,296 | 792,394 | 218,194 | 2,459,566,313 | 2,434 |
| 1952..... | 188,235 | 74,792 | 923,905,251 | 3,513 | 810,060 | 215,295 | 2,713,714,909 | 2,647 |
| 1953..... | 195,843 | 78,382 | 1,016,679,409 | 3,707 | 828,363 | 224,863 | 2,940,338,939 | 2,792 |
| 1954..... | 199,763 | 79,173 | 1,075,101,215 | 3,854 | 779,955 | 209,075 | 2,821,586,476 | 2,853 |
| 1955..... | 206,881 | 80,588 | 1,147,142,086 | 3,990 | 796,721 | 214,271 | 2,995,267,448 | 2,963 |

Average earnings of supervisory and office employees in 1955 amounted to \$3,990 which was \$1,154 or 41 p.c. higher than in 1949. Supervisory and office employees in Ontario with \$4,156 were the highest paid. Those in British Columbia were second with \$4,079, Quebec third with \$3,959, and Manitoba fourth with \$3,632. The fact that head offices of many large corporations are located in Toronto, Vancouver, Montreal and Winnipeg tends to raise the average salary in the provinces in which these cities are located.

* Statistics of earnings and hours of work in manufacturing will be found in Chapter XVIII on Labour.

Average earnings of production workers in 1955 amounted to \$2,963 which was \$896 or 43 p.c. higher than in 1949. The manufacturing industries of British Columbia paid the highest average wages of \$3,307. Ontario with \$3,166 was in second place, followed by Saskatchewan with \$3,017, Alberta \$2,977, Manitoba \$2,762, Newfoundland \$2,752, Quebec \$2,695, etc. The high figure of average earnings of production workers in the Yukon and Northwest Territories is the result of the unusual conditions under which industry is carried on in these regions and is not representative. Statistics of the distribution of employees by provinces and groups as well as average annual earnings are given in Table 18.

Ontario has a larger proportion of females among its supervisory and office employees than the other provinces. The same situation prevails in Quebec with regard to production workers, because of the importance of the textile industries in providing employment to females. Of all female production workers engaged in the manufacturing industries of Canada in 1955, 42 p.c. were found in the textile and clothing groups.

18.—Annual Earnings of Employees in Manufacturing Industries, by Province and Industrial Group 1954 and 1955

| Year, Province and Industrial Group | Supervisory and Office Employees | | | | Production Workers | | | |
|---|----------------------------------|---------------|----------------------|------------------|--------------------|----------------|----------------------|------------------|
| | Male | Female | Total Earnings | Average Earnings | Male | Female | Total Earnings | Average Earnings |
| | No. | No. | \$ | \$ | No. | No. | \$ | \$ |
| 1954 | | | | | | | | |
| Newfoundland..... | 1,896 | 338 | 6,001,893 | 2,687 | 6,752 | 906 | 24,099,293 | 3,147 |
| Prince Edward Island..... | 341 | 105 | 887,343 | 1,990 | 946 | 382 | 2,112,868 | 1,591 |
| Nova Scotia..... | 3,827 | 1,032 | 13,899,172 | 2,861 | 21,540 | 3,212 | 57,841,068 | 2,337 |
| New Brunswick..... | 2,638 | 865 | 10,916,819 | 3,117 | 15,673 | 2,931 | 44,192,609 | 2,375 |
| Quebec..... | 63,381 | 24,165 | 335,074,103 | 3,827 | 246,557 | 89,992 | 879,587,297 | 2,614 |
| Ontario..... | 98,559 | 43,279 | 571,549,485 | 4,030 | 365,635 | 91,441 | 1,383,217,903 | 3,026 |
| Manitoba..... | 6,074 | 2,297 | 29,504,735 | 3,525 | 25,514 | 7,339 | 86,950,151 | 2,647 |
| Saskatchewan..... | 2,371 | 832 | 9,369,753 | 2,925 | 7,334 | 989 | 24,140,080 | 2,900 |
| Alberta..... | 5,878 | 1,894 | 25,181,006 | 3,240 | 21,640 | 3,353 | 71,728,883 | 2,870 |
| British Columbia..... | 14,754 | 4,356 | 72,549,043 | 3,796 | 68,243 | 8,514 | 247,253,871 | 3,221 |
| Yukon and Northwest Territories..... | 44 | 10 | 167,863 | 3,109 | 121 | 16 | 462,453 | 3,376 |
| Canada, 1954..... | 199,763 | 79,173 | 1,075,101,215 | 3,854 | 779,955 | 209,075 | 2,821,586,476 | 2,853 |
| Foods and beverages..... | 25,396 | 10,339 | 124,200,904 | 3,476 | 106,476 | 35,672 | 352,857,824 | 2,482 |
| Tobacco and tobacco products..... | 779 | 444 | 5,583,075 | 4,565 | 3,210 | 5,036 | 22,285,864 | 2,703 |
| Rubber products..... | 3,576 | 1,453 | 20,002,690 | 3,977 | 12,355 | 3,510 | 47,473,715 | 2,992 |
| Leather products..... | 2,804 | 1,257 | 14,918,329 | 3,674 | 15,266 | 11,421 | 62,243,428 | 1,958 |
| Textiles (except clothing)..... | 7,697 | 3,866 | 45,684,342 | 3,951 | 33,636 | 19,382 | 124,511,798 | 2,348 |
| Knitting mills..... | 1,578 | 1,287 | 10,373,820 | 3,621 | 6,512 | 12,245 | 37,204,015 | 1,983 |
| Clothing (textile and fur)..... | 7,664 | 4,426 | 45,895,052 | 3,796 | 22,774 | 54,829 | 145,599,823 | 1,876 |
| Wood products..... | 21,485 | 3,360 | 64,532,715 | 2,597 | 98,899 | 5,184 | 258,559,499 | 2,484 |
| Paper products..... | 11,083 | 4,314 | 76,210,610 | 4,950 | 63,795 | 8,178 | 255,345,416 | 3,548 |
| Printing, publishing and allied trades..... | 16,504 | 10,467 | 87,884,805 | 3,258 | 32,880 | 8,763 | 132,391,184 | 3,179 |
| Iron and steel products..... | 29,307 | 9,837 | 164,855,267 | 4,212 | 127,607 | 6,947 | 440,671,262 | 3,275 |
| Transportation equipment..... | 20,575 | 6,149 | 117,350,947 | 4,391 | 103,186 | 3,522 | 361,728,803 | 3,390 |
| Non-ferrous metal products..... | 7,855 | 2,634 | 45,478,189 | 4,336 | 37,143 | 2,862 | 136,713,132 | 3,417 |
| Electrical apparatus and supplies..... | 17,140 | 7,312 | 99,068,566 | 4,052 | 35,936 | 14,687 | 159,441,035 | 3,150 |
| Non-metallic mineral products..... | 4,934 | 1,625 | 25,266,739 | 3,852 | 26,677 | 1,993 | 98,582,340 | 3,125 |
| Products of petroleum and coal..... | 4,522 | 1,571 | 25,985,036 | 4,265 | 11,402 | 64 | 43,696,689 | 3,811 |
| Chemicals and allied products..... | 11,824 | 6,155 | 73,411,733 | 4,083 | 27,603 | 6,021 | 103,900,227 | 3,090 |
| Miscellaneous industries..... | 5,037 | 2,677 | 28,398,396 | 3,681 | 14,598 | 8,759 | 57,350,422 | 2,455 |
| 1955 | | | | | | | | |
| Newfoundland..... | 1,852 | 329 | 6,091,470 | 2,793 | 6,959 | 1,221 | 22,512,998 | 2,752 |
| Prince Edward Island..... | 357 | 98 | 962,201 | 2,115 | 655 | 359 | 2,111,884 | 1,607 |
| Nova Scotia..... | 3,754 | 1,076 | 14,456,233 | 2,993 | 22,012 | 3,376 | 62,099,690 | 2,466 |
| New Brunswick..... | 2,696 | 859 | 11,108,907 | 3,125 | 15,913 | 2,966 | 45,574,438 | 2,414 |
| Quebec..... | 64,815 | 24,803 | 354,837,904 | 3,959 | 247,984 | 91,973 | 916,240,049 | 2,695 |
| Ontario..... | 103,142 | 43,679 | 610,157,207 | 4,156 | 373,813 | 93,238 | 1,478,748,420 | 3,166 |

18.—Annual Earnings of Employees in Manufacturing Industries, by Province and Industrial Group 1954 and 1955—concluded

| Year, Province and Industrial Group | Supervisory and Office Employees | | | | Production Workers | | | |
|---|----------------------------------|---------------|----------------------|------------------|--------------------|----------------|----------------------|------------------|
| | Male | Female | Total Earnings | Average Earnings | Male | Female | Total Earnings | Average Earnings |
| | No. | No. | \$ | \$ | No. | No. | \$ | \$ |
| 1955—concluded | | | | | | | | |
| Manitoba..... | 6,344 | 2,390 | 31,719,240 | 3,632 | 25,082 | 7,502 | 89,999,333 | 2,762 |
| Saskatchewan..... | 2,383 | 871 | 9,973,963 | 3,065 | 7,264 | 972 | 24,851,548 | 3,017 |
| Alberta..... | 6,384 | 1,995 | 27,760,078 | 3,313 | 22,991 | 3,476 | 78,788,737 | 2,977 |
| British Columbia..... | 15,119 | 4,478 | 79,930,870 | 4,079 | 73,639 | 9,172 | 273,879,857 | 3,307 |
| Yukon and Northwest Territories..... | 35 | 10 | 144,013 | 3,200 | 109 | 16 | 460,494 | 3,684 |
| Canada, 1955..... | 206,881 | 80,588 | 1,147,142,086 | 3,990 | 796,721 | 214,271 | 2,995,267,448 | 2,963 |
| Foods and beverages..... | 25,698 | 10,434 | 128,857,099 | 3,566 | 107,325 | 36,628 | 369,929,478 | 2,570 |
| Tobacco and tobacco products..... | 793 | 428 | 5,778,275 | 4,732 | 3,278 | 5,030 | 23,668,616 | 2,849 |
| Rubber products..... | 3,665 | 1,494 | 20,926,441 | 4,056 | 12,984 | 3,770 | 52,848,523 | 3,154 |
| Leather products..... | 2,671 | 1,221 | 14,717,680 | 3,782 | 15,190 | 11,493 | 54,252,596 | 2,033 |
| Textiles..... | 8,397 | 4,247 | 50,921,133 | 4,027 | 35,815 | 20,685 | 136,883,911 | 2,423 |
| Knitting mills..... | 1,409 | 1,197 | 9,192,965 | 3,528 | 6,384 | 12,668 | 38,015,243 | 1,995 |
| Clothing..... | 7,402 | 4,410 | 46,444,787 | 3,932 | 22,064 | 55,810 | 149,991,692 | 1,926 |
| Wood products..... | 21,431 | 3,531 | 71,860,965 | 2,879 | 103,276 | 5,435 | 282,578,932 | 2,599 |
| Paper products..... | 11,309 | 4,454 | 79,547,953 | 5,046 | 65,858 | 8,129 | 270,229,096 | 3,652 |
| Printing, publishing and allied trades..... | 17,056 | 10,629 | 94,464,145 | 3,412 | 33,313 | 8,604 | 140,115,713 | 3,343 |
| Iron and steel products..... | 30,473 | 10,352 | 174,476,424 | 4,274 | 134,125 | 6,750 | 493,180,655 | 3,501 |
| Transportation equipment..... | 22,737 | 6,164 | 131,587,688 | 4,553 | 99,243 | 3,645 | 358,847,308 | 3,488 |
| Non-ferrous metal products..... | 8,275 | 2,812 | 50,902,785 | 4,591 | 39,210 | 3,014 | 150,207,094 | 3,557 |
| Electrical apparatus and supplies..... | 17,931 | 7,013 | 101,455,460 | 4,067 | 35,410 | 15,890 | 162,576,014 | 3,169 |
| Non-metallic mineral products..... | 5,470 | 1,735 | 29,503,184 | 4,095 | 29,718 | 2,026 | 101,503,547 | 3,198 |
| Products of petroleum and coal..... | 4,782 | 1,547 | 28,213,364 | 4,458 | 11,094 | 63 | 44,223,195 | 3,964 |
| Chemicals and allied products..... | 12,349 | 6,300 | 78,441,944 | 4,206 | 27,362 | 5,845 | 106,825,999 | 3,217 |
| Miscellaneous industries..... | 5,033 | 2,620 | 29,849,794 | 3,900 | 15,072 | 8,786 | 59,389,836 | 2,489 |

Average Annual Earnings in the Forty Leading Industries.—Variations in average earnings are related to the number of employees in industries or areas where pay levels are above or below the average because of differences in basic pay rates, in sex and occupational distributions, in amounts of bonus or commission payments, in levels of activity, etc. The earnings of salaried men are substantially higher, on the average, than those of other categories, mainly because their numbers include relatively highly paid managerial and professional workers. Women's earnings are generally well below those of men in the same industry, chiefly as a result of pay differentials, occupational differences, the greater incidence of part-time work and absenteeism among women, and their higher proportions of younger and less experienced workers.

In 1955 three industries were paying supervisory and office workers an average of \$5,000 or over, as compared with none in 1951. Indicative of the rapidly changing pattern of remuneration in manufacturing is the fact that in 1945, no industry paid supervisory and office workers annual salaries of over \$3,000. The highest average earnings in that year were \$2,935 reported by the brewing industry. Highest average earnings in 1955, amounting to \$5,636, were received by the supervisory and office employees of the pulp and paper industry which held the premier position for a number of years. Breweries with \$5,539 and non-ferrous metal smelting and refining with \$5,167 were the two other industries with salaries of \$5,000 or over. There were six industries with average salaries of \$4,500 to \$5,000: motor vehicles \$4,977; primary iron and steel \$4,936; acids, alkalies and salts \$4,745; bridge building and structural steel \$4,743; motor vehicle parts \$4,711; and petroleum products \$4,570. In nineteen other industries average salaries ranged between \$4,000 and \$4,500, in eight they were between \$3,500 and \$4,000, and in the remaining four they were below \$3,500.

The average salary for the forty leading industries was \$4,084 as compared with \$3,789 for the smaller industries. The lower average is caused in part by a higher proportion of female office employees in the smaller industries. In the forty leading industries, 26 p.c. of the office employees were female while in the smaller industries 33 p.c. were in that category.

The increase in the average earnings of production workers since 1945 paralleled that of office and supervisory employees. Whereas in 1945 there were only four industries averaging over \$2,000, in 1955 the number jumped to thirty-six. In 1945, the highest annual earnings, amounting to \$2,365, were paid by the motor vehicle industry, while in 1955 the highest earnings, which totalled \$4,189, were paid by the petroleum products industry which had been in first place for a number of years. The highest earnings are usually paid by industries in which the proportion of skilled workers is high and the proportion of female workers is low. Three industries in 1955 had average annual earnings of \$4,000 or more: petroleum products \$4,189; primary iron and steel \$4,089; and pulp and paper \$4,004. Eight other industries had annual averages of \$3,500 to \$4,000. Non-ferrous metal smelting and refining \$3,933, acids, alkalies and salts \$3,856, motor vehicles \$3,764, breweries \$3,705, bridge building and structural steel \$3,665, aircraft \$3,661, printing and publishing \$3,655, and wire and wire goods \$3,539 were in this category. In fifteen other industries average annual earnings ranged between \$3,000 and \$3,500, in ten others they were between \$2,400 and \$3,000, while in the remaining four they were below \$2,000. Men's factory clothing, women's factory clothing, leather footwear, and fruit and vegetable preparations are the industries included in the latter group.

Average annual earnings of production workers in the forty leading industries amounted to \$3,120 as compared with \$2,610 for the smaller industries. The lower average for the smaller industries is caused mainly by a higher proportion of female workers. Employment by sex and average annual earnings in the forty leading industries are given in Table 19.

19.—Annual Earnings of Employees in the Forty Leading Manufacturing Industries 1954 and 1955

NOTE.—Industries ranked according to the aggregate earnings paid.

| Year and Industry | Supervisory and Office Employees | | | | Production Workers | | | |
|--|----------------------------------|--------|----------------|-------------------------|--------------------|--------|----------------|-------------------------|
| | Male | Female | Total Earnings | Average Annual Earnings | Male | Female | Total Earnings | Average Annual Earnings |
| | No. | No. | \$ | \$ | No. | No. | \$ | \$ |
| 1954 | | | | | | | | |
| 1 Pulp and paper..... | 7,361 | 2,328 | 53,304,859 | 5,502 | 50,309 | 839 | 199,293,524 | 3,896 |
| 2 Sawmills..... | 11,713 | 826 | 23,468,345 | 1,872 | 44,048 | 423 | 116,103,186 | 2,611 |
| 3 Aircraft and parts..... | 8,080 | 2,696 | 46,068,342 | 4,275 | 23,560 | 759 | 89,795,143 | 3,692 |
| 4 Primary iron and steel..... | 3,526 | 940 | 21,467,572 | 4,807 | 24,205 | 190 | 87,349,858 | 3,581 |
| 5 Motor vehicles..... | 4,991 | 1,440 | 31,003,977 | 4,821 | 21,186 | 232 | 75,058,462 | 3,504 |
| 6 Non-ferrous metal smelting and refining..... | 3,604 | 578 | 20,171,958 | 4,824 | 21,817 | 49 | 82,424,012 | 3,770 |
| 7 Printing and publishing..... | 8,414 | 4,876 | 45,364,930 | 3,413 | 14,063 | 2,048 | 55,109,697 | 3,421 |
| 8 Railway rolling-stock..... | 2,241 | 323 | 11,502,181 | 4,486 | 26,537 | 113 | 85,360,263 | 3,203 |
| 9 Bread and other bakery products..... | 3,793 | 1,301 | 14,749,036 | 2,896 | 21,905 | 6,884 | 69,055,826 | 2,399 |
| 10 Machinery, heavy electrical..... | 5,490 | 1,930 | 30,991,973 | 4,177 | 12,029 | 2,771 | 52,116,506 | 3,521 |
| 11 Miscellaneous electrical apparatus..... | 4,932 | 2,133 | 29,500,244 | 4,176 | 11,781 | 4,778 | 52,752,334 | 3,186 |
| 12 Machinery, industrial..... | 4,970 | 1,914 | 28,385,901 | 4,123 | 15,517 | 445 | 52,103,745 | 3,264 |
| 13 Slaughtering and meat packing..... | 3,901 | 1,303 | 21,919,954 | 4,212 | 14,586 | 3,209 | 56,779,136 | 3,191 |
| 14 Furniture..... | 4,072 | 1,202 | 18,239,906 | 3,458 | 22,644 | 1,958 | 59,365,650 | 2,413 |
| 15 Printing and bookbinding..... | 4,174 | 1,970 | 21,853,786 | 3,557 | 12,879 | 5,184 | 50,358,874 | 2,788 |
| 16 Clothing, men's factory..... | 2,651 | 1,549 | 15,842,107 | 3,772 | 8,701 | 18,985 | 51,736,607 | 1,889 |
| 17 Rubber goods, incl. footwear..... | 3,876 | 1,453 | 20,002,690 | 3,977 | 12,355 | 3,510 | 47,473,715 | 2,992 |
| 18 Motor vehicle parts..... | 2,717 | 973 | 16,437,344 | 4,455 | 12,716 | 1,957 | 49,103,099 | 3,346 |
| 19 Shipbuilding..... | 1,987 | 547 | 10,065,754 | 3,972 | 16,710 | 112 | 55,190,789 | 3,281 |
| 20 Clothing, women's factory..... | 2,107 | 1,494 | 14,638,167 | 4,065 | 5,820 | 17,922 | 46,810,261 | 1,972 |
| 21 Sheet metal products..... | 2,826 | 1,022 | 16,152,834 | 4,198 | 12,560 | 1,641 | 45,291,941 | 3,189 |

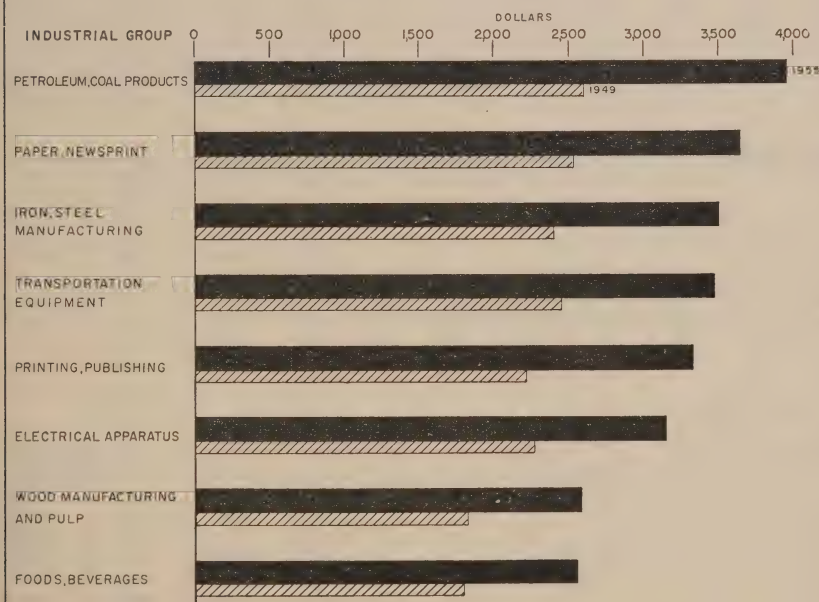
**19.—Annual Earnings of Employees in the Forty Leading Manufacturing Industries
1954 and 1955—continued**

| Year and Industry | Supervisory and Office Employees | | | | Production Workers | | | |
|--|----------------------------------|---------------|----------------------|-------------------------|--------------------|----------------|----------------------|-------------------------|
| | Male | Female | Total Earnings | Average Annual Earnings | Male | Female | Total Earnings | Average Annual Earnings |
| | No. | No. | \$ | \$ | No. | No. | \$ | \$ |
| 1954—concluded | | | | | | | | |
| 22 Telecommunication equipment..... | 4,558 | 2,282 | 26,288,104 | 3,843 | 5,698 | 5,482 | 30,104,134 | 2,693 |
| 23 Butter and cheese..... | 3,273 | 1,681 | 12,793,387 | 2,582 | 14,784 | 861 | 42,228,439 | 2,699 |
| 24 Petroleum products..... | 3,485 | 1,156 | 20,557,336 | 4,430 | 7,780 | 55 | 31,758,872 | 4,053 |
| 25 Cotton yarn and cloth..... | 1,564 | 882 | 8,965,108 | 3,665 | 11,431 | 5,988 | 40,482,187 | 2,324 |
| 26 Castings, iron..... | 1,600 | 593 | 9,213,915 | 4,202 | 11,331 | 224 | 38,321,382 | 3,316 |
| 27 Sash, door and planing mills..... | 3,291 | 600 | 11,473,058 | 2,949 | 15,340 | 155 | 35,925,069 | 2,318 |
| 28 Miscellaneous chemical products..... | 2,755 | 1,163 | 15,996,177 | 4,083 | 7,637 | 1,928 | 27,453,200 | 2,870 |
| 29 Hardware, tools and cutlery..... | 1,996 | 925 | 11,710,472 | 4,009 | 8,879 | 1,464 | 30,497,057 | 2,949 |
| 30 Footwear, leather..... | 1,671 | 799 | 8,933,162 | 3,617 | 9,497 | 8,322 | 33,244,019 | 1,866 |
| 31 Bridge building and structural steel..... | 2,320 | 498 | 13,264,243 | 4,707 | 8,023 | 40 | 28,903,739 | 3,585 |
| 32 Miscellaneous iron and steel products..... | 2,066 | 593 | 10,710,462 | 4,028 | 8,571 | 921 | 30,219,880 | 3,184 |
| 33 Boxes and bags, paper..... | 1,661 | 820 | 10,655,823 | 4,295 | 6,987 | 4,415 | 29,976,600 | 2,629 |
| 34 Synthetic textiles and silk..... | 2,409 | 1,069 | 13,837,299 | 3,978 | 7,765 | 2,419 | 26,790,844 | 2,631 |
| 35 Agricultural implements..... | 2,289 | 567 | 11,690,306 | 4,093 | 8,856 | 93 | 28,534,665 | 3,189 |
| 36 Fruit and vegetable preparations..... | 1,729 | 957 | 9,902,293 | 3,687 | 6,784 | 6,345 | 24,812,535 | 1,890 |
| 37 Acids, alkalis and salts..... | 2,034 | 568 | 11,696,998 | 4,495 | 5,764 | 42 | 21,728,866 | 3,742 |
| 38 Breweries..... | 1,392 | 370 | 9,448,305 | 5,362 | 6,702 | 77 | 23,974,539 | 3,537 |
| 39 Boilers, tanks and platework..... | 1,816 | 567 | 10,271,417 | 4,310 | 5,602 | 142 | 20,276,286 | 3,530 |
| 40 Brass and copper products..... | 1,322 | 549 | 8,254,573 | 4,412 | 6,238 | 421 | 21,876,552 | 3,285 |
| Totals, Forty Leading Industries..... | 140,357 | 49,437 | 746,794,298 | 3,935 | 569,597 | 113,403 | 2,045,741,498 | 2,995 |
| Totals, All Industries..... | 199,763 | 79,173 | 1,075,101,215 | 3,854 | 779,955 | 209,075 | 2,821,586,476 | 2,853 |
| 1955 | | | | | | | | |
| 1 Pulp and paper..... | 7,559 | 2,374 | 55,980,812 | 5,636 | 51,498 | 774 | 209,317,307 | 4,004 |
| 2 Sawmills..... | 11,425 | 853 | 26,812,447 | 2,184 | 45,870 | 438 | 125,774,372 | 2,715 |
| 3 Primary iron and steel..... | 3,703 | 979 | 23,108,918 | 4,936 | 27,636 | 189 | 113,770,485 | 4,089 |
| 4 Motor vehicles..... | 5,736 | 1,557 | 36,296,523 | 4,977 | 25,790 | 346 | 98,365,235 | 3,764 |
| 5 Aircraft and parts..... | 9,092 | 2,622 | 52,198,947 | 4,456 | 20,746 | 576 | 78,070,062 | 3,661 |
| 6 Non-ferrous metal smelting and refining..... | 3,954 | 647 | 23,771,907 | 5,167 | 23,956 | 49 | 94,417,471 | 3,933 |
| 7 Printing and publishing..... | 8,658 | 4,951 | 48,471,807 | 3,562 | 14,204 | 2,042 | 59,372,279 | 3,655 |
| 8 Bread and other bakery products..... | 3,711 | 1,318 | 14,522,303 | 2,888 | 22,396 | 6,991 | 73,237,701 | 2,492 |
| 9 Machinery, industrial..... | 5,435 | 2,104 | 31,060,027 | 4,120 | 15,686 | 613 | 55,469,678 | 3,403 |
| 10 Railway rolling-stock..... | 2,474 | 337 | 12,411,551 | 4,415 | 22,554 | 35 | 73,846,072 | 3,269 |
| 11 Furniture..... | 4,161 | 1,280 | 19,933,258 | 3,664 | 23,197 | 1,985 | 84,309,128 | 2,554 |
| 12 Slaughtering and meat packing..... | 3,918 | 1,286 | 22,034,636 | 4,234 | 15,107 | 3,344 | 60,972,310 | 3,305 |
| 13 Miscellaneous electrical apparatus..... | 4,594 | 2,054 | 27,671,784 | 4,162 | 11,526 | 5,118 | 54,453,373 | 3,272 |
| 14 Machinery, heavy electrical..... | 5,946 | 2,259 | 33,548,235 | 4,089 | 11,176 | 2,835 | 48,356,668 | 3,451 |
| 15 Printing and bookbinding..... | 4,323 | 2,016 | 23,363,753 | 3,686 | 13,144 | 5,037 | 53,088,784 | 2,920 |
| 16 Motor vehicle parts..... | 2,966 | 995 | 18,662,232 | 4,711 | 13,662 | 2,373 | 55,919,007 | 3,487 |
| 17 Rubber goods, incl. footwear..... | 3,665 | 1,494 | 20,926,441 | 4,056 | 12,984 | 3,770 | 52,848,523 | 3,154 |
| 18 Clothing, men's factory..... | 2,536 | 1,521 | 16,142,829 | 3,979 | 8,195 | 19,193 | 52,666,466 | 1,923 |
| 19 Sheet metal products..... | 2,999 | 1,115 | 17,756,589 | 4,316 | 13,343 | 1,623 | 48,906,228 | 3,268 |
| 20 Telecommunication equipment..... | 4,621 | 1,722 | 27,526,908 | 4,333 | 6,317 | 6,366 | 34,214,382 | 2,698 |
| 21 Clothing, women's factory..... | 2,001 | 1,460 | 14,543,530 | 4,202 | 5,538 | 17,926 | 46,911,850 | 1,999 |
| 22 Petroleum products..... | 4,010 | 1,261 | 24,088,434 | 4,570 | 8,011 | 58 | 33,803,953 | 4,189 |
| 23 Butter and cheese..... | 3,255 | 1,668 | 13,240,683 | 2,690 | 14,715 | 806 | 43,429,853 | 2,798 |
| 24 Cotton yarn and cloth..... | 2,034 | 1,179 | 11,905,273 | 3,705 | 11,890 | 6,434 | 44,505,777 | 2,729 |
| 25 Shipbuilding..... | 1,966 | 511 | 9,868,409 | 3,984 | 14,248 | 104 | 46,299,249 | 3,226 |
| 26 Castings, iron..... | 1,814 | 690 | 10,727,761 | 4,284 | 12,502 | 260 | 44,546,237 | 3,491 |
| 27 Sash, door and planing mills..... | 3,367 | 644 | 12,595,812 | 3,140 | 16,047 | 181 | 39,589,866 | 2,440 |
| 28 Synthetic textiles and silk..... | 2,669 | 1,177 | 15,890,590 | 4,132 | 8,828 | 2,734 | 31,036,660 | 2,684 |
| 29 Bridge building and structural steel..... | 2,325 | 534 | 13,561,580 | 4,743 | 8,984 | 20 | 32,995,564 | 3,665 |

**19.—Annual Earnings of Employees in the Forty Leading Manufacturing Industries
1954 and 1955—concluded**

| Year and Industry | Supervisory and Office Employees | | | | Production Workers | | | |
|---|----------------------------------|---------------|----------------------|-------------------------|--------------------|----------------|----------------------|-------------------------|
| | Male | Female | Total Earnings | Average Annual Earnings | Male | Female | Total Earnings | Average Annual Earnings |
| 1955—concluded | No. | No. | \$ | \$ | No. | No. | \$ | \$ |
| 30 Hardware, tools and cutlery. | 1,915 | 979 | 12,357,099 | 4,270 | 8,704 | 1,517 | 32,224,399 | 3,153 |
| 31 Boxes and bags, paper. | 1,743 | 875 | 10,810,471 | 4,129 | 7,589 | 4,406 | 33,179,592 | 2,766 |
| 32 Miscellaneous chemical products. | 2,823 | 1,156 | 17,078,074 | 4,292 | 7,125 | 1,594 | 26,865,083 | 3,081 |
| 33 Footwear, leather. | 1,598 | 784 | 8,913,779 | 3,742 | 9,222 | 8,225 | 33,926,151 | 1,945 |
| 34 Agricultural implements. | 2,225 | 576 | 11,244,548 | 4,014 | 8,858 | 94 | 30,684,492 | 3,428 |
| 35 Miscellaneous iron and steel products. | 2,037 | 553 | 11,001,652 | 4,248 | 8,131 | 486 | 28,830,355 | 3,346 |
| 36 Fruit and vegetable preparations. | 1,957 | 1,004 | 11,275,137 | 3,808 | 7,209 | 6,981 | 27,664,439 | 1,950 |
| 37 Acids, alkalies and salts. | 2,112 | 586 | 12,801,557 | 4,745 | 5,847 | 52 | 22,746,294 | 3,856 |
| 38 Breweries. | 1,457 | 389 | 10,224,567 | 5,539 | 6,445 | 77 | 24,163,118 | 3,705 |
| 39 Wine and wine goods. | 1,417 | 601 | 8,666,174 | 4,294 | 6,541 | 702 | 25,635,300 | 3,539 |
| 40 Brass and copper products. | 1,366 | 580 | 8,604,260 | 4,422 | 6,411 | 507 | 23,669,781 | 3,421 |
| Totals, Forty Leading Industries. | 145,567 | 50,701 | 801,601,297 | 4,084 | 581,832 | 116,861 | 2,180,053,544 | 3,120 |
| Totals, All Industries. | 206,881 | 80,588 | 1,147,142,086 | 3,990 | 796,721 | 214,271 | 2,995,267,448 | 2,963 |

**AVERAGE ANNUAL WAGES OF PRODUCTION WORKERS,
SELECTED INDUSTRIES, 1949 AND 1955**



Average Earnings of Production Workers.—In comparing earnings by provinces or groups, consideration should be given to the type of industries in each case since the distribution of industries has a very definite regional significance. In some industries a labour force possessing deftness and speed or the ability to exercise muscular strength is necessary, in others the labour force must exercise craftsmanship or possess a high degree of technical knowledge. Workers in the latter industries naturally command relatively higher wages than those in industries where employees are routine workers.

The ranking of provinces and industries as regards annual earnings is often different from that of weekly or hourly earnings since the factors of number of weeks worked per year and number of hours worked per week enter into the calculation.

20.—Average Annual, Weekly and Hourly Earnings of Male and Female Production Workers Employed in Manufacturing Industries 1946-55

NOTE.—Figures are based on returns received from establishments employing 15 or more persons; figures for 1946 and 1947 refer to the last week in November whereas those for later years refer to the last week in October.

| Year | Average Earnings | | | Average Hours Worked per Week |
|-----------------------------------|------------------|--------|--------|-------------------------------|
| | Annual | Weekly | Hourly | |
| | \$ | \$ | cents | No. |
| Male Production Workers— | | | | |
| 1946..... | 1,702 | 36.23 | 80.7 | 44.9 |
| 1947..... | 1,909 | 41.35 | 92.1 | 44.9 |
| 1948..... | 2,175 | 45.73 | 102.3 | 44.7 |
| 1949..... | 2,291 | 47.33 | 106.6 | 44.4 |
| 1950..... | 2,419 | 50.93 | 114.2 | 44.6 |
| 1951..... | 2,693 | 56.46 | 131.3 | 43.0 |
| 1952..... | 2,915 | 60.85 | 140.2 | 43.4 |
| 1953..... | 3,082 | 62.71 | 147.1 | 42.6 |
| 1954..... | 3,145 | 63.98 | 151.3 | 42.3 |
| 1955..... | 3,267 | 66.86 | 156.6 | 42.7 |
| Female Production Workers— | | | | |
| 1946..... | 943 | 20.08 | 50.2 | 40.0 |
| 1947..... | 1,067 | 23.11 | 58.2 | 39.7 |
| 1948..... | 1,233 | 25.91 | 65.1 | 39.8 |
| 1949..... | 1,315 | 27.18 | 68.3 | 39.8 |
| 1950..... | 1,376 | 29.00 | 72.5 | 40.0 |
| 1951..... | 1,492 | 31.27 | 82.5 | 37.9 |
| 1952..... | 1,638 | 34.17 | 86.3 | 39.6 |
| 1953..... | 1,723 | 35.07 | 91.0 | 38.5 |
| 1954..... | 1,764 | 35.90 | 93.3 | 38.5 |
| 1955..... | 1,833 | 37.52 | 95.2 | 39.4 |
| All Production Workers— | | | | |
| 1946..... | 1,516 | 32.38 | 74.1 | 43.7 |
| 1947..... | 1,713 | 37.19 | 85.1 | 43.7 |
| 1948..... | 1,960 | 41.25 | 94.6 | 43.6 |
| 1949..... | 2,067 | 42.61 | 98.4 | 43.3 |
| 1950..... | 2,183 | 45.94 | 105.6 | 43.5 |
| 1951..... | 2,434 | 51.32 | 122.2 | 42.0 |
| 1952..... | 2,647 | 55.17 | 129.5 | 42.6 |
| 1953..... | 2,792 | 56.75 | 135.9 | 41.7 |
| 1954..... | 2,853 | 57.99 | 139.8 | 41.5 |
| 1955..... | 2,963 | 60.53 | 144.2 | 42.0 |

21.—Average Earnings of Production Workers in the Manufacturing Industries, by Province and Industrial Group 1954 and 1955

| Province and Industrial Group | 1954 | | | | 1955 | | | |
|---|------------------|--------------|--------------|-------------------------------|------------------|--------------|--------------|-------------------------------|
| | Average Earnings | | | Average Hours Worked per Week | Average Earnings | | | Average Hours Worked per Week |
| | Annual | Weekly | Hourly | | Annual | Weekly | Hourly | |
| | \$ | \$ | cents | No. | \$ | \$ | cents | No. |
| Newfoundland..... | 2,820 | 57.57 | 134.5 | 42.8 | 2,752 | 56.93 | 137.1 | 41.5 |
| Prince Edward Island..... | 1,591 | 39.55 | 87.5 | 45.2 | 1,607 | 39.76 | 89.8 | 44.3 |
| Nova Scotia..... | 2,337 | 48.37 | 117.6 | 41.1 | 2,446 | 51.53 | 124.6 | 41.4 |
| New Brunswick..... | 2,375 | 51.28 | 120.5 | 42.6 | 2,414 | 54.37 | 125.8 | 43.2 |
| Quebec..... | 2,614 | 53.04 | 125.3 | 42.3 | 2,695 | 55.84 | 128.9 | 43.3 |
| Ontario..... | 3,026 | 60.83 | 147.7 | 41.2 | 3,166 | 63.25 | 152.2 | 41.6 |
| Manitoba..... | 2,647 | 54.85 | 133.1 | 41.2 | 2,762 | 57.10 | 137.1 | 41.6 |
| Saskatchewan..... | 2,900 | 58.67 | 141.4 | 41.5 | 3,017 | 60.13 | 145.3 | 41.4 |
| Alberta..... | 2,870 | 60.82 | 146.9 | 41.4 | 2,977 | 61.80 | 149.7 | 41.3 |
| British Columbia..... | 3,221 | 66.95 | 169.2 | 39.6 | 3,307 | 68.88 | 174.1 | 39.6 |
| Yukon and Northwest Territories.. | 3,376 | .. | .. | .. | 3,684 | .. | .. | .. |
| Canada..... | 2,853 | 57.99 | 139.8 | 41.5 | 2,963 | 60.53 | 144.2 | 42.0 |
| Foods and beverages..... | 2,482 | 50.17 | 120.1 | 41.8 | 2,570 | 51.88 | 123.5 | 42.0 |
| Tobacco and tobacco products.... | 2,703 | 56.28 | 138.9 | 40.5 | 2,849 | 57.14 | 141.7 | 40.3 |
| Rubber products..... | 2,992 | 59.91 | 144.1 | 41.6 | 3,154 | 65.03 | 151.3 | 43.0 |
| Leather products..... | 1,958 | 37.87 | 100.2 | 37.8 | 2,033 | 42.04 | 103.6 | 40.6 |
| Textile products (except clothing).. | 2,348 | 47.43 | 110.4 | 43.0 | 2,423 | 48.36 | 111.1 | 43.5 |
| Clothing (incl. knitting mills).... | 1,897 | 38.08 | 99.3 | 38.4 | 1,940 | 38.96 | 98.4 | 39.6 |
| Wood products..... | 2,484 | 54.52 | 126.2 | 43.2 | 2,599 | 56.38 | 129.5 | 43.5 |
| Paper products..... | 3,548 | 69.15 | 161.9 | 42.7 | 3,652 | 72.34 | 168.3 | 43.0 |
| Printing, publishing and allied trades..... | 3,179 | 66.24 | 164.6 | 40.2 | 3,343 | 69.35 | 172.8 | 40.1 |
| Iron and steel products..... | 3,275 | 65.75 | 158.2 | 41.6 | 3,501 | 70.63 | 165.7 | 42.6 |
| Transportation equipment..... | 3,390 | 67.74 | 164.1 | 41.3 | 3,488 | 67.82 | 167.4 | 40.5 |
| Non-ferrous metal products..... | 3,417 | 66.61 | 159.6 | 41.7 | 3,557 | 70.02 | 166.6 | 42.0 |
| Electrical apparatus and supplies.. | 3,150 | 60.62 | 148.3 | 40.9 | 3,169 | 63.35 | 149.7 | 42.3 |
| Non-metallic mineral products.... | 3,125 | 64.03 | 143.4 | 44.7 | 3,198 | 66.44 | 147.7 | 45.0 |
| Products of petroleum and coal.... | 3,811 | 78.58 | 188.7 | 41.6 | 3,964 | 81.44 | 196.2 | 41.5 |
| Chemicals and allied products..... | 3,090 | 60.44 | 145.5 | 41.6 | 3,217 | 63.20 | 152.4 | 41.5 |
| Miscellaneous industries..... | 2,455 | 48.74 | 115.9 | 42.1 | 2,489 | 49.76 | 116.6 | 42.7 |

22.—Average Earnings of Male and Female Production Workers in the Manufacturing Industries, by Province and Industrial Group 1954 and 1955

| Year and Province | Male | | | | Female | | | |
|-----------------------------------|-------------------------|-------------------------|-------------------------|-------------------------------|-------------------------|-------------------------|-------------------------|-------------------------------|
| | Average Annual Earnings | Average Weekly Earnings | Average Hourly Earnings | Average Hours Worked per Week | Average Annual Earnings | Average Weekly Earnings | Average Hourly Earnings | Average Hours Worked per Week |
| | \$ | \$ | cents | No. | \$ | \$ | cents | No. |
| 1954 | | | | | | | | |
| Newfoundland..... | 3,059 | 61.67 | 142.5 | 43.3 | 1,043 | 21.01 | 54.8 | 38.3 |
| Prince Edward Island..... | 1,832 | 44.47 | 97.1 | 45.8 | 967 | 23.48 | 54.6 | 43.0 |
| Nova Scotia..... | 2,520 | 52.41 | 126.5 | 41.4 | 1,106 | 23.01 | 58.5 | 39.3 |
| New Brunswick..... | 2,594 | 55.16 | 127.4 | 43.3 | 1,209 | 25.70 | 68.4 | 37.6 |
| Quebec..... | 2,961 | 60.28 | 137.9 | 43.7 | 1,661 | 33.80 | 87.2 | 38.7 |
| Ontario..... | 3,304 | 66.54 | 159.0 | 41.8 | 1,916 | 38.56 | 100.0 | 38.6 |
| Manitoba..... | 2,939 | 60.70 | 144.9 | 41.9 | 1,631 | 33.67 | 87.1 | 38.7 |
| Saskatchewan..... | 3,056 | 61.86 | 146.4 | 42.3 | 1,748 | 35.41 | 98.8 | 35.8 |
| Alberta..... | 3,037 | 64.00 | 152.1 | 42.1 | 1,795 | 37.81 | 103.2 | 36.6 |
| British Columbia..... | 3,386 | 70.07 | 175.2 | 40.0 | 1,900 | 39.31 | 110.3 | 35.6 |
| Yukon and Northwest Territories.. | .. | .. | .. | .. | .. | .. | .. | .. |
| Canada, 1954..... | 3,145 | 63.98 | 151.3 | 42.3 | 1,764 | 35.90 | 93.3 | 38.5 |

22.—Average Earnings of Male and Female Production Workers in the Manufacturing Industries, by Province and Industrial Group 1954 and 1955—concluded

| Year, Province and Industrial Group | Male | | | | Female | | | |
|--|------------------------------------|------------------------------------|------------------------------------|--|------------------------------------|------------------------------------|------------------------------------|--|
| | Average Annual Earn- ings | Average Weekly Earn- ings | Average Hourly Earn- ings | Average Hours Worked per Week | Average Annual Earn- ings | Average Weekly Earn- ings | Average Hourly Earn- ings | Average Hours Worked per Week |
| | \$ | \$ | cents | No. | \$ | \$ | cents | No. |
| 1954—concluded | | | | | | | | |
| Foods and beverages..... | 2,786 | 57.20 | 132.1 | 43.3 | 1,577 | 32.40 | 85.5 | 37.9 |
| Tobacco and tobacco products.... | 3,113 | 64.82 | 154.0 | 42.1 | 2,441 | 50.85 | 128.7 | 39.5 |
| Rubber products..... | 3,237 | 64.82 | 154.2 | 42.0 | 2,133 | 42.69 | 106.7 | 40.0 |
| Leather products..... | 2,306 | 44.48 | 114.8 | 38.7 | 1,492 | 28.78 | 78.9 | 36.5 |
| Textile products (except clothing)... | 2,629 | 52.93 | 119.5 | 44.3 | 1,861 | 37.46 | 92.3 | 40.6 |
| Clothing (incl. knitting mills)..... | 2,655 | 53.79 | 132.8 | 40.5 | 1,566 | 31.74 | 84.7 | 37.5 |
| Wood products..... | 2,521 | 55.41 | 127.7 | 43.4 | 1,787 | 39.29 | 97.7 | 40.2 |
| Paper products..... | 3,760 | 72.80 | 168.9 | 43.1 | 1,891 | 36.65 | 93.6 | 39.2 |
| Printing, publishing and allied trades..... | 3,577 | 74.85 | 183.7 | 40.7 | 1,688 | 35.35 | 92.1 | 38.4 |
| Iron and steel products..... | 3,330 | 66.82 | 160.2 | 41.7 | 2,258 | 45.33 | 116.5 | 38.9 |
| Transportation equipment..... | 3,419 | 68.37 | 165.2 | 41.4 | 2,523 | 50.46 | 131.5 | 38.4 |
| Non-ferrous metal products..... | 3,533 | 68.75 | 164.3 | 41.9 | 1,922 | 37.43 | 93.5 | 40.0 |
| Electrical apparatus and supplies... | 3,450 | 66.81 | 161.1 | 41.5 | 2,415 | 46.75 | 118.4 | 39.5 |
| Non-metallic mineral products..... | 3,205 | 65.57 | 145.9 | 45.0 | 2,045 | 41.84 | 103.3 | 40.5 |
| Products of petroleum and coal.... | 3,821 | 78.78 | 188.9 | 41.7 | 2,102 | .. | .. | .. |
| Chemicals and allied products..... | 3,345 | 65.46 | 155.5 | 42.1 | 1,920 | 37.56 | 96.3 | 39.0 |
| Miscellaneous industries..... | 2,884 | 57.31 | 132.9 | 43.1 | 1,742 | 34.64 | 86.0 | 40.3 |
| 1955 | | | | | | | | |
| Newfoundland..... | 3,053 | 61.17 | 145.9 | 41.9 | 1,035 | 20.72 | 54.5 | 38.0 |
| Prince Edward Island..... | 1,857 | 45.82 | 101.5 | 45.1 | 940 | 23.17 | 55.1 | 42.0 |
| Nova Scotia..... | 2,641 | 55.62 | 133.7 | 41.6 | 1,173 | 24.70 | 62.0 | 39.9 |
| New Brunswick..... | 2,628 | 58.82 | 133.9 | 43.9 | 1,267 | 28.33 | 72.7 | 39.0 |
| Quebec..... | 3,061 | 63.69 | 142.6 | 44.7 | 1,708 | 35.53 | 89.2 | 39.8 |
| Ontario..... | 3,457 | 69.25 | 164.4 | 42.1 | 1,998 | 40.06 | 101.9 | 39.3 |
| Manitoba..... | 3,090 | 63.38 | 149.7 | 42.3 | 1,666 | 34.19 | 87.4 | 39.1 |
| Saskatchewan..... | 3,181 | 63.70 | 151.2 | 42.1 | 1,797 | 36.00 | 98.6 | 36.5 |
| Alberta..... | 3,141 | 65.16 | 156.0 | 41.8 | 1,894 | 39.31 | 103.6 | 37.9 |
| British Columbia..... | 3,473 | 72.14 | 180.7 | 39.9 | 1,973 | 40.96 | 112.4 | 36.4 |
| Yukon and Northwest Territories..... | .. | .. | .. | .. | .. | .. | .. | .. |
| Canada, 1955..... | 3,267 | 66.86 | 156.6 | 42.7 | 1,833 | 37.52 | 95.2 | 39.4 |
| Foods and beverages..... | 2,882 | 59.16 | 135.9 | 43.5 | 1,654 | 33.96 | 85.9 | 38.2 |
| Tobacco and tobacco products.... | 3,282 | 66.30 | 160.2 | 41.4 | 2,567 | 51.84 | 130.5 | 39.7 |
| Rubber products..... | 3,434 | 70.87 | 162.5 | 43.6 | 2,191 | 45.18 | 110.6 | 40.8 |
| Leather products..... | 2,417 | 50.00 | 119.8 | 41.7 | 1,525 | 31.54 | 80.7 | 39.1 |
| Textile products (except clothing)... | 2,702 | 54.21 | 120.4 | 45.0 | 1,905 | 38.22 | 93.4 | 40.9 |
| Clothing (incl. knitting mills)..... | 2,725 | 55.56 | 133.3 | 41.7 | 1,613 | 32.90 | 84.8 | 38.8 |
| Wood products..... | 2,635 | 57.29 | 131.1 | 43.7 | 1,929 | 41.94 | 102.5 | 40.9 |
| Paper products..... | 3,858 | 76.26 | 176.5 | 43.2 | 1,983 | 39.17 | 95.6 | 41.0 |
| Printing, publishing and allied trades..... | 3,752 | 78.17 | 192.3 | 40.7 | 1,756 | 36.61 | 95.9 | 38.2 |
| Iron and steel products..... | 3,558 | 71.76 | 167.8 | 42.8 | 2,359 | 47.59 | 119.3 | 39.9 |
| Transportation equipment..... | 3,523 | 68.45 | 168.7 | 40.6 | 2,537 | 49.28 | 127.5 | 38.6 |
| Non-ferrous metal products..... | 3,678 | 72.41 | 171.8 | 42.1 | 1,986 | 39.13 | 96.2 | 40.7 |
| Electrical apparatus and supplies... | 3,529 | 71.75 | 164.9 | 43.5 | 2,368 | 48.15 | 119.8 | 40.2 |
| Non-metallic mineral products..... | 3,271 | 68.06 | 150.3 | 45.3 | 2,113 | 43.97 | 108.5 | 40.5 |
| Products of petroleum and coal.... | 3,974 | 81.71 | 196.5 | 41.6 | 2,186 | .. | .. | .. |
| Chemicals and allied products..... | 3,478 | 68.31 | 162.8 | 42.0 | 1,994 | 39.23 | 100.1 | 39.2 |
| Miscellaneous industries..... | 2,930 | 59.57 | 135.1 | 44.1 | 1,735 | 35.29 | 86.8 | 40.6 |

Average Earnings of Supervisory and Office Employees.—The survey on weekly earnings and hours worked by production workers was expanded in 1946 to include supervisory and office employees. Earnings and hours worked are reported for male and female workers separately in 13 groups of hours ranging from 30 hours or fewer to 65 hours or more. The earnings reported for the week is the gross amount paid before deductions for

income tax, unemployment insurance, etc. Weekly and hourly earnings as well as the hours worked are thus obtained directly from the tabulated results of the establishments covered. The annual earnings, however, must be calculated as they are not obtained directly from the survey. To calculate annual earnings, the results on weekly earnings are correlated with the results obtained through the annual Census of Industry.

It is the intention in future to alternate the system of classifying employees. One year the basis will be the hours worked per week and the following year it will be the earnings per week. Information will thus be made available on both the number of hours worked and the range of weekly earnings of employees engaged in manufacturing.

Annual earnings of male supervisory and office employees in 1955 averaged \$4,636, weekly earnings \$93.50 and hourly earnings \$2.36. For female supervisory and office employees annual earnings averaged \$2,332, weekly earnings \$47.02 and hourly earnings \$1.24. Average annual earnings of all supervisory and office employees totalled \$3,990 in 1955, an increase of 76 p.c. since 1946. Weekly earnings at \$80.57 were 84 p.c. higher and hourly earnings at \$2.06 were 93 p.c. higher.

23.—Average Earnings of Male and Female Supervisory and Office Employees in Manufacturing Industries 1946-55

NOTE.—Figures are based on returns received from establishments employing 15 or more persons; figures for 1946 and 1947 refer to the last week in November whereas those for later years refer to the last week in October.

| Year | Average Earnings | | | Average Hours Worked per Week |
|---|------------------|--------|--------|-------------------------------|
| | Annual | Weekly | Hourly | |
| | \$ | \$ | cents | No. |
| Male Supervisory and Office Employees— | | | | |
| 1946..... | .. | 53.21 | 126.7 | 42.0 |
| 1947..... | .. | 60.21 | 146.1 | 41.2 |
| 1948..... | 3,147 | 63.47 | 154.4 | 41.1 |
| 1949..... | 3,317 | 65.37 | 160.2 | 40.8 |
| 1950..... | 3,507 | 69.35 | 172.5 | 40.2 |
| 1951..... | 3,852 | 77.55 | 193.9 | 40.0 |
| 1952..... | 3,985 | 82.60 | 207.0 | 39.9 |
| 1953..... | 4,327 | 86.43 | 218.8 | 39.5 |
| 1954..... | 4,499 | 90.99 | 230.9 | 39.4 |
| 1955..... | 4,636 | 93.50 | 236.1 | 39.6 |
| Female Supervisory and Office Employees— | | | | |
| 1946..... | .. | 25.91 | 65.6 | 39.5 |
| 1947..... | .. | 28.68 | 73.7 | 38.9 |
| 1948..... | 1,551 | 31.26 | 80.5 | 38.8 |
| 1949..... | 1,655 | 32.62 | 84.5 | 38.6 |
| 1950..... | 1,739 | 34.38 | 89.5 | 38.4 |
| 1951..... | 1,907 | 38.42 | 100.6 | 38.2 |
| 1952..... | 2,323 | 41.26 | 108.6 | 38.1 |
| 1953..... | 2,159 | 43.13 | 113.8 | 37.9 |
| 1954..... | 2,227 | 45.00 | 118.7 | 37.9 |
| 1955..... | 2,332 | 47.02 | 124.1 | 37.9 |
| All Supervisory and Office Employees— | | | | |
| 1946..... | 2,270 | 43.85 | 106.7 | 41.1 |
| 1947..... | 2,484 | 49.78 | 123.2 | 40.4 |
| 1948..... | 2,687 | 52.91 | 131.3 | 40.3 |
| 1949..... | 2,836 | 54.85 | 136.8 | 40.1 |
| 1950..... | 2,998 | 58.74 | 148.0 | 39.7 |
| 1951..... | 3,296 | 65.98 | 167.0 | 39.5 |
| 1952..... | 3,513 | 70.75 | 179.6 | 39.4 |
| 1953..... | 3,707 | 73.87 | 189.4 | 39.0 |
| 1954..... | 3,854 | 77.81 | 199.5 | 39.0 |
| 1955..... | 3,990 | 80.57 | 206.1 | 39.1 |

24.—Average Earnings of Supervisory and Office Employees in Manufacturing Industries, by Province and Industrial Group 1954 and 1955

| Province and Industrial Group | 1954 | | | | 1955 | | | |
|---|------------------|--------------|--------------|-------------------------------|------------------|--------------|--------------|-------------------------------|
| | Average Earnings | | | Average Hours Worked per Week | Average Earnings | | | Average Hours Worked per Week |
| | Annual | Weekly | Hourly | | Annual | Weekly | Hourly | |
| | \$ | \$ | cents | No. | \$ | \$ | cents | No. |
| Newfoundland..... | 2,687 | 71.39 | 175.4 | 40.7 | 2,793 | 73.59 | 177.8 | 41.4 |
| Prince Edward Island..... | 1,990 | 50.04 | 123.6 | 40.5 | 2,115 | 55.82 | 136.1 | 41.0 |
| Nova Scotia..... | 2,861 | 65.91 | 161.5 | 40.8 | 2,993 | 66.43 | 161.6 | 41.1 |
| New Brunswick..... | 3,117 | 66.18 | 164.2 | 40.3 | 3,125 | 68.26 | 168.5 | 40.5 |
| Quebec..... | 3,827 | 76.32 | 195.7 | 39.0 | 3,959 | 79.25 | 202.2 | 39.2 |
| Ontario..... | 4,030 | 79.67 | 205.3 | 38.8 | 4,156 | 82.47 | 212.6 | 38.8 |
| Manitoba..... | 3,525 | 68.30 | 173.8 | 39.3 | 3,632 | 70.57 | 178.2 | 39.6 |
| Saskatchewan..... | 2,925 | 63.96 | 157.9 | 40.5 | 3,065 | 66.24 | 164.0 | 40.4 |
| Alberta..... | 3,240 | 74.38 | 185.0 | 40.2 | 3,313 | 75.60 | 189.5 | 39.9 |
| British Columbia..... | 3,796 | 81.81 | 208.2 | 39.3 | 4,079 | 85.00 | 215.7 | 39.4 |
| Yukon and Northwest Territories.. | .. | .. | .. | .. | .. | .. | .. | .. |
| Canada..... | 3,854 | 77.81 | 199.5 | 39.0 | 3,990 | 80.57 | 206.1 | 39.1 |
| Foods and beverages..... | 3,476 | 70.78 | 178.3 | 39.7 | 3,566 | 73.42 | 184.0 | 39.9 |
| Tobacco and tobacco products..... | 4,565 | 79.50 | 211.4 | 37.6 | 4,732 | 84.12 | 222.5 | 37.8 |
| Rubber products..... | 3,977 | 74.07 | 189.4 | 39.1 | 4,056 | 75.13 | 193.1 | 38.9 |
| Leather products..... | 3,674 | 64.44 | 162.7 | 39.6 | 3,782 | 66.17 | 166.3 | 39.8 |
| Textile products (except clothing)..... | 3,951 | 72.94 | 185.6 | 39.3 | 4,027 | 75.10 | 187.3 | 40.1 |
| Clothing (including knitting mills)..... | 3,763 | 66.24 | 168.1 | 39.4 | 3,859 | 66.94 | 167.8 | 39.9 |
| Wood products..... | 2,597 | 74.01 | 181.0 | 40.9 | 2,879 | 76.34 | 186.7 | 40.9 |
| Paper products..... | 4,950 | 93.19 | 247.2 | 37.7 | 5,046 | 95.20 | 252.5 | 37.7 |
| Printing, publishing and allied trades..... | 3,258 | 67.30 | 178.5 | 37.7 | 3,412 | 68.54 | 182.3 | 37.6 |
| Iron and steel products..... | 4,212 | 78.30 | 201.3 | 38.9 | 4,274 | 81.53 | 209.6 | 38.9 |
| Transportation equipment..... | 4,391 | 84.40 | 209.4 | 40.3 | 4,553 | 87.76 | 218.3 | 40.2 |
| Non-ferrous metal products..... | 4,336 | 85.75 | 221.0 | 38.8 | 4,591 | 86.55 | 224.2 | 38.6 |
| Electrical apparatus and supplies..... | 4,052 | 78.36 | 202.0 | 38.8 | 4,067 | 83.39 | 214.9 | 38.8 |
| Non-metallic mineral products..... | 3,852 | 77.54 | 198.8 | 39.0 | 4,095 | 81.04 | 205.2 | 39.5 |
| Products of petroleum and coal..... | 4,265 | 101.28 | 275.2 | 36.8 | 4,458 | 105.76 | 286.6 | 36.9 |
| Chemicals and allied products..... | 4,083 | 79.70 | 209.7 | 38.0 | 4,206 | 82.41 | 215.2 | 38.3 |
| Miscellaneous industries..... | 3,681 | 73.34 | 189.0 | 38.8 | 3,900 | 75.26 | 192.5 | 39.1 |

25.—Average Earnings of Male and Female Supervisory and Office Employees in Manufacturing Industries, by Province and Industrial Group 1954 and 1955

| Year and Province | Male | | | | Female | | | |
|-----------------------------------|-------------------------|-------------------------|-------------------------|-------------------------------|-------------------------|-------------------------|-------------------------|-------------------------------|
| | Average Annual Earnings | Average Weekly Earnings | Average Hourly Earnings | Average Hours Worked per Week | Average Annual Earnings | Average Weekly Earnings | Average Hourly Earnings | Average Hours Worked per Week |
| | \$ | \$ | cents | No. | \$ | \$ | cents | No. |
| 1954 | | | | | | | | |
| Newfoundland..... | 2,922 | 80.34 | 196.4 | 40.9 | 1,365 | 37.55 | 94.1 | 39.9 |
| Prince Edward Island..... | 2,241 | 58.50 | 143.4 | 40.8 | 1,172 | 30.60 | 77.0 | 39.7 |
| Nova Scotia..... | 3,228 | 76.73 | 184.4 | 41.6 | 1,498 | 35.64 | 92.3 | 38.6 |
| New Brunswick..... | 3,593 | 77.96 | 190.6 | 40.9 | 1,660 | 35.98 | 92.5 | 38.9 |
| Quebec..... | 4,432 | 88.64 | 225.0 | 39.4 | 2,243 | 44.83 | 118.6 | 37.8 |
| Ontario..... | 4,774 | 93.91 | 239.6 | 39.2 | 2,334 | 45.88 | 121.7 | 37.7 |
| Manitoba..... | 4,083 | 79.10 | 199.2 | 39.7 | 2,050 | 39.67 | 104.4 | 38.0 |
| Saskatchewan..... | 3,305 | 74.68 | 183.9 | 40.6 | 1,844 | 41.65 | 103.9 | 40.1 |
| Alberta..... | 3,685 | 85.34 | 210.7 | 40.5 | 1,857 | 43.04 | 109.8 | 39.2 |
| British Columbia..... | 4,305 | 93.83 | 236.3 | 39.7 | 2,075 | 45.22 | 118.4 | 38.2 |
| Yukon and Northwest Territories.. | .. | .. | .. | .. | .. | .. | .. | .. |
| Canada, 1954..... | 4,499 | 90.99 | 230.9 | 39.4 | 2,227 | 45.00 | 118.7 | 37.9 |

25.—Average Earnings of Male and Female Supervisory and Office Employees in Manufacturing Industries, by Province and Industrial Group 1954 and 1955—concluded

| Year, Province and Industrial Group | Male | | | | Female | | | |
|--|------------------------------------|------------------------------------|------------------------------------|--|------------------------------------|------------------------------------|------------------------------------|--|
| | Average Annual Earn- ings | Average Weekly Earn- ings | Average Hourly Earn- ings | Average Hours Worked per Week | Average Annual Earn- ings | Average Weekly Earn- ings | Average Hourly Earn- ings | Average Hours Worked per Week |
| | \$ | \$ | cents | No. | \$ | \$ | cents | No. |
| 1954—concluded | | | | | | | | |
| Foods and beverages..... | 4,027 | 81.40 | 202.5 | 40.2 | 2,122 | 42.87 | 111.6 | 38.4 |
| Tobacco and tobacco products..... | 5,410 | 93.84 | 248.3 | 37.8 | 3,078 | 53.44 | 143.7 | 37.2 |
| Rubber products..... | 4,630 | 85.57 | 217.2 | 39.4 | 2,371 | 43.80 | 114.7 | 38.2 |
| Leather products..... | 4,339 | 77.23 | 190.7 | 40.5 | 2,187 | 38.96 | 102.8 | 37.9 |
| Textile products (except clothing)... | 4,796 | 88.28 | 220.7 | 40.0 | 2,269 | 41.80 | 110.0 | 38.0 |
| Clothing (including knitting mills)... | 4,662 | 84.43 | 209.0 | 40.4 | 2,308 | 41.82 | 110.1 | 38.0 |
| Wood products..... | 2,788 | 84.81 | 202.9 | 41.8 | 1,374 | 41.79 | 109.4 | 38.2 |
| Paper products..... | 5,863 | 109.16 | 288.0 | 37.9 | 2,603 | 48.45 | 130.9 | 37.0 |
| Printing, publishing and allied trades..... | 4,029 | 83.19 | 219.5 | 37.9 | 2,043 | 42.14 | 113.0 | 37.2 |
| Iron and steel products..... | 4,815 | 89.57 | 228.5 | 39.2 | 2,412 | 44.88 | 118.7 | 37.8 |
| Transportation equipment..... | 4,954 | 95.28 | 234.1 | 40.7 | 2,507 | 48.22 | 124.3 | 38.8 |
| Non-ferrous metal products..... | 4,994 | 97.90 | 249.7 | 39.2 | 2,372 | 46.53 | 124.1 | 37.5 |
| Electrical apparatus and supplies... | 4,736 | 90.46 | 231.4 | 39.1 | 2,449 | 46.73 | 122.7 | 38.1 |
| Non-metallic mineral products..... | 4,392 | 89.31 | 225.5 | 39.6 | 2,214 | 45.01 | 121.0 | 37.2 |
| Products of petroleum and coal.... | 4,944 | 116.07 | 313.7 | 37.0 | 2,309 | 54.20 | 150.1 | 36.1 |
| Chemicals and allied products..... | 4,929 | 94.51 | 247.4 | 38.2 | 2,460 | 47.16 | 125.4 | 37.6 |
| Miscellaneous industries..... | 4,464 | 89.72 | 226.6 | 39.6 | 2,210 | 44.42 | 118.5 | 37.5 |
| 1955 | | | | | | | | |
| Newfoundland..... | 3,028 | 81.87 | 196.8 | 41.6 | 1,475 | 39.85 | 97.7 | 40.8 |
| Prince Edward Island..... | 2,358 | 65.59 | 158.8 | 41.3 | 1,221 | 33.96 | 84.1 | 40.4 |
| Nova Scotia..... | 3,372 | 76.48 | 182.1 | 42.0 | 1,669 | 37.88 | 98.6 | 38.4 |
| New Brunswick..... | 3,579 | 79.35 | 192.1 | 41.3 | 1,700 | 37.70 | 98.7 | 38.2 |
| Quebec..... | 4,573 | 91.26 | 229.9 | 39.7 | 2,344 | 46.74 | 123.3 | 37.9 |
| Ontario..... | 4,885 | 96.52 | 245.6 | 39.3 | 2,433 | 48.03 | 127.1 | 37.8 |
| Manitoba..... | 4,203 | 81.04 | 202.1 | 40.1 | 2,114 | 40.76 | 106.7 | 38.2 |
| Saskatchewan..... | 3,472 | 76.35 | 187.6 | 40.7 | 1,951 | 42.88 | 108.3 | 39.6 |
| Alberta..... | 3,755 | 86.18 | 213.3 | 40.4 | 1,900 | 43.61 | 113.0 | 38.6 |
| British Columbia..... | 4,618 | 97.12 | 244.0 | 39.8 | 2,258 | 47.53 | 124.4 | 38.2 |
| Yukon and Northwest Territories.. | .. | .. | .. | .. | .. | .. | .. | .. |
| Canada, 1955 | 4,636 | 93.50 | 236.1 | 39.6 | 2,332 | 47.02 | 124.1 | 37.9 |
| Foods and beverages..... | 4,119 | 83.50 | 205.7 | 40.6 | 2,204 | 44.67 | 116.9 | 38.2 |
| Tobacco and tobacco products..... | 5,556 | 98.20 | 258.4 | 38.0 | 3,211 | 56.74 | 152.1 | 37.3 |
| Rubber products..... | 4,732 | 86.67 | 221.1 | 39.2 | 2,399 | 43.95 | 114.8 | 38.3 |
| Leather products..... | 4,473 | 78.49 | 192.4 | 40.8 | 2,268 | 39.81 | 105.0 | 37.9 |
| Textile products (except clothing)... | 4,874 | 88.74 | 217.0 | 40.9 | 2,354 | 42.83 | 112.4 | 38.1 |
| Clothing (including knitting mills)... | 4,742 | 83.18 | 203.9 | 40.8 | 2,471 | 43.34 | 112.3 | 38.6 |
| Wood products..... | 3,094 | 86.58 | 207.1 | 41.8 | 1,572 | 44.02 | 115.2 | 38.2 |
| Paper products..... | 5,985 | 111.47 | 293.3 | 38.0 | 2,663 | 49.55 | 133.9 | 37.0 |
| Printing, publishing and allied trades..... | 4,179 | 84.02 | 221.7 | 37.9 | 2,181 | 43.84 | 117.8 | 37.2 |
| Iron and steel products..... | 4,891 | 93.18 | 237.7 | 39.2 | 2,455 | 46.77 | 123.7 | 37.8 |
| Transportation equipment..... | 5,074 | 98.30 | 242.7 | 40.5 | 2,633 | 50.98 | 130.4 | 39.1 |
| Non-ferrous metal products..... | 5,272 | 99.21 | 253.7 | 39.1 | 2,589 | 48.75 | 130.7 | 37.3 |
| Electrical apparatus and supplies... | 4,991 | 95.57 | 244.4 | 39.1 | 2,472 | 50.38 | 132.2 | 38.1 |
| Non-metallic mineral products..... | 4,644 | 92.20 | 229.9 | 40.1 | 2,364 | 46.97 | 125.3 | 37.5 |
| Products of petroleum and coal.... | 5,148 | 121.46 | 327.4 | 37.1 | 2,322 | 54.77 | 150.9 | 36.3 |
| Chemicals and allied products..... | 5,034 | 96.63 | 250.3 | 38.6 | 2,582 | 49.53 | 131.4 | 37.7 |
| Miscellaneous industries..... | 4,713 | 91.55 | 229.4 | 39.9 | 2,338 | 45.45 | 120.6 | 37.7 |

A survey of weekly earnings of salaried employees, classified by (1) managerial and professional employees and (2) office workers, was made for the first time in 1951 and will be repeated every third year. Results of the 1954 survey, the latest currently available, are summarized in the 1956 Year Book at p. 660.

'Real' Earnings of Production Workers.—When the index number representing the average yearly earnings of production workers is divided by the consumer price index, on the same base, a measure of 'real' income is obtained. Index numbers for 1946-55 are given in Table 26.

26.—Average Yearly Earnings and Index Numbers of Earnings, Consumer Prices, and Real Earnings of Production Workers in Manufacturing Industries 1946-55

NOTE.—Figures for 1931-43 are given in the 1947 Year Book, p. 560, and those for 1944 and 1945 in the 1956 Year Book, p. 661.

| Year | Total Yearly Earnings | Production Workers | Average Yearly Earnings | Index Numbers (1949=100) | | |
|-----------|-----------------------------|-----------------------|-------------------------------|-------------------------------|----------------------------|---|
| | | | | Average Yearly Earnings | Consumer Price Index | Real Value of Average Yearly Earnings |
| | \$ | No. | \$ | | | |
| 1946..... | 1,329,811,478 | 877,150 | 1,516 | 73.3 | 77.5 | 94.6 |
| 1947..... | 1,611,232,166 | 940,650 | 1,713 | 82.9 | 84.8 | 97.8 |
| 1948..... | 1,876,773,231 | 957,491 | 1,960 | 94.8 | 97.0 | 97.7 |
| 1949..... | 1,963,462,720 | 949,656 | 2,067 | 100.0 | 100.0 | 100.0 |
| 1950..... | 2,078,634,086 | 952,244 | 2,183 | 105.6 | 102.9 | 102.6 |
| 1951..... | 2,459,566,313 | 1,010,588 | 2,434 | 117.8 | 113.7 | 103.6 |
| 1952..... | 2,713,714,909 | 1,025,355 | 2,647 | 128.1 | 116.5 | 110.0 |
| 1953..... | 2,940,338,939 | 1,053,226 | 2,792 | 135.1 | 115.5 | 117.0 |
| 1954..... | 2,821,586,476 | 989,030 | 2,853 | 138.0 | 116.2 | 118.8 |
| 1955..... | 2,995,267,448 | 1,010,992 | 2,963 | 143.3 | 116.4 | 123.1 |

Percentages of Earnings to Net Value of Products.—Table 27 shows the relation between earnings of employees in manufacturing industries and the value added by manufacture. Such added values constitute the real production of the manufacturing plant and are alone available for payment of salaries and wages, interest, rent, taxes, repairs and all other overhead charges that ordinarily must be met. The percentage of supervisory employee earnings declined steadily with the increasing manufacturing production from 1924 to 1929, while from 1931 to 1935 and again in 1938 and 1939, the percentage of such earnings to value added was above normal owing to decreased industrial activity. It should be borne in mind, however, that supervisory employees increased 343 p.c. during the period 1917-55 while production workers increased 87 p.c. The percentage of earnings of the latter has fluctuated much less than that of the former. The number of production workers may be adjusted more rapidly to the activity of the industry and wage levels likewise may be adjusted more readily to the price levels of the products. Of the increase in the net value of production since 1939, amounting to \$7,222,398,595, 47 p.c. was passed along in increased earnings.

27.—Percentage of Earnings to Value Added by Manufacture 1946-55

| Year | Value Added by Manufacture | Earnings of Supervisory and Office Employees | Earnings of Production Workers | Percentages of— | | |
|-----------|----------------------------------|--|--------------------------------------|---|---|--|
| | | | | Supervisory and Office Earnings to Value Added | Production Earnings to Value Added | Total Earnings to Value Added |
| | \$ | \$ | \$ | | | |
| 1946..... | 3,467,004,980 | 410,875,776 | 1,329,811,478 | 11.8 | 38.4 | 50.2 |
| 1947..... | 4,292,055,802 | 474,693,800 | 1,611,232,166 | 11.0 | 37.6 | 48.6 |
| 1948..... | 4,938,786,981 | 532,584,959 | 1,876,773,231 | 10.8 | 38.0 | 48.8 |
| 1949..... | 5,330,566,434 | 628,427,937 | 1,963,462,720 | 11.8 | 36.8 | 48.6 |
| 1950..... | 5,942,058,229 | 692,633,349 | 2,078,634,086 | 11.6 | 35.0 | 46.6 |
| 1951..... | 6,940,946,783 | 816,714,604 | 2,459,566,313 | 11.8 | 35.4 | 47.2 |
| 1952..... | 7,443,533,199 | 923,905,251 | 2,713,714,909 | 12.4 | 36.5 | 48.9 |
| 1953..... | 7,993,069,351 | 1,016,679,409 | 2,940,338,939 | 12.7 | 36.8 | 49.5 |
| 1954..... | 7,902,124,137 | 1,075,101,215 | 2,821,586,476 | 13.6 | 35.7 | 49.3 |
| 1955..... | 8,753,450,496 | 1,147,142,086 | 2,995,267,448 | 13.1 | 34.2 | 47.3 |

Subsection 2.—Capital and Repair Expenditure

The present series of statistics covering expenditure on fixed capital and repairs by manufacturing industries commences with the year 1944.

Capital expenditure by manufacturers in 1955 totalled \$344,700,000 for construction and \$601,800,000 for machinery and equipment, while \$513,200,000 went for repairs. Of the total capital expenditures amounting to \$946,500,000 in 1955, 15 p.c. was reported by the paper products group, 12 p.c. by products of petroleum and coal, 11 p.c. by foods and beverages, 10 p.c. by iron and steel products and 9 p.c. by non-ferrous metal products.

Of the eleven groups reporting capital expenditures of more than \$25,000,000 in 1955, seven reported greater expenditures than during 1954. Of the increases, paper products led the list with expenditures of \$138,900,000 in 1955 as compared with \$87,300,000 in 1954 followed by non-ferrous metal products with \$83,700,000 compared with \$53,600,000. The groups showing lower capital investment in 1955 than in 1954 were transportation equipment, electrical apparatus and supplies, foods and beverages, and textile products.

28.—Capital and Repair Expenditure by the Manufacturing Industries classified by Province and Industrial Group 1954 and 1955 with Totals for 1946-55

| Year, Province and Industrial Group | Capital Expenditure | | | Repair Expenditure | | |
|---|---------------------|--------------------------------------|--------------|--------------------|--------------------------------------|--------------|
| | Con- struction | Machin- ery and Equip- ment | Total | Con- struction | Machin- ery and Equip- ment | Total |
| | \$'000,000 | \$'000,000 | \$'000,000 | \$'000,000 | \$'000,000 | \$'000,000 |
| 1946..... | 132.2 | 205.0 | 337.2 | 56.8 | 164.3 | 221.1 |
| 1947..... | 184.7 | 343.2 | 527.9 | 62.4 | 210.7 | 273.1 |
| 1948..... | 184.8 | 394.2 | 579.0 | 78.9 | 253.9 | 332.8 |
| 1949..... | 156.6 | 379.2 | 535.8 | 66.7 | 267.2 | 333.9 |
| 1950..... | 135.4 | 367.1 | 502.5 | 67.6 | 279.0 | 346.6 |
| 1951..... | 267.6 | 525.0 | 792.6 | 85.0 | 337.0 | 422.0 |
| 1952..... | 343.6 | 629.0 | 972.6 | 95.2 | 363.5 | 458.7 |
| 1953..... | 324.5 | 644.5 | 969.0 | 94.6 | 385.5 | 480.1 |
| 1954 | | | | | | |
| Newfoundland..... | 3.5 | 5.5 | 9.0 | 1.9 | 4.2 | 6.1 |
| Prince Edward Island..... | — | 0.2 | 0.2 | 0.1 | 0.3 | 0.4 |
| Nova Scotia..... | 2.9 | 7.0 | 9.9 | 6.1 | 7.2 | 13.3 |
| New Brunswick..... | 2.0 | 6.5 | 8.5 | 1.4 | 8.4 | 9.8 |
| Quebec..... | 72.4 | 131.5 | 203.9 | 22.9 | 113.9 | 136.8 |
| Ontario..... | 124.3 | 292.0 | 416.3 | 46.0 | 196.9 | 242.9 |
| Manitoba..... | 15.1 | 11.9 | 27.0 | 3.7 | 8.2 | 11.9 |
| Saskatchewan..... | 9.8 | 3.5 | 13.3 | 2.6 | 2.3 | 4.9 |
| Alberta..... | 22.3 | 27.3 | 49.6 | 4.2 | 10.2 | 14.4 |
| British Columbia..... | 35.3 | 49.1 | 84.4 | 8.7 | 39.3 | 48.0 |
| Totals, 1954..... | 287.6 | 534.5 | 822.1 | 97.6 | 390.9 | 488.5 |
| Foods and beverages..... | 38.6 | 65.7 | 104.3 | 13.2 | 41.2 | 54.4 |
| Tobacco and tobacco products..... | 0.6 | 2.5 | 3.1 | 0.7 | 1.7 | 2.4 |
| Rubber products..... | 4.6 | 11.1 | 15.7 | 1.0 | 5.9 | 6.9 |
| Leather products..... | 0.5 | 1.8 | 2.3 | 0.6 | 2.0 | 2.6 |
| Textile products (except clothing)..... | 7.5 | 21.0 | 28.5 | 2.7 | 14.3 | 17.0 |
| Clothing (incl. knitting mills)..... | 2.2 | 7.6 | 9.8 | 1.3 | 4.0 | 5.3 |
| Wood products..... | 8.4 | 24.5 | 32.9 | 6.5 | 24.1 | 30.6 |
| Paper products..... | 21.6 | 65.7 | 87.3 | 8.2 | 75.1 | 83.3 |
| Printing, publishing and allied trades..... | 11.7 | 19.7 | 31.4 | 2.4 | 4.9 | 7.3 |
| Iron and steel products..... | 22.0 | 66.4 | 88.4 | 12.6 | 64.0 | 76.6 |
| Transportation equipment..... | 20.9 | 44.3 | 65.2 | 10.9 | 30.0 | 40.9 |
| Non-ferrous metal products..... | 20.3 | 33.3 | 53.6 | 8.7 | 40.1 | 48.8 |
| Electrical apparatus and supplies..... | 11.7 | 20.0 | 31.7 | 3.1 | 13.6 | 16.7 |
| Non-metallic mineral products..... | 19.6 | 23.6 | 43.2 | 2.8 | 23.8 | 26.6 |
| Products of petroleum and coal..... | 79.6 | 14.0 | 93.6 | 15.7 | 11.5 | 27.2 |
| Chemicals and allied products..... | 15.1 | 24.7 | 39.8 | 6.2 | 31.4 | 37.6 |
| Miscellaneous industries..... | 2.7 | 4.5 | 7.2 | 1.0 | 3.3 | 4.3 |
| Capital items charged to operating expense..... | — | 84.1 | 84.1 | — | — | — |

28.—Capital and Repair Expenditure by the Manufacturing Industries classified by Province and Industrial Group 1954 and 1955 with Totals for 1946-55—concluded

| Year, Province and Industrial Group | Capital Expenditure | | | Repair Expenditure | | |
|---|---------------------|--------------------------------------|--------------|--------------------|--------------------------------------|--------------|
| | Con- struction | Machin- ery and Equip- ment | Total | Con- struction | Machin- ery and Equip- ment | Total |
| | \$'000,000 | \$'000,000 | \$'000,000 | \$'000,000 | \$'000,000 | \$'000,000 |
| 1955 | | | | | | |
| Newfoundland..... | 2.5 | 6.6 | 9.1 | 1.3 | 5.4 | 6.7 |
| Prince Edward Island..... | 0.1 | 0.4 | 0.5 | 0.1 | 0.2 | 0.3 |
| Nova Scotia..... | 15.1 | 7.0 | 22.1 | 5.5 | 8.2 | 13.7 |
| New Brunswick..... | 2.5 | 9.8 | 12.3 | 2.0 | 8.4 | 10.4 |
| Quebec..... | 96.3 | 167.8 | 264.1 | 26.2 | 116.0 | 142.2 |
| Ontario..... | 121.1 | 290.7 | 411.8 | 43.2 | 209.6 | 252.8 |
| Manitoba..... | 12.6 | 15.9 | 28.5 | 3.9 | 7.6 | 11.5 |
| Saskatchewan..... | 5.2 | 3.6 | 8.8 | 2.9 | 1.9 | 4.8 |
| Alberta..... | 39.6 | 21.8 | 61.4 | 5.5 | 11.1 | 16.6 |
| British Columbia..... | 49.7 | 78.2 | 127.9 | 9.5 | 44.7 | 54.2 |
| Totals, 1955..... | 344.7 | 601.8 | 946.5 | 100.1 | 413.1 | 513.2 |
| Foods and beverages..... | 38.5 | 65.2 | 103.7 | 12.7 | 43.6 | 56.3 |
| Tobacco and tobacco products..... | 1.6 | 2.8 | 4.4 | 0.9 | 1.7 | 2.6 |
| Rubber products..... | 3.0 | 12.1 | 15.1 | 0.9 | 6.8 | 7.7 |
| Leather products..... | 0.5 | 1.8 | 2.3 | 0.6 | 2.3 | 2.9 |
| Textile products (except clothing)..... | 7.6 | 20.4 | 28.0 | 2.9 | 16.6 | 19.5 |
| Clothing (incl. knitting mills)..... | 1.4 | 7.8 | 9.2 | 1.2 | 3.8 | 5.0 |
| Wood products..... | 12.1 | 30.9 | 43.0 | 7.6 | 29.3 | 36.9 |
| Paper products..... | 33.1 | 105.8 | 138.9 | 8.9 | 75.1 | 84.0 |
| Printing, publishing and allied trades..... | 6.4 | 17.7 | 24.1 | 2.2 | 4.4 | 6.6 |
| Iron and steel products..... | 27.0 | 68.2 | 95.2 | 12.6 | 75.7 | 88.3 |
| Transportation equipment..... | 20.2 | 34.1 | 54.3 | 10.6 | 28.2 | 38.8 |
| Non-ferrous metal products..... | 37.3 | 46.4 | 83.7 | 8.2 | 43.8 | 52.0 |
| Electrical apparatus and supplies..... | 8.1 | 20.4 | 28.5 | 2.7 | 13.3 | 16.0 |
| Non-metallic mineral products..... | 22.2 | 25.4 | 47.6 | 3.0 | 27.0 | 30.0 |
| Products of petroleum and coal..... | 100.4 | 8.7 | 109.1 | 19.1 | 8.1 | 27.2 |
| Chemicals and allied products..... | 21.6 | 34.7 | 56.3 | 4.7 | 30.1 | 34.8 |
| Miscellaneous industries..... | 3.7 | 7.1 | 10.8 | 1.3 | 3.3 | 4.6 |
| Capital items charged to operating expense..... | — | 92.3 | 92.3 | — | — | — |

Subsection 3.—Size of Manufacturing Establishments

The size of a manufacturing establishment is generally measured either by the value of factory shipments or by the number of employees but each of these methods has its limitations. The former measure has to be adjusted for changes in the price level and, as between industries, it makes those in which the cost of raw materials is relatively high appear to operate on a larger scale. The latter takes no account of the differences in capital equipment at different times or in various industries and obviously the increased use of machinery may lead to an increase in production concurrently with a decrease in number of employees.

Size as Measured by Value of Factory Shipments.—In 1946, after heavy wartime production had ceased and reconversion had barely begun, there were 1,442 manufacturing establishments, each with an output of \$1,000,000 or over. Their combined production was valued at \$5,377,870,217 and accounted for 66.9 p.c. of the total for all manufacturing plants. By 1949, the number of factories in that category had increased to 1,926 and the proportion of their production to the total was 74.4 p.c. As a result of the tremendous industrial expansion and the increase in prices of the 1950's, the number of plants with shipments valued at over \$1,000,000 increased to 2,729 in 1955. These plants shipped 79.7 p.c. of the total in that year.

29.—Manufacturing Establishments and Total and Average Production classified by Value of Product Group 1946, 1949, 1954 and 1955

| Gross Value Group ¹ | Estab- lish- ments | Total Production | Average per Estab- lishment | Estab- lish- ments | Total Production | Average per Estab- lishment |
|------------------------------------|--------------------------|-----------------------|--------------------------------------|--------------------------|-----------------------|--------------------------------------|
| | 1946 | | | 1949 | | |
| | No. | \$ | \$ | No. | \$ | \$ |
| Under \$25,000..... | 14,478 | 138,504,608 | 9,566 | 16,176 | 145,907,685 | 9,020 |
| \$ 25,000 but under \$ 50,000..... | 4,524 | 162,355,572 | 35,888 | 4,884 | 174,899,010 | 35,810 |
| 50,000 " 100,000..... | 3,958 | 282,976,378 | 71,495 | 4,487 | 320,878,071 | 71,513 |
| 100,000 " 200,000..... | 3,060 | 433,302,078 | 141,602 | 3,630 | 514,921,581 | 141,852 |
| 200,000 " 500,000..... | 2,620 | 824,481,340 | 314,687 | 3,195 | 1,000,486,294 | 313,141 |
| 500,000 " 1,000,000..... | 1,167 | 816,202,278 | 699,402 | 1,494 | 1,041,235,578 | 696,945 |
| 1,000,000 " 5,000,000..... | 1,183 | 2,376,006,853 | 2,008,459 | 1,505 | 3,164,936,378 | 2,102,948 |
| 5,000,000 or over..... | 259 | 3,001,863,364 | 11,590,206 | 421 | 6,116,328,703 | 14,528,097 |
| Totals and Averages..... | 31,249 | 8,035,692,471 | 257,150 | 35,792 | 12,479,593,300 | 348,670 |
| | 1954 ² | | | 1955 ² | | |
| | No. | \$ | \$ | No. | \$ | \$ |
| Under \$25,000..... | 15,734 | 145,633,669 | 9,256 | 15,327 | 143,480,957 | 9,362 |
| \$ 25,000 but under \$ 50,000..... | 5,278 | 189,699,244 | 35,942 | 5,112 | 184,847,245 | 36,159 |
| 50,000 " 100,000..... | 4,705 | 377,580,457 | 71,749 | 4,781 | 343,512,650 | 60,933 |
| 100,000 " 200,000..... | 4,070 | 537,543,265 | 141,903 | 4,250 | 608,414,152 | 143,156 |
| 200,000 " 500,000..... | 3,833 | 1,209,151,102 | 315,458 | 3,970 | 1,261,916,569 | 317,863 |
| 500,000 " 1,000,000..... | 1,883 | 1,390,925,128 | 738,675 | 2,013 | 1,411,584,589 | 701,234 |
| 1,000,000 " 5,000,000..... | 1,958 | 4,065,420,589 | 2,076,313 | 2,101 | 4,364,363,277 | 2,077,279 |
| 5,000,000 or over..... | 567 | 9,638,574,050 | 16,999,249 | 628 | 11,195,814,372 | 17,827,730 |
| Totals and Averages..... | 38,028 | 17,554,527,504 | 461,621 | 38,182 | 19,513,933,811 | 511,077 |

¹ In 1952 gross value of products was replaced by value of factory shipments.² Includes Newfoundland.

Size as Measured by Number of Employees.—In 1946 the 311 establishments employing 500 hands or over accounted for 32.3 p.c. of the total number of employees engaged in manufacturing. In 1955 there were upwards of 380 plants with more than 500 employees, 61 of them with over 1,500. The 380 plants employed 35.4 p.c. of the total workers in all manufacturing establishments.

30.—Establishments and Employees in Manufactures classified by Number of Employees per Establishment 1946, 1949, 1954 and 1955

| Employee Group | Estab- lishments | Employees | Average per Estab- lishment | Estab- lishments | Employees | Average per Estab- lishment |
|---------------------------------|---------------------|------------------|-----------------------------------|---------------------|------------------|-----------------------------------|
| | 1946 | | | 1949 | | |
| | No. | No. | No. | No. | No. | No. |
| Under 5 employees..... | 13,810 | 32,664 | 2.4 | 16,647 | 34,865 | 2.1 |
| 5 to 14 "..... | 8,190 | 67,530 | 8.2 | 9,133 | 75,482 | 8.3 |
| 15 " 49 "..... | 5,488 | 146,939 | 26.7 | 5,967 | 159,012 | 26.7 |
| 50 " 99 "..... | 1,759 | 122,919 | 69.8 | 1,905 | 132,069 | 69.3 |
| 100 " 199 "..... | 1,032 | 144,240 | 139.7 | 1,114 | 156,084 | 140.1 |
| 200 " 499 "..... | 659 | 202,114 | 306.7 | 694 | 213,130 | 307.1 |
| 500 " 999 "..... | 311 | 341,750 | 1,098.9 | 332 | 391,455 | 1,179.1 |
| 1,000 and over..... | — | — | — | — | 9,110 | — |
| Head offices ¹ | — | — | — | — | — | — |
| Totals and Averages..... | 31,249 | 1,058,156 | 33.9 | 35,792 | 1,171,297 | 32.7 |

¹ Includes only those head offices that are not located at a plant.

30.—Establishments and Employees in Manufactures classified by Number of Employees per Establishment 1946, 1949, 1954 and 1955—concluded

| Employee Group | Estab- lishments | Employees | Average per Estab- lishment | Estab- lishments | Employees | Average per Estab- lishment |
|---------------------------------|---------------------|------------------|-----------------------------------|---------------------|------------------|-----------------------------------|
| | 1954 ² | | | 1955 ² | | |
| | No. | No. | No. | No. | No. | No. |
| Under 5 employees..... | 17,127 | 37,064 | 2.2 | 16,762 | 36,340 | 2.2 |
| 5 to 14 "..... | 9,705 | 79,733 | 8.2 | 9,864 | 81,471 | 8.3 |
| 15 " 49 "..... | 6,235 | 166,443 | 26.7 | 6,340 | 169,575 | 26.7 |
| 50 " 99 "..... | 2,055 | 141,035 | 68.6 | 2,082 | 144,411 | 69.4 |
| 100 " 199 "..... | 1,130 | 156,362 | 138.4 | 1,175 | 163,091 | 138.8 |
| 200 " 499 "..... | 726 | 221,172 | 304.6 | 739 | 227,667 | 308.1 |
| 500 " 999 "..... | 242 | 168,374 | 695.8 | 243 | 167,720 | 690.2 |
| 1,000 " 1,499 "..... | 66 | 80,003 | 1,212.2 | 76 | 91,840 | 1,208.4 |
| 1,500 and over..... | 62 | 201,973 | 3,257.6 | 61 | 200,413 | 3,285.5 |
| Head offices ¹ | — | 15,807 | — | — | 15,933 | — |
| Not classifiable..... | 680 | — | — | 840 | — | — |
| Totals and Averages..... | 38,028 | 1,267,966 | 33.3 | 38,182 | 1,298,461 | 34.0 |

¹ Includes only those head offices that are not located at a plant.² Includes Newfoundland.
31.—Manufacturing Establishments classified by Number of Employees and by Province 1954 and 1955

| Year and Province or Territory | Employees— | | | | | |
|--------------------------------------|-----------------|------------------|------------------|----------------------|---------------------|---------------|
| | Up to 499 | 500 to 799 | 800 to 999 | 1,000 to 1,499 | 1,500 or Over | Total |
| | No. | No. | No. | No. | No. | No. |
| 1954 | | | | | | |
| Newfoundland..... | 787 | 1 | — | 1 | 1 | 790 |
| Prince Edward Island..... | 209 | — | — | — | — | 209 |
| Nova Scotia..... | 1,520 | — | — | — | 6 | 1,526 |
| New Brunswick..... | 1,050 | 3 | 1 | 3 | — | 1,057 |
| Quebec..... | 12,063 | 57 | 26 | 26 | 19 | 12,191 |
| Ontario..... | 12,996 | 94 | 28 | 28 | 32 | 13,178 |
| Manitoba..... | 1,513 | 4 | — | 3 | 2 | 1,522 |
| Saskatchewan..... | 1,010 | — | — | — | — | 1,010 |
| Alberta..... | 2,045 | 5 | 1 | 1 | — | 2,052 |
| British Columbia..... | 4,434 | 14 | 8 | 4 | 2 | 4,462 |
| Yukon and Northwest Territories..... | 31 | — | — | — | — | 31 |
| Canada, 1954..... | 37,658 | 178 | 64 | 66 | 62 | 38,028 |
| 1955 | | | | | | |
| Newfoundland..... | 782 | 1 | — | 1 | 1 | 785 |
| Prince Edward Island..... | 204 | — | — | — | — | 204 |
| Nova Scotia..... | 1,519 | 1 | 2 | — | 2 | 1,524 |
| New Brunswick..... | 1,045 | 3 | 1 | 3 | — | 1,052 |
| Quebec..... | 12,056 | 62 | 23 | 32 | 21 | 12,194 |
| Ontario..... | 13,095 | 94 | 23 | 32 | 32 | 13,276 |
| Manitoba..... | 1,539 | 5 | — | 3 | 2 | 1,549 |
| Saskatchewan..... | 990 | — | — | — | — | 990 |
| Alberta..... | 2,119 | 5 | 1 | 1 | — | 2,126 |
| British Columbia..... | 4,457 | 12 | 10 | 4 | 3 | 4,486 |
| Yukon and Northwest Territories..... | 26 | — | — | — | — | 26 |
| Canada, 1955..... | 37,802 | 183 | 66 | 76 | 61 | 38,182 |

Size of Establishments in Leading Industries.—Table 32 shows the degree of concentration in some of the leading industries of Canada. Concentration is extremely marked in the motor vehicle, non-ferrous metal smelting and refining, aircraft and parts, railway rolling-stock, pulp and paper, rubber goods, cotton yarn and cloth, and primary iron and steel industries. On the other hand, the degree of concentration is low in such industries as women's factory clothing, furniture, butter and cheese, miscellaneous food preparations and fruit and vegetable preparations.

32.—Percentage Importance of Establishments, each Employing 200 or more Persons, in the 25 Leading Industries 1954 and 1955

| Year and Industry | | Number of Establishments Employing 200 or more Persons | Percentage of Total Establishments in the Industry | Percentage of Total Shipments in the Industry |
|-------------------|--|--|--|---|
| 1954 | | | | |
| 1 | Pulp and paper..... | 77 | 61.6 | 94.3 |
| 2 | Non-ferrous metal smelting and refining..... | 18 | 81.8 | 99.3 |
| 3 | Petroleum products..... | 16 | 26.2 | 83.0 |
| 4 | Slaughtering and meat packing..... | 31 | 20.1 | 75.2 |
| 5 | Motor vehicles..... | 10 | 50.0 | 98.5 |
| 6 | Sawmills..... | 22 | 0.3 | 27.2 |
| 7 | Butter and cheese..... | 17 | 1.2 | 19.0 |
| 8 | Primary iron and steel..... | 14 | 27.5 | 91.6 |
| 9 | Aircraft and parts..... | 15 | 31.9 | 97.0 |
| 10 | Miscellaneous food preparations..... | 7 | 2.1 | 28.1 |
| 11 | Railway rolling-stock..... | 23 | 63.9 | 96.6 |
| 12 | Bread and other bakery products..... | 26 | 1.0 | 31.4 |
| 13 | Miscellaneous electrical apparatus and supplies..... | 22 | 14.0 | 78.5 |
| 14 | Rubber goods, including footwear..... | 21 | 28.8 | 91.8 |
| 15 | Printing and publishing..... | 32 | 4.0 | 68.1 |
| 16 | Clothing, men's factory..... | 33 | 5.7 | 37.2 |
| 17 | Motor vehicle parts..... | 20 | 11.1 | 75.8 |
| 18 | Machinery, industrial..... | 28 | 9.0 | 55.1 |
| 19 | Furniture..... | 16 | 0.9 | 16.1 |
| 20 | Sheet metal products..... | 25 | 7.3 | 58.6 |
| 21 | Flour mills..... | 10 | 11.8 | 57.3 |
| 22 | Radios, television sets, and parts..... | 23 | 19.2 | 87.5 |
| 23 | Clothing, women's factory..... | 5 | 0.6 | 4.5 |
| 24 | Fruit and vegetable preparations..... | 4 | 0.9 | 27.9 |
| 25 | Machinery, heavy electrical..... | 18 | 28.6 | 87.1 |
| 1955 | | | | |
| 1 | Pulp and paper..... | 77 | 61.6 | 94.1 |
| 2 | Non-ferrous metal smelting and refining..... | 18 | 75.0 | 97.7 |
| 3 | Petroleum products..... | 17 | 27.9 | 84.1 |
| 4 | Motor vehicles..... | 10 | 66.7 | 99.2 |
| 5 | Slaughtering and meat packing..... | 32 | 20.9 | 78.3 |
| 6 | Sawmills..... | 24 | 0.3 | 28.6 |
| 7 | Primary iron and steel..... | 14 | 28.0 | 90.8 |
| 8 | Butter and cheese..... | 17 | 1.2 | 19.8 |
| 9 | Aircraft and parts..... | 15 | 28.8 | 96.5 |
| 10 | Miscellaneous electrical apparatus and supplies..... | 24 | 15.3 | 69.2 |
| 11 | Rubber goods, including footwear..... | 25 | 30.5 | 92.9 |
| 12 | Miscellaneous food preparations..... | 4 | 1.3 | 21.6 |
| 13 | Bread and other bakery products..... | 26 | 1.0 | 31.1 |
| 14 | Motor vehicle parts..... | 21 | 11.2 | 75.4 |
| 15 | Printing and publishing..... | 32 | 4.1 | 68.8 |
| 16 | Telecommunication equipment..... | 24 | 19.1 | 84.9 |
| 17 | Furniture..... | 15 | 0.8 | 16.7 |
| 18 | Sheet metal products..... | 23 | 6.4 | 55.8 |
| 19 | Machinery, industrial..... | 30 | 9.3 | 56.2 |
| 20 | Clothing, men's factory..... | 31 | 5.4 | 36.0 |
| 21 | Railway rolling-stock..... | 21 | 65.6 | 96.5 |
| 22 | Sash, door and planing mills..... | 1 | 1 | 1 |
| 23 | Fruit and vegetable preparations..... | 6 | 1.3 | 29.1 |
| 24 | Cotton yarn and cloth..... | 25 | 50.0 | 92.2 |
| 25 | Clothing, women's factory..... | 6 | 0.8 | 4.8 |

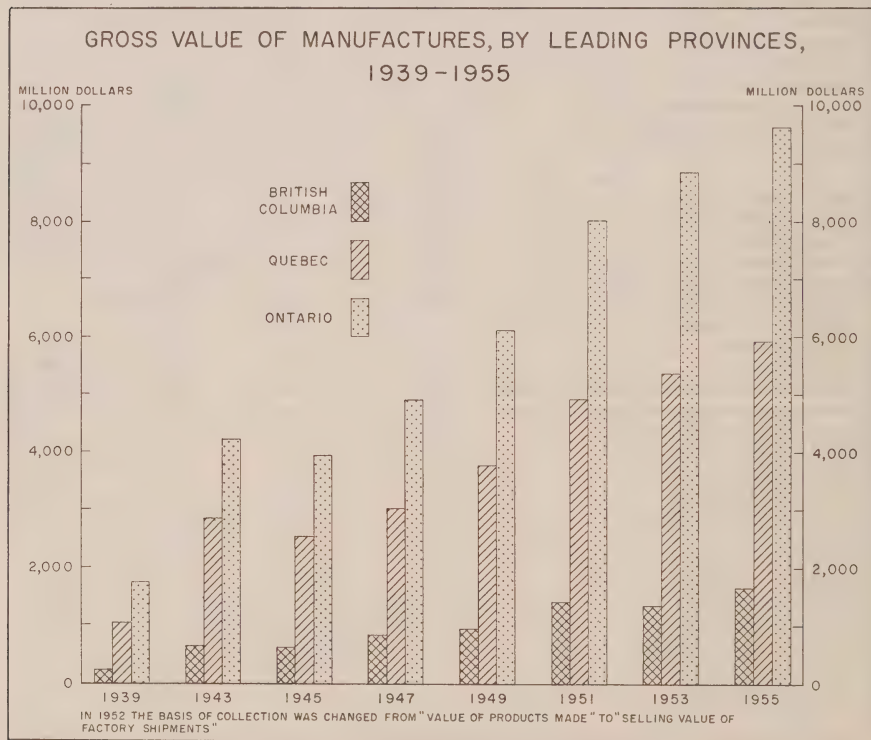
1 For confidential reasons these figures cannot be published since there are fewer than three establishments.

PART III.—PROVINCIAL AND LOCAL DISTRIBUTION OF MANUFACTURING PRODUCTION

Section 1.—Provincial Distribution of Manufacturing Production

This Section shows the distribution and concentration of the manufacturing industries in each province followed by a general analysis of the leading industries in the individual provinces. Ontario and Quebec are by far the most important manufacturing provinces of Canada. Their combined production in 1955 amounted to \$15,540,000,000 or 80 p.c. of the total factory shipments of manufactured products. The water power and other varied resources of the two provinces and their nearness to the larger markets of Canada and the United States have all contributed to this progress.

Table 1 shows the outstanding predominance of Ontario and Quebec in each industrial group. Quebec leads in the manufacture of tobacco and tobacco products, textiles and clothing, paper products and products of petroleum and coal. In each of the other groups Ontario has the greater production of the two provinces. In the production of wood products British Columbia with 43 p.c. of the total holds the dominant position, outranking both Ontario and Quebec which account for 24 and 21 p.c. respectively of the total. In each of the other groups Ontario and Quebec lead by a wide margin.



1.—Summary Statistics of Manufactures of each Province classified by Industrial Group 1955

NOTE.—Comparable figures for 1954 have not been published in the Canada Year Book but are available from DBS publication *General Review of the Manufacturing Industries of Canada 1954*.

| Province and Industrial Group | Estab- lish- ments | Em- ployees | Earnings | Cost at Plant of Materials Used | Value Added by Manufacture | Selling Value of Factory Shipments |
|---|--------------------------|----------------|-------------------|---------------------------------------|----------------------------------|--|
| | No. | No. | \$ | \$ | \$ | \$ |
| Newfoundland | | | | | | |
| Foods and beverages..... | 79 | 3,778 | 7,120,919 | 14,935,828 | 16,975,709 | 32,577,013 |
| Leather products..... | 5 | 157 | 320,820 | 347,387 | 303,624 | 424,149 |
| Textiles..... | 5 | 92 | 225,664 | 362,942 | 214,630 | 691,620 |
| Clothing..... | 3 | 144 | 229,470 | 228,421 | 291,931 | 520,551 |
| Wood products..... | 618 | 1,592 | 1,915,560 | 4,137,104 | 3,109,705 | 7,414,604 |
| Paper products..... | 2 | 3,380 | 15,223,920 | 26,099,089 | 32,667,953 | 62,615,842 |
| Printing, publishing and allied trades | 37 | 420 | 1,148,987 | 657,593 | 1,975,721 | 2,682,303 |
| Iron and steel products..... | 9 | 295 | 822,385 | 730,500 | 1,609,702 | 2,386,439 |
| Transportation equipment..... | 4 | 12 | 23,680 | 16,800 | 30,652 | 50,222 |
| Electrical apparatus and supplies..... | 1 | 1 | 1 | 1 | 1 | 1 |
| Non-metallic mineral products..... | 13 | 340 | 1,180,549 | 1,398,780 | 2,536,342 | 4,333,494 |
| Products of petroleum and coal..... | 1 | 1 | 1 | 1 | 1 | 1 |
| Chemicals and allied products..... | 5 | 78 | 224,468 | 742,303 | 689,105 | 1,429,900 |
| Miscellaneous industries ³ | 5 | 73 | 168,046 | 258,109 | 181,848 | 452,899 |
| Totals, Newfoundland..... | 785 | 10,361 | 28,604,468 | 49,914,856 | 60,586,922 | 115,579,036 |
| Prince Edward Island | | | | | | |
| Foods and beverages..... | 96 | 1,141 | 1,972,077 | 13,912,837 | 4,167,143 | 18,440,442 |
| Tobacco and tobacco products..... | 4 | 4 | 4 | 4 | 4 | 4 |
| Leather products..... | 4 | 4 | 4 | 4 | 4 | 4 |
| Textiles..... | 4 | 73 | 134,254 | 850,245 | 424,493 | 1,251,495 |
| Wood products..... | 81 | 272 | 322,300 | 670,534 | 520,842 | 1,224,353 |
| Printing, publishing and allied trades | 10 | 158 | 352,535 | 154,702 | 585,867 | 755,802 |
| Iron and steel products..... | 3 | 24 | 62,848 | 64,071 | 73,108 | 138,600 |
| Transportation equipment..... | 4 | 4 | 4 | 4 | 4 | 4 |
| Non-metallic mineral products..... | 4 | 17 | 31,720 | 22,440 | 50,447 | 78,845 |
| Chemicals and allied products..... | 4 | 4 | 4 | 4 | 4 | 4 |
| All other groups ³ | 6 | 84 | 198,351 | 1,128,206 | 609,760 | 1,739,794 |
| Totals, Prince Edward Island.. | 204 | 1,769 | 3,074,085 | 16,803,035 | 6,431,660 | 23,628,831 |
| Nova Scotia | | | | | | |
| Foods and beverages..... | 396 | 8,350 | 16,214,923 | 59,672,469 | 34,108,760 | 96,590,160 |
| Leather products..... | 4 | 115 | 194,218 | 245,185 | 283,038 | 533,096 |
| Textiles..... | 11 | 447 | 1,081,289 | 2,757,402 | 2,367,355 | 5,324,675 |
| Knitting mills..... | 5 | 752 | 1,403,401 | 3,147,421 | 2,147,858 | 5,537,785 |
| Clothing..... | 10 | 445 | 641,525 | 1,764,177 | 959,021 | 2,717,571 |
| Wood products..... | 779 | 4,758 | 7,461,182 | 21,280,823 | 14,102,614 | 36,018,778 |
| Paper products..... | 7 | 1,457 | 4,840,314 | 9,030,538 | 13,291,340 | 23,785,924 |
| Printing, publishing and allied trades | 136 | 1,307 | 3,547,130 | 2,403,747 | 6,683,315 | 9,211,577 |
| Iron and steel products..... | 53 | 6,121 | 20,649,001 | 29,186,877 | 28,144,278 | 65,038,123 |
| Transportation equipment..... | 59 | 4,683 | 14,311,177 | 14,979,681 | 18,644,372 | 34,233,709 |
| Electrical apparatus and supplies..... | 1 | 1 | 1 | 1 | 1 | 1 |
| Non-metallic mineral products..... | 29 | 584 | 1,569,797 | 1,725,577 | 3,732,135 | 6,058,538 |
| Products of petroleum and coal..... | 1 | 1 | 1 | 1 | 1 | 1 |
| Chemicals and allied products..... | 16 | 284 | 808,994 | 3,104,615 | 2,392,379 | 5,529,221 |
| Miscellaneous industries ³ | 19 | 915 | 3,832,972 | 25,895,907 | 12,789,958 | 40,550,533 |
| Totals, Nova Scotia..... | 1,524 | 30,218 | 76,555,923 | 175,194,419 | 139,646,423 | 331,129,690 |
| New Brunswick | | | | | | |
| Foods and beverages..... | 346 | 6,687 | 12,797,555 | 73,176,538 | 31,945,301 | 107,754,469 |
| Leather products..... | 8 | 308 | 604,333 | 1,082,096 | 1,131,332 | 2,224,019 |
| Textiles..... | 13 | 670 | 1,361,428 | 1,177,243 | 1,753,154 | 3,070,618 |
| Knitting mills..... | 1 | 1 | 1 | 1 | 1 | 1 |
| Clothing..... | 6 | 151 | 191,281 | 255,774 | 298,608 | 570,931 |
| Wood products..... | 501 | 3,950 | 7,177,099 | 19,188,679 | 12,571,091 | 32,381,496 |
| Paper products..... | 16 | 4,428 | 17,283,791 | 45,355,288 | 44,988,192 | 97,980,345 |
| Printing, publishing and allied trades | 73 | 959 | 2,421,013 | 1,519,498 | 4,275,813 | 5,863,788 |

For footnotes, see end of table, p. 684.

1.—Summary Statistics of Manufactures of each Province classified by Industrial Group 1955—continued

| Province and Industrial Group | Estab- lish- ments | Em- ployees | Earnings | Cost at Plant of Materials Used | Value Added by Manufacture | Selling Value of Factory Shipments |
|---|--------------------------|----------------|----------------------|---------------------------------------|----------------------------------|--|
| | No. | No. | \$ | \$ | \$ | \$ |
| New Brunswick—concluded | | | | | | |
| Iron and steel products..... | 31 | 1,205 | 3,378,842 | 5,162,096 | 6,091,127 | 11,517,473 |
| Transportation equipment..... | 10 | 2,473 | 7,028,876 | 6,928,950 | 8,904,393 | 16,173,716 |
| Non-ferrous metal products..... | 1 | 1 | 1 | 1 | 1 | 1 |
| Non-metallic mineral products..... | 24 | 539 | 1,421,816 | 1,545,417 | 3,591,894 | 6,237,887 |
| Products of petroleum and coal..... | 1 | 1 | 1 | 1 | 1 | 1 |
| Chemicals and allied products..... | 7 | 131 | 441,001 | 3,116,055 | 1,138,912 | 4,211,083 |
| Miscellaneous industries ³ | 17 | 933 | 2,576,310 | 2,397,585 | 4,118,397 | 6,843,225 |
| Totals, New Brunswick | 1,052 | 22,434 | 56,683,345 | 160,905,219 | 120,808,214 | 294,829,050 |
| Quebec | | | | | | |
| Foods and beverages..... | 2,622 | 46,146 | 123,843,253 | 618,697,977 | 323,979,671 | 949,487,854 |
| Tobacco and tobacco products..... | 33 | 7,385 | 24,397,707 | 82,827,631 | 74,611,267 | 156,559,853 |
| Rubber products..... | 32 | 6,745 | 19,697,454 | 24,780,045 | 35,055,289 | 59,800,237 |
| Leather products..... | 344 | 16,190 | 33,419,597 | 48,584,762 | 51,477,352 | 100,729,618 |
| Textiles..... | 455 | 39,496 | 105,464,027 | 229,891,103 | 162,823,961 | 396,695,292 |
| Knitting mills..... | 147 | 10,193 | 21,302,996 | 33,375,387 | 36,212,112 | 70,112,820 |
| Clothing..... | 1,608 | 56,508 | 118,981,924 | 231,827,113 | 203,306,663 | 436,026,753 |
| Wood products..... | 3,215 | 32,965 | 73,803,262 | 154,623,085 | 125,214,942 | 283,743,769 |
| Paper products..... | 198 | 35,851 | 136,637,150 | 303,993,776 | 339,683,881 | 688,374,500 |
| Printing, publishing and allied trades | 1,247 | 19,182 | 62,325,924 | 56,730,493 | 112,151,873 | 170,064,348 |
| Iron and steel products..... | 679 | 41,501 | 142,368,167 | 201,220,053 | 254,316,898 | 463,989,550 |
| Transportation equipment..... | 118 | 31,197 | 110,463,879 | 121,672,511 | 155,564,474 | 281,343,672 |
| Non-ferrous metal products..... | 187 | 18,919 | 71,633,330 | 434,718,997 | 191,270,904 | 660,250,574 |
| Electrical apparatus and supplies..... | 98 | 20,468 | 73,705,658 | 120,114,280 | 125,195,684 | 248,149,015 |
| Non-metallic mineral products..... | 339 | 11,467 | 37,459,420 | 52,848,933 | 85,403,450 | 152,196,126 |
| Products of petroleum and coal..... | 18 | 4,045 | 15,784,980 | 241,599,599 | 132,863,573 | 387,331,805 |
| Chemicals and allied products..... | 371 | 21,236 | 73,975,901 | 159,643,404 | 166,549,304 | 334,497,949 |
| Miscellaneous industries..... | 483 | 10,081 | 25,813,324 | 35,392,182 | 46,651,758 | 83,013,339 |
| Totals, Quebec | 12,194 | 429,575 | 1,271,077,953 | 3,152,541,331 | 2,622,333,056 | 5,922,367,074 |
| Ontario | | | | | | |
| Foods and beverages..... | 2,903 | 71,663 | 209,350,205 | 887,227,268 | 552,454,759 | 1,454,092,885 |
| Tobacco and tobacco products..... | 20 | 2,131 | 5,023,832 | 80,185,810 | 13,999,304 | 94,318,568 |
| Rubber products..... | 42 | 15,106 | 53,895,965 | 112,162,510 | 151,674,057 | 262,157,593 |
| Leather products..... | 231 | 12,559 | 31,689,202 | 53,559,676 | 49,696,897 | 104,595,157 |
| Textiles..... | 384 | 26,390 | 74,508,395 | 159,466,394 | 138,218,299 | 303,594,004 |
| Knitting mills..... | 131 | 10,299 | 23,569,023 | 37,659,475 | 37,415,412 | 76,276,871 |
| Clothing..... | 758 | 24,062 | 58,447,292 | 91,282,395 | 90,643,373 | 181,796,168 |
| Wood products..... | 2,509 | 35,961 | 96,350,236 | 163,181,149 | 159,299,814 | 327,624,138 |
| Paper products..... | 271 | 33,911 | 130,998,856 | 299,107,920 | 309,677,328 | 635,238,218 |
| Printing, publishing and allied trades | 1,825 | 34,903 | 124,315,459 | 107,432,095 | 218,180,427 | 328,237,043 |
| Iron and steel products..... | 1,476 | 115,318 | 438,117,690 | 673,665,987 | 794,871,975 | 1,488,210,691 |
| Transportation equipment..... | 240 | 79,789 | 312,110,672 | 932,192,669 | 565,078,192 | 1,513,678,038 |
| Non-ferrous metal products..... | 311 | 26,709 | 98,456,533 | 420,976,114 | 319,600,466 | 760,620,623 |
| Electrical apparatus and supplies..... | 300 | 53,841 | 184,407,008 | 342,983,423 | 332,283,086 | 687,583,811 |
| Non-metallic mineral products..... | 523 | 19,960 | 69,831,593 | 90,274,280 | 158,642,076 | 266,277,871 |
| Products of petroleum and coal..... | 36 | 7,314 | 31,001,492 | 224,709,024 | 138,702,371 | 376,579,184 |
| Chemicals and allied products..... | 553 | 25,137 | 90,764,804 | 266,606,480 | 291,452,789 | 578,133,840 |
| Miscellaneous industries..... | 763 | 18,819 | 56,067,370 | 71,552,754 | 104,764,146 | 178,628,258 |
| Totals, Ontario | 13,276 | 613,872 | 2,088,905,627 | 5,014,225,423 | 4,426,654,771 | 9,617,642,961 |
| Manitoba | | | | | | |
| Foods and beverages..... | 369 | 9,693 | 30,065,677 | 159,834,275 | 68,068,598 | 230,679,025 |
| Rubber products..... | 3 | 11 | 15,594 | 43,443 | 53,687 | 97,737 |
| Leather products..... | 24 | 703 | 1,459,862 | 3,015,490 | 2,299,880 | 5,404,998 |
| Textiles..... | 38 | 818 | 1,881,203 | 6,003,993 | 3,549,822 | 7,694,337 |
| Knitting mills..... | 3 | 68 | 132,175 | 427,030 | 283,266 | 721,000 |
| Clothing..... | 155 | 5,800 | 12,302,847 | 24,748,700 | 17,968,907 | 42,754,448 |
| Wood products..... | 316 | 3,132 | 7,709,265 | 14,268,955 | 12,667,587 | 27,319,852 |
| Paper products..... | 23 | 1,490 | 4,924,595 | 13,104,846 | 17,196,101 | 31,416,967 |

For footnotes, see end of table, p. 684.

1.—Summary Statistics of Manufactures of each Province classified by Industrial Group 1955—continued

| Province and Industrial Group | Estab- lish- ments | Em- ployees | Earnings | Cost at Plant of Materials Used | Value Added by Manufacture | Selling Value of Factory Shipments |
|---|--------------------------|----------------|--------------------|---------------------------------------|----------------------------------|--|
| | No. | No. | \$ | \$ | \$ | \$ |
| Manitoba—concluded | | | | | | |
| Printing, publishing and allied trades | 285 | 3,725 | 11,158,700 | 9,207,026 | 19,870,426 | 20,337,415 |
| Iron and steel products..... | 126 | 4,937 | 17,574,860 | 24,796,148 | 33,009,096 | 59,374,050 |
| Transportation equipment..... | 28 | 6,184 | 19,746,690 | 18,551,193 | 22,390,454 | 41,551,534 |
| Non-ferrous metal products..... | 18 | 466 | 1,672,119 | 9,512,080 | 10,569,470 | 20,514,984 |
| Electrical apparatus and supplies..... | 19 | 872 | 2,612,640 | 5,096,462 | 6,080,256 | 11,211,665 |
| Non-metallic mineral products..... | 39 | 1,213 | 3,807,792 | 5,441,725 | 10,887,228 | 18,217,066 |
| Products of petroleum and coal..... | 6 | 783 | 3,027,634 | 26,165,784 | 14,371,721 | 41,966,517 |
| Chemicals and allied products..... | 38 | 743 | 1,969,907 | 6,748,407 | 5,067,371 | 12,124,065 |
| Miscellaneous industries..... | 59 | 680 | 1,657,008 | 2,733,208 | 3,138,238 | 5,965,421 |
| Totals, Manitoba..... | 1,549 | 41,318 | 121,718,573 | 329,698,765 | 247,472,108 | 588,351,081 |
| Saskatchewan | | | | | | |
| Foods and beverages..... | 231 | 4,975 | 15,098,450 | 87,444,147 | 39,314,447 | 128,279,268 |
| Leather products..... | 1 | 1 | 1 | 1 | 1 | 1 |
| Textiles..... | 8 | 69 | 145,841 | 1,063,411 | 194,785 | 1,261,676 |
| Knitting mills..... | 1 | 1 | 1 | 1 | 1 | 1 |
| Clothing..... | 14 | 255 | 582,185 | 1,042,912 | 929,883 | 1,858,279 |
| Wood products..... | 382 | 1,571 | 3,182,652 | 5,898,977 | 6,248,936 | 12,408,066 |
| Paper products..... | 4 | 27 | 67,325 | 100,236 | 135,832 | 233,096 |
| Printing, publishing and allied trades | 188 | 1,523 | 4,378,361 | 2,999,542 | 7,335,726 | 10,478,578 |
| Iron and steel products..... | 53 | 713 | 2,288,782 | 3,613,124 | 3,522,471 | 7,219,093 |
| Transportation equipment..... | 7 | 16 | 36,974 | 28,134 | 58,801 | 90,309 |
| Non-ferrous metal products..... | 1 | 1 | 1 | 1 | 1 | 1 |
| Electrical apparatus and supplies..... | 1 | 1 | 1 | 1 | 1 | 1 |
| Non-metallic mineral products..... | 34 | 352 | 1,018,541 | 975,838 | 2,827,320 | 3,917,962 |
| Products of petroleum and coal..... | 12 | 1,235 | 5,071,730 | 51,999,935 | 29,989,513 | 85,153,682 |
| Chemicals and allied products..... | 10 | 200 | 743,087 | 2,255,904 | 541,533 | 3,170,604 |
| Miscellaneous industries ^a | 17 | 554 | 2,211,613 | 16,656,541 | 22,499,375 | 41,091,424 |
| Totals, Saskatchewan..... | 960 | 11,490 | 34,825,511 | 174,078,701 | 113,598,622 | 295,162,037 |
| Alberta | | | | | | |
| Foods and beverages..... | 419 | 11,091 | 33,031,892 | 192,179,921 | 78,721,470 | 272,807,725 |
| Rubber products..... | 1 | 1 | 1 | 1 | 1 | 1 |
| Leather products..... | 10 | 46 | 103,955 | 100,932 | 127,955 | 224,604 |
| Textiles..... | 19 | 368 | 1,231,541 | 2,837,719 | 1,922,655 | 5,108,352 |
| Knitting mills..... | 4 | 43 | 90,885 | 106,578 | 130,058 | 259,599 |
| Clothing..... | 24 | 834 | 1,778,847 | 3,282,972 | 4,293,202 | 7,662,761 |
| Wood products..... | 989 | 5,966 | 13,301,177 | 28,711,851 | 27,051,937 | 56,917,489 |
| Paper products..... | 13 | 566 | 1,894,363 | 5,730,327 | 4,443,628 | 10,268,129 |
| Printing, publishing and allied trades | 276 | 2,414 | 7,148,826 | 6,079,129 | 14,324,609 | 20,573,810 |
| Iron and steel products..... | 153 | 3,464 | 12,002,292 | 18,568,027 | 22,004,030 | 40,552,978 |
| Transportation equipment..... | 23 | 2,831 | 9,251,106 | 9,082,564 | 10,036,263 | 19,389,748 |
| Non-ferrous metal products..... | 12 | 685 | 2,860,212 | 6,781,443 | 8,009,851 | 15,164,078 |
| Electrical apparatus and supplies..... | 9 | 194 | 517,640 | 2,056,107 | 1,089,032 | 3,088,129 |
| Non-metallic mineral products..... | 76 | 2,673 | 8,236,406 | 12,111,809 | 19,897,621 | 33,035,807 |
| Products of petroleum and coal..... | 21 | 1,822 | 7,359,750 | 65,927,531 | 47,126,611 | 116,232,764 |
| Chemicals and allied products..... | 31 | 1,513 | 6,717,633 | 11,822,005 | 21,822,372 | 36,865,383 |
| Miscellaneous industries ^a | 47 | 336 | 1,022,290 | 643,938 | 2,307,407 | 2,996,879 |
| Totals, Alberta..... | 2,126 | 34,846 | 106,548,815 | 366,022,853 | 263,308,701 | 641,148,235 |
| British Columbia | | | | | | |
| Foods and beverages..... | 667 | 16,539 | 49,241,369 | 212,627,607 | 107,792,278 | 323,395,341 |
| Tobacco and tobacco products..... | 1 | 1 | 1 | 1 | 1 | 1 |
| Rubber products..... | 4 | 47 | 157,359 | 87,542 | 233,916 | 343,474 |
| Leather products..... | 18 | 493 | 1,174,079 | 2,022,191 | 1,889,722 | 3,897,639 |
| Textiles..... | 40 | 721 | 1,771,397 | 4,480,124 | 3,064,231 | 7,823,376 |

For footnotes, see end of table, p. 684.

1.—Summary Statistics of Manufactures of each Province classified by Industrial Group 1955—concluded

| Province or Territory and Industrial Group | Estab-lish-ments | Em-ployees | Earnings | Cost at Plant of Materials Used | Value Added by Manufacture | Selling Value of Factory Shipments |
|---|------------------|----------------|--------------------|---------------------------------|----------------------------|------------------------------------|
| | No. | No. | \$ | \$ | \$ | \$ |
| British Columbia—concluded | | | | | | |
| Knitting mills..... | 4 | 247 | 562,910 | 759,404 | 1,076,515 | 1,836,958 |
| Clothing..... | 70 | 1,487 | 3,281,108 | 5,450,474 | 4,953,085 | 10,454,440 |
| Wood products..... | 2,400 | 43,443 | 143,069,559 | 311,653,033 | 270,777,218 | 589,778,471 |
| Paper products..... | 46 | 8,640 | 37,906,735 | 90,486,049 | 105,177,332 | 204,185,484 |
| Printing, publishing and allied trades | 415 | 5,000 | 17,730,153 | 11,965,388 | 30,225,896 | 42,550,838 |
| Iron and steel products..... | 311 | 8,118 | 30,376,187 | 48,226,842 | 55,585,752 | 104,259,300 |
| Transportation equipment..... | 104 | 4,569 | 17,370,266 | 14,226,460 | 23,931,716 | 43,693,697 |
| Non-ferrous metal products..... | 49 | 5,574 | 23,061,935 | 85,644,022 | 37,168,503 | 126,984,777 |
| Electrical apparatus and supplies..... | 38 | 708 | 2,377,583 | 6,797,351 | 4,860,222 | 11,129,767 |
| Non-metallic mineral products..... | 90 | 1,804 | 6,449,097 | 8,144,502 | 14,088,364 | 23,765,705 |
| Products of petroleum and coal..... | 8 | 1,474 | 6,486,597 | 66,298,896 | 41,236,973 | 110,852,119 |
| Chemicals and allied products..... | 92 | 2,494 | 9,508,706 | 24,519,137 | 38,770,615 | 66,069,567 |
| Miscellaneous industries ³ | 130 | 1,050 | 3,285,687 | 2,584,646 | 5,539,170 | 8,323,863 |
| Totals, British Columbia..... | 4,486 | 102,408 | 353,810,727 | 895,973,668 | 750,877,508 | 1,679,344,816 |
| Yukon and N.W.T. | | | | | | |
| Foods and beverages..... | 6 | 22 | 50,257 | 74,082 | 124,541 | 211,434 |
| Wood products..... | 14 | 63 | 147,605 | 201,303 | 293,295 | 512,538 |
| All other groups ³ | 6 | 85 | 406,645 | 2,568,510 | 1,314,675 | 4,027,028 |
| Totals, Yukon and N.W.T..... | 26 | 170 | 604,507 | 2,843,895 | 1,732,511 | 4,751,000 |

¹ Cannot be published separately for confidential reasons and therefore included in "Miscellaneous industries".

² Publication authorized by the firms concerned.

³ Includes all groups for which figures cannot be published.

⁴ Cannot be published separately for confidential reasons and therefore included in "All other groups".

⁵ Includes printing, publishing and allied trades, iron and steel products, non-ferrous metal products, products of petroleum and coal, and chemicals and allied products.

2.—Concentration of Manufacturing Production in each Province 1954 and 1955

| Province or Territory | 1954 | | | 1955 | | |
|-----------------------------------|---|---|---|---|---|---|
| | Number of Establish-ments Employing 500 or more Persons | Percentage of Total Number of Establish-ments in Province | Provincial Percentage of Number of Employees Accounted for by these Establish-ments | Number of Establish-ments Employing 500 or more Persons | Percentage of Total Number of Establish-ments in Province | Provincial Percentage of Number of Employees Accounted for by these Establish-ments |
| Newfoundland..... | 3 | 0.4 | 41.1 | 3 | 0.4 | 39.4 |
| Prince Edward Island..... | — | — | — | — | — | — |
| Nova Scotia..... | 6 | 0.4 | 29.5 | 5 | 0.3 | 26.8 |
| New Brunswick..... | 7 | 0.7 | 29.1 | 7 | 0.7 | 28.8 |
| Quebec..... | 128 | 1.0 | 36.9 | 138 | 1.1 | 37.3 |
| Ontario..... | 182 | 1.4 | 39.2 | 181 | 1.4 | 39.3 |
| Manitoba..... | 9 | 0.6 | 23.5 | 10 | 0.6 | 23.9 |
| Saskatchewan..... | — | — | — | — | — | — |
| Alberta..... | 7 | 0.3 | 15.1 | 7 | 0.3 | 14.9 |
| British Columbia..... | 28 | 0.6 | 26.6 | 29 | 0.6 | 26.9 |
| Yukon and Northwest Territories.. | — | — | — | — | — | — |
| Canada..... | 370 | 1.0 | 35.9 | 380 | 1.0 | 35.7 |

Subsection 1.—The Manufactures of the Atlantic Provinces

The Atlantic Provinces are of economic importance in a number of fields, such as pulp and paper, fish processing, sawmills and primary iron and steel. In *Newfoundland* manufacturing production is dominated by the forest and fisheries resources. Pulp and paper was the most important industry in 1955 with shipments valued at \$62,615,842 followed by fish processing with \$17,445,197. These two industries accounted for 69 p.c. of the total production of the Province. In *Prince Edward Island* agriculture and fishing resources, butter and cheese, fish processing, and prepared stock and poultry feeds are the leading industries. *Nova Scotia* is renowned for its coal mines and its fisheries as well as extensive forests and agricultural lands and is favoured with easy access by sea to the high grade iron ore supply of Newfoundland. On these resources are based the leading manufactures of fish processing, primary iron and steel, sawmills, pulp and paper, shipbuilding and butter and cheese. In addition an important petroleum refinery, cotton yarn and cloth, and coke and gas plants add to the diversification of manufacturing in the Province. The forests of *New Brunswick* give a leading place to its pulp and paper and sawmilling industries. Other important manufacturing and processing is based on fish and agricultural resources.

Considering the Atlantic Provinces as an economic unit, pulp and paper was the leading industry in 1955 with factory shipments valued at \$178,103,158. This was followed by fish processing with \$88,652,293, sawmills \$46,516,711, primary iron and steel \$43,561,192, shipbuilding \$26,806,967, and butter and cheese \$25,830,553. These six industries accounted for 53.5 p.c. of the total factory shipments of the Atlantic region. Other leading industries with shipments valued at \$10,000,000 or more were (in order of value): sugar refining, petroleum products, sash, door and planing mills, bread and other bakery products, slaughtering and meat packing, miscellaneous food preparations, railway rolling-stock, printing and publishing, prepared stock and poultry feeds and breweries.

In the Atlantic region the program of industrial development has been more selective than in some of the other provinces. Fish processing, new sawmills, increased pulp-making capacity and the manufacture of non-metallic building materials like cement and gypsum products have accounted for well over 50 p.c. of the industrial growth. There are, however, a few outstanding exceptions. Two sizable defence plants have been established in *Nova Scotia*, one to repair and overhaul naval aircraft and the other to build and repair radar and related electronic equipment. Considerable development has taken place in *Newfoundland*. Besides plants for the manufacture of cement and gypsum wallboard and plaster, factories for producing boots and shoes, birch veneer, cotton textiles, leather and optical goods, industrial machinery and a leather tannery were established, thus broadening the industrial base of the Province.

Despite the rapid development in the Atlantic Provinces since 1949, manufacturing production did not quite keep pace with the development in the more industrialized provinces of Ontario, Quebec and British Columbia. This is indicated by a slight drop in the Atlantic Provinces' share of the Canadian total which declined from 4.5 p.c. in 1949 to 3.9 p.c. in 1955. In number of persons employed there was an increase of 1.0 p.c. for the Atlantic Provinces as compared with an increase of 10.6 p.c. for Canada as a whole. For earnings of employees the increase was 37.8 p.c. as compared with 59.7 p.c. for Canada.

Up to 1952 the increase in employment in the Atlantic Provinces was about the same as for Canada as a whole. From 1953 to 1955, however, employment in the Atlantic Provinces declined by 6.0 p.c. while for Canada as a whole the decline was 2.2 p.c. The increased employment since 1949 reported by Newfoundland, Prince Edward Island and Nova Scotia was offset by a drop of 4.3 p.c. in New Brunswick, resulting in a net increase of only 1.0 p.c. for the Atlantic Provinces as compared with an increase of 10.6 p.c. for Canada. Selling value of factory shipments were 32.5 p.c. higher in the Atlantic Provinces while for Canada as a whole they were 56.2 p.c. higher.

3.—Statistics of the Leading Industries of the Atlantic Provinces 1955

NOTE.—Comparable figures for 1954 have not been published in the Canada Year Book but are available from DBS publication *General Review of the Manufacturing Industries of Canada 1954*.

| Industry | Estab- lish- ments | Em- ployees | Earnings | Cost at Plant of Materials Used | Value Added by Manufacture | Selling Value of Factory Shipments |
|--|--------------------------|----------------|-------------------|---------------------------------------|----------------------------------|--|
| | No. | No. | \$ | \$ | \$ | \$ |
| Newfoundland | | | | | | |
| 1 Pulp and paper ¹ | 2 | 3,380 | 15,223,920 | 26,099,089 | 32,667,953 | 62,615,842 |
| 2 Fish processing..... | 34 | 2,735 | 4,329,748 | 7,831,603 | 9,238,800 | 17,445,197 |
| 3 Breweries..... | 3 | 175 | 602,743 | 775,248 | 2,607,587 | 3,397,308 |
| 4 Sash, door and planing mills..... | 23 | 285 | 649,543 | 2,019,762 | 964,575 | 3,100,257 |
| 5 Bread and other bakery products.. | 14 | 289 | 686,831 | 1,680,373 | 1,276,534 | 3,044,927 |
| 6 Carbonated beverages..... | 11 | 115 | 279,879 | 782,913 | 1,330,990 | 2,163,823 |
| 7 Sawmills..... | 549 | 919 | 533,581 | 966,571 | 1,090,022 | 2,114,437 |
| 8 Printing and publishing..... | 7 | 256 | 783,744 | 343,177 | 1,490,252 | 1,869,259 |
| 9 Biscuits..... | 3 | 165 | 430,975 | 538,317 | 761,021 | 1,348,119 |
| 10 Other leading industries ² | 9 | 605 | 2,125,991 | 4,608,530 | 4,864,960 | 9,901,176 |
| Totals, Leading Industries... | 655 | 8,924 | 25,646,955 | 45,645,583 | 56,292,691 | 107,000,345 |
| Totals, All Industries..... | 785 | 10,361 | 23,604,468 | 49,914,856 | 60,586,922 | 115,579,036 |
| Percentage of leading industries to all industries..... | 83.4 | 86.1 | 89.6 | 91.4 | 92.9 | 92.6 |
| Prince Edward Island | | | | | | |
| 1 Butter and cheese..... | 17 | 196 | 408,671 | 3,917,386 | 989,484 | 4,955,875 |
| 2 Fish processing..... | 36 | 448 | 504,080 | 3,037,721 | 974,815 | 4,072,015 |
| 3 Feeds, stock and poultry, prepared | 11 | 50 | 85,933 | 919,342 | 231,604 | 1,162,838 |
| 4 Fruit and vegetable preparations.. | 10 | 100 | 110,876 | 441,651 | 261,718 | 725,841 |
| 5 Printing and publishing..... | 3 | 143 | 336,241 | 138,831 | 564,228 | 716,795 |
| 6 Sawmills..... | 69 | 138 | 125,871 | 293,722 | 287,604 | 593,050 |
| 7 Other leading industries ³ | 4 | 279 | 784,145 | 6,878,749 | 1,958,655 | 8,969,434 |
| Totals, Leading Industries... | 150 | 1,354 | 2,355,817 | 15,627,402 | 5,268,108 | 21,195,898 |
| Totals, All Industries..... | 204 | 1,769 | 3,074,085 | 16,803,035 | 6,431,660 | 23,623,831 |
| Percentage of leading industries to all industries..... | 73.5 | 76.5 | 76.6 | 93.0 | 81.9 | 89.7 |
| Nova Scotia | | | | | | |
| 1 Fish processing..... | 194 | 4,381 | 7,821,402 | 32,304,922 | 14,071,056 | 47,211,662 |
| 2 Primary iron and steel..... | 3 | 4,089 | 14,542,200 | 18,838,833 | 17,925,406 | 43,561,192 |
| 3 Sawmills..... | 643 | 3,247 | 4,524,842 | 13,431,162 | 9,290,391 | 23,057,289 |
| 4 Pulp and paper..... | 4 | 1,215 | 4,350,655 | 7,458,206 | 12,167,547 | 21,084,371 |
| 5 Shipbuilding..... | 18 | 2,889 | 9,042,542 | 7,813,661 | 11,956,277 | 20,064,822 |
| 6 Butter and cheese..... | 23 | 718 | 1,722,891 | 7,677,336 | 3,411,170 | 11,422,817 |
| 7 Bread and other bakery products. | 80 | 858 | 1,833,385 | 3,880,803 | 3,835,221 | 8,023,885 |
| 8 Sash, door and planing mills..... | 64 | 768 | 1,593,757 | 5,089,851 | 2,401,419 | 7,612,279 |
| 9 Miscellaneous iron and steel pro- ducts..... | 3 | 676 | 2,054,041 | 3,968,514 | 3,083,479 | 7,581,324 |
| 10 Printing and publishing..... | 27 | 779 | 2,443,861 | 1,357,784 | 4,752,335 | 6,199,760 |
| 11 Knitted goods, not including hosiery..... | 3 | 648 | 1,250,231 | 2,878,804 | 1,925,747 | 5,035,910 |
| 12 Confectionery..... | 6 | 809 | 1,554,900 | 2,803,960 | 1,974,317 | 5,013,893 |
| 13 Fruit and vegetable preparations.. | 17 | 470 | 719,212 | 2,146,432 | 1,424,396 | 4,212,853 |
| 14 Feeds, stock and poultry, prepared | 13 | 96 | 185,550 | 3,414,184 | 730,273 | 4,172,351 |
| 15 Carbonated beverages..... | 31 | 295 | 655,620 | 1,216,083 | 2,547,122 | 3,884,820 |
| 16 Miscellaneous food preparations... | 11 | 182 | 359,901 | 1,947,571 | 1,365,831 | 3,383,694 |
| 17 Fertilizers..... | 3 | 62 | 172,218 | 1,542,210 | 406,780 | 2,069,120 |
| 18 All other leading industries ⁴ | 15 | 3,694 | 12,378,689 | 40,826,674 | 28,194,133 | 71,848,796 |
| Totals, Leading Industries... | 1,158 | 25,876 | 67,205,897 | 158,596,999 | 121,462,900 | 295,440,838 |
| Totals, All Industries..... | 1,524 | 30,218 | 76,555,923 | 175,194,419 | 139,646,423 | 331,129,690 |
| Percentage of leading industries to all industries..... | 75.98 | 85.63 | 87.79 | 90.53 | 86.98 | 89.22 |

For footnotes, see end of table, p. 687.

3.—Statistics of the Leading Industries of the Atlantic Provinces 1955—concluded

| Industry | Estab- lish- ments | Em- ployees | Earnings | Cost at Plant of Materials Used | Value Added by Manufacture | Selling Value of Factory Shipments |
|--|--------------------------|----------------|-------------------|---------------------------------------|----------------------------------|--|
| | No. | No. | \$ | \$ | \$ | \$ |
| New Brunswick | | | | | | |
| 1 Pulp and paper..... | 7 | 4,170 | 16,691,754 | 43,175,866 | 43,632,194 | 94,402,945 |
| 2 Sawmills..... | 385 | 2,676 | 4,448,304 | 11,817,871 | 8,700,269 | 20,751,935 |
| 3 Fish processing..... | 167 | 2,570 | 2,788,224 | 14,493,253 | 5,019,835 | 19,923,419 |
| 4 Miscellaneous food preparations..... | 13 | 365 | 675,229 | 8,444,091 | 2,757,117 | 11,431,399 |
| 5 Butter and cheese..... | 29 | 449 | 978,686 | 6,966,770 | 2,351,984 | 9,451,861 |
| 6 Slaughtering and meat packing..... | 3 | 388 | 1,295,664 | 7,153,926 | 2,069,987 | 9,330,402 |
| 7 Sash, door and planing mills..... | 66 | 895 | 1,978,667 | 5,711,307 | 2,733,043 | 8,617,415 |
| 8 Bread and other bakery products..... | 61 | 848 | 1,765,346 | 3,750,205 | 4,057,918 | 8,122,870 |
| 9 Feeds, stock and poultry, prepared..... | 14 | 198 | 446,359 | 5,687,451 | 850,066 | 6,635,559 |
| 10 Shipbuilding..... | 3 | 1,212 | 2,863,748 | 1,554,936 | 4,838,538 | 6,536,755 |
| 11 Heating and cooking apparatus..... | 3 | 621 | 1,794,587 | 2,017,808 | 3,423,444 | 5,626,652 |
| 12 Printing and publishing..... | 21 | 638 | 1,748,640 | 825,040 | 3,169,635 | 4,064,509 |
| 13 Fertilizers..... | 3 | 114 | 390,724 | 3,049,236 | 927,041 | 3,919,357 |
| 14 Carbonated beverages..... | 25 | 210 | 492,135 | 812,273 | 1,599,635 | 2,503,062 |
| 15 Boxes and bags, paper..... | 7 | 181 | 387,364 | 1,358,799 | 951,037 | 2,322,295 |
| 16 Confectionery..... | 5 | 321 | 623,267 | 1,165,862 | 1,048,061 | 2,286,890 |
| 17 Footwear, leather..... | 3 | 289 | 569,329 | 1,011,398 | 1,074,392 | 2,108,510 |
| 18 All other leading industries ⁵ | 9 | 3,278 | 10,124,346 | 31,339,423 | 20,666,543 | 54,199,962 |
| Totals, Leading Industries..... | 824 | 19,423 | 50,062,373 | 150,335,515 | 109,870,739 | 272,235,797 |
| Totals, All Industries..... | 1,052 | 22,434 | 56,683,345 | 160,905,219 | 120,808,214 | 294,829,050 |
| Percentage of leading industries to all industries..... | 78.33 | 86.58 | 88.32 | 93.43 | 90.95 | 92.34 |

¹ Publication of these figures was authorized by the firms concerned. ² Includes hydraulic cement; dairy products, *n.e.s.*; miscellaneous food preparations; industrial machinery; gypsum products; paints, varnishes and lacquers. ³ Includes bags, cotton and jute; fertilizers; and slaughtering and meat packing. ⁴ Includes breweries; cotton yarn and cloth; bridge building and structural steel; wire and wire goods; aircraft and parts; salt; coke and gas products; petroleum products; boxes and bags, paper; and railway rolling-stock. ⁵ Includes biscuits; breweries; brass and copper products; brooms, brushes, and mops; hydraulic cement; railway rolling-stock; and sugar refining.

Subsection 2.—The Manufactures of Quebec

Quebec with about 30 p.c. of Canada's total selling value of factory shipments ranks as the second largest industrial province in Canada. Several important factors have contributed to the great industrial development of the Province. Its geographic situation is extremely favourable including as it does that great water highway, the St. Lawrence River with its excellent harbour 800 miles inland. There is also an extensive road system linking the small rural areas to the big industrial centres. Other significant factors include abundant forest resources, water power, minerals, agricultural lands and, of even more importance, an industrious and stable population.

Quebec ranks first in available water power resources, having more than 40 p.c. of the total recorded for all Canada. Its power development has been remarkable and its installation of 8,031,422 h.p. at the end of 1955 represents about 45 p.c. of the total for Canada. The St. Lawrence River Beauharnois development of 1,408,000 h.p. and the Saguenay River Shipshaw development of 1,200,000 h.p. were the two largest in the country until 1955. They are now surpassed only by the Sir Adam Beck-Niagara Generating Station in Ontario.

Quebec has developed its \$5,900,000,000 manufacturing output with such leading industries as pulp and paper, non-ferrous metal smelting and refining, petroleum products, slaughtering and meat packing, cotton yarn and cloth, men's and women's clothing, tobacco, cigars and cigarettes, synthetic textiles and silk, railway rolling-stock and leather

footwear. In common with the rest of Canada, Quebec experienced a great industrial expansion following World War II, an expansion affecting existing industrial areas as well as many towns and villages in the accessible areas of the Province.

Quebec's leading industry is pulp and paper with an output of approximately \$561,000,000 in 1955. Quebec is a principal world centre for the production of newsprint with 55 major pulp and paper plants concentrated in the Three Rivers and Shawinigan Falls districts as well as along the Saguenay, Ottawa and St. Lawrence Rivers. The production of non-ferrous metals has expanded considerably during the past decade. The output of aluminum has made impressive strides during recent years and reached a record total of 612,543 tons in 1955. Quebec, with its new furniture factories, its new titanium smelter and its expanded aluminum-making facilities, is challenging Ontario's long-established lead in such fields of manufacture.

Quebec's industries are not as diversified as those of Ontario, although a number have an output approximately 50 p.c. or more of total Canadian production. Quebec predominates in tobacco, cigar and cigarette industries with 94.0 p.c. of the Canadian total; women's factory clothing 69.5 p.c.; cotton yarn and cloth 67.6 p.c.; men's factory clothing 56.2 p.c.; synthetic textiles and silk 53.0 p.c.; miscellaneous chemical products 44.2 p.c.; non-ferrous metal smelting and refining 43.6 p.c.; pulp and paper 42.3 p.c.; and railway rolling-stock 42.0 p.c.

The manufacturing industries of Quebec, in common with those of other provinces, recovered in 1955 from the minor recession that occurred during 1954. All groups, with the exception of transportation equipment, reported increased value of shipments. For the Province as a whole the increase was 9.8 p.c. as compared with an increase of 11.2 p.c. for Canada. Employment in all groups, with the exception of transportation equipment and leather products, was higher, the increase for the Province being 1.3 p.c. and for Canada 2.4 p.c.

4.—Statistics of the Leading Industries of Quebec 1955

NOTE.—Comparable figures for 1954 have not been published in the Canada Year Book but are available from DBS publication *General Review of the Manufacturing Industries of Canada 1954*.

| Industry | Estab- lish- ments | Em- ployees | Earnings | Cost at Plant of Materials Used | Value Added by Manufacture | Selling Value of Factory Shipments |
|---|--------------------------|----------------|-------------|---------------------------------------|----------------------------------|--|
| | No. | No. | \$ | \$ | \$ | \$ |
| 1 Pulp and paper..... | 55 | 27,082 | 111,707,145 | 228,401,407 | 288,688,818 | 560,899,722 |
| 2 Non-ferrous metal smelting and refining..... | 11 | 11,640 | 47,836,458 | 343,383,403 | 152,533,164 | 528,494,241 |
| 3 Petroleum products..... | 8 | 2,621 | 11,727,358 | 231,935,327 | 124,329,573 | 367,287,829 |
| 4 Slaughtering and meat packing..... | 41 | 4,770 | 15,799,352 | 131,015,704 | 32,543,803 | 163,420,145 |
| 5 Miscellaneous electrical apparatus and supplies..... | 39 | 12,026 | 43,672,331 | 73,693,585 | 81,459,477 | 157,856,059 |
| 6 Clothing, women's factory..... | 465 | 17,979 | 39,541,005 | 85,355,388 | 71,581,207 | 157,363,541 |
| 7 Cotton yarn and cloth..... | 21 | 13,844 | 36,341,037 | 106,048,378 | 49,316,900 | 155,316,025 |
| 8 Tobacco, cigars, and cigarettes..... | 27 | 6,938 | 23,497,830 | 80,164,825 | 73,405,757 | 152,658,093 |
| 9 Clothing, men's factory..... | 326 | 16,559 | 35,480,192 | 80,596,107 | 60,441,736 | 140,851,120 |
| 10 Butter and cheese..... | 636 | 5,238 | 12,776,415 | 99,403,748 | 25,026,033 | 126,595,144 |
| 11 Aircraft and parts..... | 24 | 11,066 | 43,555,248 | 35,977,014 | 71,442,013 | 108,446,781 |
| 12 Railway rolling-stock..... | 8 | 11,546 | 38,866,755 | 58,366,801 | 42,962,501 | 103,324,447 |
| 13 Miscellaneous food preparations..... | 82 | 2,717 | 7,882,774 | 67,364,371 | 31,963,154 | 100,504,224 |
| 14 Miscellaneous chemical products, n.e.s..... | 82 | 7,224 | 23,474,898 | 58,985,549 | 35,045,441 | 96,402,691 |
| 15 Furniture..... | 593 | 10,689 | 27,484,134 | 42,130,720 | 43,653,389 | 86,853,873 |
| 16 Synthetic textiles and silk..... | 33 | 10,429 | 29,632,672 | 41,430,055 | 41,856,787 | 84,443,585 |
| 17 Bread and other bakery products..... | 947 | 10,233 | 24,089,317 | 40,155,485 | 39,836,957 | 82,778,934 |
| 18 Sawmills..... | 1,575 | 8,710 | 15,253,546 | 49,701,657 | 30,917,364 | 81,381,163 |
| 19 Brass and copper products..... | 38 | 2,727 | 9,799,133 | 58,610,903 | 21,342,012 | 81,300,006 |
| 20 Machinery, industrial..... | 58 | 7,873 | 27,489,219 | 31,608,063 | 44,557,712 | 79,474,607 |
| 21 Footwear, leather..... | 151 | 11,896 | 24,434,632 | 35,013,716 | 37,783,402 | 73,058,637 |
| 22 Acids, alkalies and salts..... | 16 | 3,639 | 15,362,020 | 27,611,019 | 35,020,839 | 67,627,636 |
| 23 Boxes and bags, paper..... | 61 | 4,876 | 13,190,510 | 41,175,316 | 25,199,342 | 66,700,213 |
| 24 Sheet metal products..... | 88 | 5,013 | 17,152,521 | 33,560,733 | 32,690,477 | 65,384,524 |
| 25 Printing and publishing..... | 83 | 7,027 | 25,111,290 | 18,771,387 | 46,097,753 | 65,308,222 |
| 26 Feeds, stock and poultry, prepared..... | 262 | 1,818 | 4,435,976 | 51,151,794 | 11,150,238 | 63,063,453 |
| 27 Rubber goods, including footwear..... | 32 | 6,745 | 19,697,454 | 24,780,045 | 35,055,289 | 59,800,237 |

4.—Statistics of the Leading Industries of Quebec 1955—concluded

| Industry | Estab- lish- ments | Em- ployees | Earnings | Cost at Plant of Materials Used | Value Added by Manufacture | Selling Value of Factory Shipments |
|--|--------------------------|----------------|----------------------|---------------------------------------|----------------------------------|--|
| | No. | No. | \$ | \$ | \$ | \$ |
| 28 Shipbuilding..... | 11 | 7,291 | 23,961,643 | 22,390,193 | 35,512,476 | 58,502,238 |
| 29 Sash, door and planing mills..... | 784 | 5,844 | 12,907,211 | 32,959,399 | 20,869,089 | 54,814,897 |
| 30 Printing and bookbinding..... | 615 | 7,241 | 21,800,953 | 18,743,257 | 35,050,482 | 54,397,997 |
| 31 Breweries..... | 4 | 2,428 | 10,017,588 | 15,401,426 | 37,035,911 | 53,669,936 |
| 32 Primary iron and steel..... | 15 | 3,689 | 14,368,957 | 16,693,689 | 34,025,151 | 53,577,923 |
| 33 Medicinal and pharmaceutical pre- parations..... | 93 | 3,691 | 11,921,189 | 16,410,747 | 35,987,320 | 52,641,448 |
| 34 Bridge and structural steel work... | 13 | 3,964 | 15,116,195 | 25,711,349 | 24,417,119 | 50,618,169 |
| 35 Telecommunication equipment... | 27 | 5,267 | 19,433,527 | 27,227,779 | 24,051,322 | 50,412,887 |
| 36 Distilled liquors..... | 8 | 2,331 | 8,062,568 | 17,301,926 | 31,155,162 | 47,865,949 |
| 37 Carbonated beverages..... | 185 | 2,761 | 7,624,976 | 13,653,179 | 32,362,278 | 47,031,620 |
| 38 Miscellaneous paper goods, <i>n.e.s.</i> ... | 73 | 2,613 | 7,292,055 | 24,464,899 | 18,848,523 | 43,703,612 |
| 39 Clothing, children's factory..... | 127 | 5,485 | 10,242,119 | 22,468,613 | 16,845,793 | 39,606,109 |
| 40 Wire and wire goods..... | 33 | 2,843 | 10,566,526 | 22,219,163 | 16,734,243 | 39,580,957 |
| Totals, Leading Industries¹... | 7,750 | 298,373 | 918,606,729 | 2,452,128,119 | 1,948,796,007 | 4,523,018,894 |
| Totals, All Industries..... | 12,194 | 429,575 | 1,271,077,953 | 3,152,541,331 | 2,622,333,056 | 5,922,367,074 |
| Percentage of leading industries to all industries..... | 63.56 | 69.46 | 72.27 | 77.78 | 74.31 | 76.37 |

¹ Sugar refining is also a leading industry but statistics are confidential.

Subsection 3.—The Manufactures of Ontario

Ontario, one of the world's major industrial areas, accounts for approximately half of Canada's manufacturing production. Here, the proximity of raw materials, cheap hydro-electric power, and a strategic location in relation to export markets, not only on this Continent but overseas, have been the decisive factors of development. Most of the manufactures of the Province and most of its population are located in the southern area. This area has the inestimable advantage of bordering on the St. Lawrence-Great Lakes waterway system, which gives access westward to the heart of the Continent and eastward to the shipping routes of the world, and which is also the source of most of Ontario's hydro-electricity. Many new industrial areas are being created as new industries and branch plants of established industries are increasingly being located in the smaller towns.

Despite the great industrial progress made by other provinces, Ontario continues to maintain its predominance and in 1955 produced 49 p.c. of the nation's manufactured goods. Steel ingot capacity is increasing. Huge investments have gone into the construction of plants in Sarnia for a whole group of new products based on Alberta oil flowing through the Edmonton-Sarnia pipeline. Other significant developments are taking place in synthetic rubber, synthetic textiles, and industrial and consumer chemicals. Ontario has continued to gain in such traditional lines as motor vehicles, industrial and farm machinery, and the manufacture of household equipment, business and office machinery, and electrical apparatus and supplies. Numerous plants making aircraft components and building materials have favoured the Toronto area, and chemical and synthetic textile plants have been rising in the vicinity of Sarnia and along the lower reaches of the St. Lawrence River between Cornwall and Kingston.

Ontario also has the greatest diversification of manufacturing production of any province. Certain industries, such as the manufacture of motor vehicles, motor vehicle parts, heavy electrical machinery, agricultural implements, machine tools, starch and glucose, bicycles, and the processing of raw tobacco are carried on practically in this Province alone. Of the forty leading industries in Canada in 1955, a substantial number of them were dominated by Ontario's share of the total production. These industries, with the percentage which the production of each bears to the 1955 Canada total

are as follows: motor vehicles 98.9 p.c., motor vehicle parts 96.1 p.c., heavy electrical machinery 91.0 p.c., rubber goods 81.3 p.c., telecommunications equipment 79.2 p.c., primary iron and steel 78.4 p.c., iron castings 70.7 p.c., fruit and vegetable preparations 65.6 p.c., aircraft and parts 64.9 p.c., miscellaneous paper products 63.0 p.c., sheet metal products 59.0 p.c., printing and bookbinding 58.5 p.c., brass and copper products 58.3 p.c., industrial machinery 57.1 p.c., acids, alkalies and salts 53.8 p.c., paper boxes and bags 52.1 p.c., furniture 50.5 p.c., and miscellaneous chemical products 50.0 p.c.

There are also a number of medium-sized industries with a total Canadian production of over \$100,000,000 in which Ontario dominated: agricultural implements to the extent of 92.4 p.c., soaps and washing compounds 88.4 p.c., refrigerators, vacuum cleaners, etc., 80.1 p.c., household and office machinery 73.9 p.c., hardware, tools and cutlery 71.6 p.c., heating and cooking apparatus 69.6 p.c., and confectionery 56.5 p.c.

The manufacturing industries of Ontario in 1955 reported \$9,617,642,961 as the selling value of factory shipments, an increase of 12.7 p.c. over the previous year. This was the highest on record and exceeded the previous high attained in 1953 by 8.3 p.c. Accompanying the increase in shipments was an increase of 2.5 p.c. in the number of employees which totalled 613,872 in 1955.

5.—Statistics of the Leading Industries of Ontario 1955

NOTE.—Comparable figures for 1954 have not been published in the Canada Year Book but are available from DBS publication *General Review of the Manufacturing Industries of Canada 1954*.

| Industry | Estab-lish-ments | Em-ployees | Earnings | Cost at Plant of Materials Used | Value Added by Manufacture | Selling Value of Factory Shipments |
|--|------------------|------------|-------------|---------------------------------|----------------------------|------------------------------------|
| | No. | No. | \$ | \$ | \$ | \$ |
| 1 Motor vehicles..... | 9 | 32,491 | 131,049,092 | 626,514,547 | 264,274,618 | 897,044,382 |
| 2 Non-ferrous metal smelting and refining..... | 9 | 10,595 | 43,368,237 | 256,783,209 | 218,573,605 | 492,930,068 |
| 3 Primary iron and steel..... | 18 | 23,369 | 102,907,093 | 171,581,869 | 228,709,683 | 412,013,769 |
| 4 Pulp and paper..... | 41 | 19,108 | 83,226,439 | 167,312,533 | 209,562,479 | 401,749,103 |
| 5 Slaughtering and meat packing..... | 56 | 8,740 | 31,382,574 | 243,146,755 | 76,940,650 | 321,452,118 |
| 6 Petroleum products..... | 14 | 5,456 | 23,840,217 | 133,614,354 | 111,638,401 | 305,587,774 |
| 7 Motor vehicle parts..... | 108 | 18,813 | 70,811,811 | 144,231,441 | 124,702,990 | 274,068,620 |
| 8 Rubber goods, including footwear..... | 42 | 15,106 | 53,895,965 | 112,162,510 | 151,674,057 | 262,157,523 |
| 9 Aircraft and parts..... | 23 | 19,036 | 77,331,466 | 100,513,012 | 125,984,113 | 229,943,198 |
| 10 Telecommunication equipment..... | 85 | 13,344 | 40,976,136 | 127,534,970 | 85,120,352 | 208,665,818 |
| 11 Machinery, heavy electrical..... | 47 | 20,337 | 75,623,014 | 66,635,308 | 110,935,543 | 180,540,736 |
| 12 Miscellaneous electrical apparatus and supplies..... | 98 | 10,908 | 37,299,630 | 80,170,090 | 75,164,084 | 159,963,621 |
| 13 Fruit and vegetable preparations..... | 201 | 10,804 | 26,427,874 | 92,750,395 | 64,907,714 | 153,580,451 |
| 14 Sheet metal products..... | 190 | 11,314 | 40,096,857 | 81,284,310 | 70,490,712 | 153,471,849 |
| 15 Butter and cheese..... | 461 | 7,466 | 22,316,516 | 107,002,656 | 39,896,128 | 150,108,668 |
| 16 Machinery, industrial..... | 189 | 13,228 | 49,007,631 | 61,038,874 | 83,390,729 | 144,554,300 |
| 17 Printing and publishing..... | 299 | 13,527 | 52,575,335 | 36,958,228 | 95,156,027 | 133,240,955 |
| 18 Furniture..... | 712 | 15,088 | 43,767,818 | 61,194,442 | 68,760,514 | 132,115,815 |
| 19 Castings, iron..... | 92 | 9,831 | 36,747,202 | 59,724,787 | 68,937,322 | 129,285,300 |
| 20 Brass and copper..... | 91 | 5,301 | 19,801,401 | 87,350,242 | 38,443,888 | 126,223,042 |
| 21 Bread and other bakery products..... | 842 | 14,581 | 38,462,549 | 54,169,161 | 62,217,114 | 120,458,289 |
| 22 Printing and bookbinding..... | 771 | 12,996 | 42,031,349 | 43,500,618 | 73,076,895 | 117,547,549 |
| 23 Miscellaneous food preparations..... | 111 | 4,285 | 13,515,544 | 75,190,639 | 38,630,768 | 115,738,579 |
| 24 Boxes and bags, paper..... | 104 | 7,447 | 24,021,898 | 66,353,996 | 44,352,162 | 111,316,154 |
| 25 Miscellaneous chemical products, n.e.s..... | 130 | 4,839 | 18,437,653 | 47,714,441 | 55,605,926 | 109,049,859 |
| 26 Refrigerators, vacuum cleaners and appliances..... | 56 | 7,655 | 24,618,410 | 51,260,785 | 49,340,027 | 108,659,268 |
| 27 Miscellaneous paper goods..... | 119 | 6,735 | 21,645,026 | 58,685,127 | 48,560,622 | 108,380,913 |
| 28 Agricultural implements..... | 31 | 10,859 | 39,447,957 | 55,355,001 | 50,109,735 | 105,283,706 |
| 29 Hardware, tools and cutlery..... | 272 | 9,731 | 34,219,823 | 35,515,579 | 59,598,910 | 95,637,098 |
| 30 Breweries..... | 21 | 3,293 | 14,488,558 | 20,417,659 | 72,616,224 | 94,470,237 |
| 31 Acids, alkalies and salts..... | 21 | 4,455 | 17,876,310 | 30,991,574 | 52,176,835 | 92,645,265 |
| 32 Flour mills..... | 45 | 2,016 | 6,389,800 | 75,743,399 | 14,556,486 | 90,998,121 |
| 33 Soaps, washing compounds and cleaning preparations..... | 70 | 3,138 | 12,130,847 | 40,278,638 | 47,501,506 | 88,510,571 |
| 34 Tobacco processing and packing..... | 10 | 1,612 | 3,428,168 | 75,926,144 | 8,488,102 | 84,649,307 |
| 35 Railway rolling-stock..... | 13 | 5,726 | 21,053,889 | 49,635,074 | 32,559,228 | 83,079,946 |

5.—Statistics of the Leading Industries of Ontario 1955—concluded

| Industry | Estab- lish- ments | Em- ployees | Earnings | Cost at Plant of Materials Used | Value Added by Manufacture | Selling Value of Factory Shipments |
|--|--------------------------|----------------|----------------------|---------------------------------------|----------------------------------|--|
| | No. | No. | \$ | \$ | \$ | \$ |
| 36 Feeds, stock and poultry, prepared | 340 | 2,876 | 7,657,422 | 61,219,900 | 18,643,109 | 81,093,831 |
| 37 Heating and cooking apparatus... | 68 | 5,980 | 20,345,984 | 41,306,115 | 37,014,551 | 78,592,179 |
| 38 Wire and wire goods..... | 69 | 5,581 | 20,871,107 | 39,233,512 | 37,859,066 | 78,563,195 |
| 39 Machinery, household, office and store..... | 46 | 5,412 | 19,445,930 | 35,084,936 | 42,657,368 | 78,548,988 |
| 40 Clothing, men's factory..... | 152 | 10,242 | 24,437,319 | 37,127,659 | 37,795,977 | 74,413,309 |
| Totals, Leading Industries... | 6,076 | 413,341 | 1,486,977,861 | 3,862,214,489 | 3,196,624,200 | 7,186,333,473 |
| Totals, All Industries..... | 13,276 | 613,872 | 2,088,905,627 | 5,014,225,423 | 4,426,654,771 | 9,617,642,961 |
| Percentage of leading industries to all industries..... | 45.77 | 67.33 | 71.18 | 77.03 | 72.21 | 74.72 |

Subsection 4.—The Manufactures of the Prairie Provinces

The leading industries of the Prairie Provinces are those based on agricultural resources—grain-growing, cattle-raising and dairying areas. Next in importance generally are industries providing for the more necessary needs of the resident population, such as the baking of bread, printing and publishing, etc. The extensive railway services require large shops for the maintenance of rolling-stock, especially in the Winnipeg area. The widespread use of motor vehicles and power machinery on farms has given rise to petroleum refineries in each province. The greatly increased production of crude petroleum in Alberta will undoubtedly lead to further development of the refining industry. This industry, which was in second place in 1955, has made tremendous strides in the Prairie Provinces since 1949. It has increased its proportion of the total manufacturing production of the Prairie Provinces from 8.5 p.c. in 1949 to 15.8 p.c. in 1955. In Manitoba, the early commercial centre of the Prairies, natural resources of accessible water powers, forests and, more recently, minerals, have given rise to quite a diversification of industrial production. In Saskatchewan, while the main economic role continues to be played by agriculture, oil and uranium are coming into prominence.

In water power resources the Prairie Provinces are not so well endowed as the more highly industrialized provinces of Quebec, Ontario and British Columbia. At the end of 1955 power installation in the three Provinces totalled only 1,191,845 h.p. or about 7 p.c. of the Canadian total. However, developments of natural gas and oil will, in large measure, be able to overcome a lack of water power resources which is so vital to industrial development.

In the Prairie Provinces the nature of development varies from one province to another. Alberta has moved to the forefront, especially since 1950. There the emphasis has been more on the manufacture of machinery and equipment, including products like drill bits and tanks, heat exchangers and other bulky equipment for the burgeoning oil and gas industries. Chemicals, and especially petrochemicals, have made striking gains; second in terms of new growth, they now embrace various rayon intermediates and polythene plastics, as well as fertilizers and the manufacture of other new inorganic products like caustic soda and chlorine. Sizable gains have been made by the expansion of food processing plants and the construction of additional factories for making building materials.

Manitoba, next to Alberta in value of shipments, experienced great development in manufacturing production during the War and postwar periods although, percentage-wise, it did not keep pace with the other two Prairie Provinces. Since 1946, however, development has been on a wide front. The increase in the number of persons employed totalled 2,951, about 42 p.c. of which was reported by the iron and steel group. In 1955 the foods and

beverages group was in first place as an employer of labour, followed in order by transportation equipment, clothing, iron and steel products, printing, publishing and allied trades, and wood products. These six industries accounted for 81 p.c. of the manufacturing employment of Manitoba.

Developments in Saskatchewan have continued along more or less traditional lines. The largest gains in shipments have been recorded by the food processing industry and a substantial increase has also been shown by the building materials group, which includes non-metallic mineral products and lumber. However, the largest single gain in employment has been in the refining of oil for local use.

6.—Statistics of the Leading Industries of the Prairie Provinces 1955

NOTE.—Comparable figures for 1954 have not been published in the Canada Year Book but are available from DBS publication *General Review of the Manufacturing Industries of Canada 1954*.

| Industry | Estab-lish-ments | Em-ployees | Earnings | Cost at Plant of Materials Used | Value Added by Manufacture | Selling Value of Factory Shipments |
|---|------------------|---------------|--------------------|---------------------------------|----------------------------|------------------------------------|
| | No. | No. | \$ | \$ | \$ | \$ |
| Manitoba | | | | | | |
| 1 Slaughtering and meat packing... | 12 | 3,086 | 11,167,353 | 74,765,409 | 23,355,502 | 98,777,029 |
| 2 Petroleum products..... | 4 | 559 | 2,202,272 | 25,303,618 | 13,711,135 | 40,235,459 |
| 3 Butter and cheese..... | 69 | 1,289 | 3,607,075 | 21,448,747 | 6,589,501 | 28,510,065 |
| 4 Railway rolling-stock..... | 4 | 4,512 | 14,603,629 | 13,258,120 | 14,398,580 | 28,149,876 |
| 5 Flour mills..... | 7 | 569 | 1,606,149 | 21,098,858 | 3,264,146 | 24,516,430 |
| 6 Clothing, men's factory..... | 49 | 2,714 | 5,239,070 | 12,776,639 | 7,885,503 | 20,568,831 |
| 7 Miscellaneous food preparations... | 24 | 597 | 1,903,509 | 13,474,175 | 4,947,237 | 19,165,052 |
| 8 Furniture..... | 134 | 1,760 | 4,570,788 | 9,136,730 | 7,392,043 | 16,693,786 |
| 9 Pulp and paper..... | 3 | 526 | 2,201,874 | 4,352,491 | 10,365,042 | 15,869,633 |
| 10 Printing and publishing..... | 78 | 1,890 | 5,650,480 | 4,607,118 | 10,935,502 | 15,694,108 |
| 11 Bread and other bakery products. | 141 | 1,670 | 4,500,251 | 6,348,857 | 7,632,665 | 14,483,055 |
| 12 Clothing, women's factory..... | 27 | 1,648 | 3,752,564 | 7,437,013 | 5,244,638 | 12,719,630 |
| 13 Breweries..... | 6 | 560 | 2,261,594 | 1,996,040 | 9,548,406 | 11,754,695 |
| 14 Printing and bookbinding..... | 79 | 1,246 | 3,824,148 | 3,199,067 | 6,467,990 | 9,743,811 |
| 15 Sheet metal products..... | 21 | 890 | 2,951,729 | 5,054,125 | 4,187,868 | 9,582,763 |
| 16 Boxes and bags, paper..... | 9 | 607 | 1,826,140 | 5,243,647 | 3,373,362 | 8,715,530 |
| 17 Feeds, stock and poultry, prepared..... | 35 | 227 | 590,391 | 5,918,740 | 1,400,427 | 7,449,509 |
| 18 Miscellaneous iron and steel products | 11 | 603 | 2,182,303 | 2,756,555 | 3,372,254 | 6,222,685 |
| 19 Bags, cotton and jute..... | 4 | 206 | 573,132 | 4,647,304 | 891,525 | 5,575,614 |
| 20 Carbonated beverages..... | 22 | 379 | 1,048,819 | 2,155,949 | 3,221,769 | 5,538,802 |
| 21 Sash, door and planing mills..... | 33 | 592 | 1,587,055 | 2,679,109 | 2,290,951 | 5,062,055 |
| 22 Other leading industries ¹ | 9 | 3,525 | 13,167,058 | 22,325,841 | 35,566,507 | 60,665,820 |
| Totals, Leading Industries... | 781 | 29,655 | 91,017,383 | 269,984,152 | 186,042,553 | 465,694,238 |
| Totals, All Industries..... | 1,549 | 41,318 | 121,718,573 | 329,698,765 | 247,472,108 | 588,351,081 |
| Percentage of leading industries to all industries..... | 50.42 | 71.77 | 74.78 | 81.89 | 75.18 | 79.15 |
| Saskatchewan | | | | | | |
| 1 Petroleum products..... | 10 | 1,194 | 4,941,003 | 51,666,324 | 29,567,048 | 84,368,378 |
| 2 Flour mills..... | 9 | 759 | 2,516,654 | 34,784,680 | 7,769,089 | 42,919,439 |
| 3 Slaughtering and meat packing... | 9 | 1,067 | 3,745,614 | 21,397,228 | 8,685,543 | 30,440,467 |
| 4 Butter and cheese..... | 58 | 1,262 | 3,393,044 | 21,040,805 | 6,932,706 | 28,277,847 |
| 5 Bread and other bakery products. | 100 | 1,102 | 2,972,894 | 4,363,711 | 5,319,637 | 9,994,720 |
| 6 Breweries..... | 5 | 361 | 1,386,473 | 1,946,634 | 7,443,197 | 9,528,164 |
| 7 Printing and publishing..... | 98 | 1,181 | 3,419,958 | 2,087,633 | 5,915,936 | 8,125,377 |
| 8 Sash, door and planing mills..... | 33 | 440 | 1,198,838 | 2,768,332 | 1,948,040 | 4,819,953 |
| 9 Sawmills..... | 303 | 727 | 1,016,240 | 1,747,213 | 2,493,115 | 4,339,875 |
| 10 Carbonated beverages..... | 24 | 265 | 643,141 | 1,452,193 | 2,002,287 | 3,632,967 |
| 11 Sheet metal products..... | 7 | 256 | 815,809 | 2,035,136 | 1,548,348 | 3,514,423 |
| 12 Feeds, stock and poultry, prepared | 10 | 75 | 217,722 | 1,726,025 | 673,218 | 2,246,456 |
| Totals, Leading Industries²... | 666 | 8,689 | 26,267,390 | 147,015,914 | 80,298,164 | 232,208,066 |
| Totals, All Industries..... | 960 | 11,490 | 34,825,511 | 174,078,701 | 113,598,622 | 295,162,037 |

For footnotes, see end of table.

6.—Statistics of the Leading Industries of the Prairie Provinces 1955—concluded

| Industry | Estab- lish- ments | Em- ployees | Earnings | Cost at Plant of Materials Used | Value Added by Manufacture | Selling Value of Factory Shipments |
|--|--------------------------|----------------|--------------------|---------------------------------------|----------------------------------|--|
| | No. | No. | \$ | \$ | \$ | \$ |
| Alberta | | | | | | |
| 1 Slaughtering and meat packing... | 15 | 3,812 | 13,203,518 | 100,556,076 | 25,503,904 | 126,627,676 |
| 2 Petroleum products..... | 18 | 1,803 | 7,327,419 | 65,810,758 | 47,008,996 | 115,989,698 |
| 3 Butter and cheese..... | 100 | 1,883 | 5,065,208 | 27,929,126 | 8,529,705 | 36,892,935 |
| 4 Flour mills..... | 11 | 772 | 2,104,729 | 26,112,119 | 4,427,599 | 30,953,838 |
| 5 Sawmills..... | 761 | 3,007 | 5,335,850 | 10,284,325 | 12,873,546 | 23,853,097 |
| 6 Sash, door and planing mills..... | 122 | 1,843 | 4,970,922 | 13,455,437 | 8,309,832 | 22,086,702 |
| 7 Bread and other bakery products. | 140 | 1,872 | 5,015,245 | 7,234,634 | 9,029,352 | 16,668,022 |
| 8 Breweries..... | 6 | 516 | 1,917,391 | 3,001,716 | 10,739,333 | 13,893,013 |
| 9 Railway rolling-stock..... | 3 | 1,911 | 6,053,983 | 7,290,727 | 6,053,983 | 13,550,513 |
| 10 Concrete products..... | 39 | 895 | 2,972,769 | 6,672,879 | 6,905,834 | 13,191,008 |
| 11 Printing and publishing..... | 80 | 1,296 | 3,990,763 | 3,440,054 | 9,280,799 | 12,816,143 |
| 12 Bridge and structural steel work... | 4 | 690 | 2,665,443 | 5,114,721 | 5,830,571 | 8,760,740 |
| 13 Acids, alkalies and salts..... | 3 | 375 | 1,891,258 | 2,216,018 | 5,472,148 | 6,851,528 |
| 14 Miscellaneous food preparations... | 13 | 280 | 775,192 | 4,884,292 | 3,237,127 | 6,368,485 |
| 15 Feeds, stock and poultry, prepared | 46 | 265 | 729,103 | 5,800,000 | 1,776,159 | 5,981,900 |
| 16 Clothing, men's factory..... | 9 | 688 | 1,473,353 | 2,945,899 | 3,826,376 | 5,874,698 |
| 17 Sheet metal products..... | 13 | 474 | 1,559,717 | 3,351,355 | 3,097,444 | 52,165,242 |
| 18 Printing and bookbinding..... | 81 | 872 | 2,696,423 | 1,826,013 | 4,091,343 | |
| 19 Machine shops..... | 68 | 745 | 2,669,736 | 1,797,817 | 3,950,421 | |
| 20 All other leading industries ¹ | 8 | 2,090 | 8,493,082 | 20,390,217 | 29,836,182 | |
| Totals, Leading Industries... | 1,540 | 26,089 | 80,911,109 | 320,114,083 | 209,780,654 | 539,601,719 |
| Totals, All Industries..... | 2,126 | 34,846 | 106,548,815 | 366,022,853 | 263,308,701 | 641,148,235 |
| Percentage of leading industries to all industries..... | 72.44 | 74.87 | 75.94 | 87.46 | 79.67 | 84.16 |

¹ Includes aircraft and parts, bridge and structural steel work, hydraulic cement, gypsum products, non-ferrous metal smelting and refining, and primary iron and steel. ² Non-ferrous metal smelting and refining is also a leading industry but statistics are confidential since there are fewer than three firms reporting. ³ Includes hydraulic cement, fertilizers, non-ferrous metal smelting and refining, primary plastics, and sugar refining.

Subsection 5.—The Manufactures of British Columbia

British Columbia, with factory shipments totalling \$1,679,344,816 in 1955, ranked third among the provinces in manufacturing production. This Province increased its share of the total Canadian output from 7.1 p.c. in 1939 to 8.6 p.c. in 1955.

Forest resources, fisheries, minerals and electric power have given a broad base and wide diversification to its industrial development. The sawmilling industry ranked first in 1955 with a gross value of shipments of \$414,944,542, and pulp and paper second with \$169,370,459. British Columbia holds the dominant position among the provinces in the production of wood products, its output making up 43 p.c. of the Canadian total. Third in importance was the petroleum products industry with shipments valued at \$101,985,120. This industry received great impetus in the completion of the Trans Mountain oil pipeline. In 1953 it had ranked seventh with shipments valued at \$40,562,462. The Province also accounted for approximately 41 p.c. of the output of the nation's fish processing industry in 1955 and plays a large part in making Canada the largest fish exporting nation in the world.

A feature of recent progress has been that new developments are taking place in areas far removed from accepted industrial centres. Growing lines of communication and transportation are fanning out from and leading into formerly locked interior communities to tap a vast new potential and offer new sources of provincial economic unity and strength. Factories and plants in remote sections are drawing greater value in employment and dollars from natural resources. The growth of the Province industrially may be indicated by the increase in employment—in 1955, more than two and one-half times the prewar

figure. In dollar terms, gross value of manufacturing was up more than sixfold since 1939. The consumption of 5,200,000,000 kwh. of electric power during 1955 marked a steady upward climb of 150 p.c. in the past decade.

British Columbia ranks second among the provinces in available water power resources and its hydraulic development, which at the end of 1955 totalled 2,439,508 h.p. out of a Canadian total of 17,735,221 h.p., was exceeded only by Quebec and Ontario.

The manufacturing industries of British Columbia expanded during 1954, at a time when the remainder of Canada experienced a minor recession, and continued to expand during 1955. In the latter year the number of employees was 6.8 p.c. higher than in 1954 and the value of factory shipments was 13.9 p.c. higher. These figures compared with 2.4 p.c., and 11.2 p.c. respectively for Canada as a whole.

7.—Statistics of the Leading Industries of British Columbia 1955

NOTE.—Comparable figures for 1954 have not been published in the Canada Year Book but are available from DBS publication *General Review of the Manufacturing Industries of Canada 1954*.

| Industry | Estab- lish- ments | Em- ployees | Earnings | Cost at Plant of Materials Used | Value Added by Manufacture | Selling Value of Factory Shipments |
|--|--------------------------|----------------|--------------------|---------------------------------------|----------------------------------|--|
| | No. | No. | \$ | \$ | \$ | \$ |
| 1 Sawmills..... | 1,875 | 31,316 | 103,743,623 | 212,624,169 | 196,773,735 | 414,944,542 |
| 2 Pulp and paper..... | 12 | 6,651 | 31,632,621 | 68,910,308 | 92,139,670 | 169,370,459 |
| 3 Petroleum products..... | 4 | 1,165 | 5,396,040 | 62,798,044 | 36,676,504 | 101,985,120 |
| 4 Sash, door and planing mills..... | 219 | 3,632 | 11,509,030 | 49,629,951 | 22,293,670 | 72,655,254 |
| 5 Veneers and plywoods..... | 14 | 5,398 | 18,684,125 | 32,112,195 | 37,200,046 | 70,059,477 |
| 6 Fish processing..... | 72 | 3,415 | 9,793,365 | 40,705,672 | 24,108,389 | 65,644,446 |
| 7 Slaughtering and meat packing..... | 10 | 1,478 | 5,575,050 | 42,375,624 | 7,889,450 | 50,561,130 |
| 8 Miscellaneous food preparations..... | 42 | 869 | 2,384,593 | 35,440,293 | 5,965,684 | 41,782,663 |
| 9 Fertilizers..... | 5 | 1,282 | 5,458,905 | 12,863,425 | 25,854,659 | 41,037,355 |
| 10 Shipbuilding..... | 24 | 3,664 | 14,250,207 | 10,065,511 | 24,066,422 | 34,452,724 |
| 11 Butter and cheese..... | 30 | 1,943 | 6,402,030 | 20,539,468 | 9,343,185 | 30,877,088 |
| 12 Fruit and vegetable preparations..... | 68 | 2,300 | 5,005,066 | 19,514,743 | 11,994,349 | 29,469,134 |
| 13 Printing and publishing..... | 91 | 3,107 | 11,731,004 | 6,478,251 | 20,357,648 | 27,051,083 |
| 14 Bread and other bakery products..... | 282 | 2,868 | 8,274,354 | 11,440,544 | 12,692,703 | 24,904,461 |
| 15 Sheet metal products..... | 30 | 963 | 3,710,602 | 11,724,091 | 8,208,770 | 19,870,960 |
| 16 Bridge and structural steel work..... | 4 | 1,342 | 5,593,685 | 11,213,127 | 8,288,781 | 19,747,383 |
| 17 Machinery, industrial..... | 42 | 1,690 | 6,567,786 | 6,068,134 | 13,112,542 | 19,037,735 |
| 18 Furniture..... | 218 | 1,970 | 5,712,157 | 8,815,112 | 8,518,311 | 17,512,239 |
| 19 Boxes and bags, paper..... | 17 | 1,022 | 3,143,451 | 10,380,756 | 6,689,737 | 17,143,428 |
| 20 Feeds, stock and poultry, prepared..... | 38 | 771 | 2,311,444 | 11,894,635 | 3,531,964 | 16,235,334 |
| 21 Breweries..... | 9 | 652 | 2,499,295 | 3,272,750 | 11,967,311 | 15,412,921 |
| 22 Miscellaneous paper goods..... | 13 | 696 | 2,151,537 | 9,125,735 | 4,563,093 | 13,751,656 |
| Totals, Leading Industries¹... | 3,119 | 78,194 | 271,529,970 | 697,992,538 | 592,236,623 | 1,313,506,592 |
| Totals, All Industries..... | 4,486 | 102,408 | 353,810,727 | 895,973,668 | 750,877,508 | 1,679,344,816 |

¹ Other leading industries for which statistics cannot be shown since there are fewer than three establishments in each industry are non-ferrous metal smelting and refining, sugar refining, and distilled liquors.

Section 2.—Manufacturing Industries in Urban Centres

The prosperity of most of the cities and towns of Canada, especially in Eastern Canada, is intimately connected with their manufacturing industries, which provide employment for a large proportion of the labour forces. In Western Canada the cities are largely distributing centres, though manufacturing is increasing rapidly there also.

Table 8 indicates the extent to which the manufacturing industries are concentrated in urban centres and shows, by province, the proportion of the value of factory shipments contributed by cities and towns having shipments of over \$1,000,000 each. In the more highly industrialized provinces of Ontario and Quebec such cities and towns accounted for 79 p.c. and 93 p.c. respectively of the total manufactures of those provinces in 1955, while in the Atlantic Provinces and British Columbia, where sawmilling, fish packing and dairying are leading industries, the proportions were 64 p.c. and 54 p.c. respectively. In the Prairie Provinces, manufacturing is confined largely to a few urban centres.

Comparing 1955 figures with those of 1954, a noticeable trend towards the decentralization of industry is apparent in all provinces but the most striking change is shown by Ontario where there has recently been a tendency to establish new industry in smaller urban centres and where many new one-industry areas have been opened up. In that Province the percentage of manufactures accounted for by urban centres having shipments of over \$1,000,000 was 90 in 1952 but dropped to 79 by 1955.

8.—Urban Centres each with Selling Value of Factory Shipments of Over \$1,000,000. Number of Establishments and Total Shipments in these Centres as a Percentage of the Provincial Total, by Province 1954 and 1955.

NOTE.—Statistics published in this table are sometimes higher than the figures published in Table 11, pp. 697-699, since the table below includes statistics of towns with fewer than three establishments and production of over \$1,000,000 each. It is not possible to publish this information in Table 11 without disclosing the operations of individual establishments.

| Year and Province or Territory | Urban Centres with Value of Factory Shipments of over \$1,000,000 each | Establish- ments Reporting in Urban Centres with Value of Factory Shipments of over \$1,000,000 | Value of Factory Shipments of Urban Centres having \$1,000,000 or over | Value of Factory Shipments of each Province | Value of Factory Shipments of Urban Centres as a Percentage of Shipments in each Province |
|-----------------------------------|--|--|---|---|--|
| | No. | No. | \$ | \$ | |
| 1954 | | | | | |
| Newfoundland..... | 4 | 126 | 73,690,698 | 109,567,770 | 67.3 |
| Prince Edward Island..... | 3 | 61 | 15,973,456 | 23,469,743 | 68.1 |
| Nova Scotia..... | 27 | 528 | 203,774,207 | 300,072,733 | 67.9 |
| New Brunswick..... | 18 | 361 | 228,531,168 | 287,350,600 | 79.5 |
| Quebec..... | 163 | 8,078 | 5,027,556,543 | 5,395,786,644 | 93.2 |
| Ontario..... | 182 | 9,638 | 7,505,904,263 | 8,533,167,214 | 88.0 |
| Manitoba..... | 10 | 1,064 | 481,425,498 | 571,408,772 | 84.3 |
| Saskatchewan..... | 8 | 382 | 222,530,692 | 280,733,784 | 79.3 |
| Alberta..... | 16 | 941 | 412,586,436 | 575,277,702 | 71.7 |
| British Columbia..... | 41 | 2,690 | 873,369,110 | 1,474,156,242 | 59.2 |
| Yukon and Northwest Territories.. | — | — | — | 3,536,300 | — |
| Canada, 1954..... | 472 | 23,869 | 15,045,342,071 | 17,554,527,504 | 85.8 |
| 1955 | | | | | |
| Newfoundland..... | 5 | 133 | 75,356,756 | 115,579,036 | 65.2 |
| Prince Edward Island..... | 2 | 42 | 11,965,164 | 23,628,831 | 50.6 |
| Nova Scotia..... | 27 | 540 | 218,303,765 | 331,129,690 | 65.9 |
| New Brunswick..... | 16 | 341 | 221,894,460 | 294,829,050 | 75.3 |
| Quebec..... | 175 | 8,210 | 5,508,352,309 | 5,922,367,074 | 93.0 |
| Ontario..... | 180 | 9,248 | 7,550,499,731 | 9,617,642,961 | 78.5 |
| Manitoba..... | 13 | 1,128 | 488,164,813 | 588,351,081 | 83.0 |
| Saskatchewan..... | 9 | 422 | 232,483,059 | 295,162,037 | 78.8 |
| Alberta..... | 17 | 1,016 | 426,500,348 | 641,148,235 | 66.5 |
| British Columbia..... | 36 | 2,455 | 911,907,151 | 1,679,344,816 | 54.3 |
| Yukon and Northwest Territories.. | — | — | — | 4,751,000 | — |
| Canada, 1955..... | 480 | 23,535 | 15,645,427,556 | 19,513,933,811 | 80.2 |

9.—Principal Statistics of the Manufacturing Industries of the Six Leading Manufacturing Cities 1939-55

| City and Year | Estab- lish- ments | Em- ployees | Earnings | Cost of Fuel and Electricity | Cost of Materials | Gross Value of Products ¹ |
|--------------------------|--------------------------|----------------|-------------|------------------------------------|----------------------|--|
| | No. | No. | \$ | \$ | \$ | \$ |
| Montreal, Que. 1939 | 2,501 | 105,315 | 114,602,118 | 7,667,848 | 254,188,246 | 483,246,583 |
| 1946 | 3,785 | 173,507 | 291,381,617 | 14,740,538 | 602,667,823 | 1,147,945,303 |
| 1949 | 4,136 | 184,779 | 399,943,526 | 16,487,474 | 847,444,669 | 1,596,713,694 |
| 1953 | 4,398 | 193,129 | 544,284,191 | 18,428,249 | 1,067,911,378 | 2,042,662,785 |
| 1954 | 4,415 | 184,684 | 539,119,575 | 19,030,786 | 1,050,160,663 | 1,987,217,589 |
| 1955 | 4,379 | 176,998 | 529,339,811 | 19,553,134 | 1,021,717,306 | 1,963,367,235 |

For footnote, see end of table, p. 696.

9.—Principal Statistics of the Manufacturing Industries of the Six Leading Manufacturing Cities 1929-55—concluded

| City and Year | Estab- lish- ments | Em- ployees | Earnings | Cost of Fuel and Electricity | Cost of Materials | Gross Value of Products ¹ |
|--------------------------|--------------------------|----------------|-------------|------------------------------------|-------------------------|--|
| | No. | No. | \$ | \$ | \$ | \$ |
| Toronto, Ont..... 1939 | 2,885 | 98,702 | 122,553,435 | 7,306,351 | 240,532,281 | 482,532,331 |
| 1946 | 3,632 | 145,556 | 247,298,288 | 12,238,707 | 549,256,912 | 1,036,939,790 |
| 1949 | 4,005 | 158,562 | 368,510,524 | 17,003,151 | 837,148,440 | 1,579,186,450 |
| 1953 | 3,781 | 154,251 | 478,086,271 | 18,968,416 | 980,873,073 | 1,875,747,249 |
| 1954 | 3,728 | 145,792 | 470,046,860 | 19,883,670 | 945,614,031 | 1,810,860,959 |
| 1955 | 3,497 | 134,235 | 448,775,761 | 18,788,747 | 916,493,539 | 1,732,099,123 |
| Hamilton, Ont..... 1939 | 461 | 31,512 | 39,563,423 | 5,267,577 | 70,829,034 | 152,746,340 |
| 1946 | 501 | 45,951 | 80,959,432 | 10,434,888 | 150,977,835 | 308,033,098 |
| 1949 | 546 | 54,665 | 137,641,333 | 17,728,214 | 285,180,403 | 563,982,920 |
| 1953 | 566 | 60,451 | 201,515,979 | 22,408,131 | 385,515,852 | 824,407,315 |
| 1954 | 580 | 54,199 | 189,099,943 | 20,470,777 | 341,555,746 | 752,353,730 |
| 1955 | 588 | 55,202 | 200,311,361 | 24,807,502 | 395,047,070 | 844,835,085 |
| Windsor, Ont..... 1939 | 222 | 17,729 | 25,938,890 | 1,673,417 | 63,907,106 | 122,474,320 |
| 1946 | 256 | 30,889 | 60,315,436 | 3,748,979 | 138,788,813 | 244,925,148 |
| 1949 | 283 | 34,591 | 94,304,627 | 5,373,123 | 271,392,923 | 494,162,203 |
| 1953 | 338 | 37,514 | 140,481,193 | 7,559,592 | 402,209,586 | 682,273,319 |
| 1954 | 353 | 30,210 | 112,816,841 | 5,718,287 | 263,143,564 | 474,634,211 |
| 1955 | 334 | 25,654 | 101,810,378 | 4,975,650 | 186,275,443 | 374,512,418 |
| Winnipeg, Man..... 1939 | 648 | 17,571 | 20,717,273 | 1,491,823 | 44,873,043 | 81,024,272 |
| 1946 | 756 | 26,730 | 42,354,650 | 2,625,075 | 121,531,306 | 206,381,007 |
| 1949 | 860 | 28,687 | 58,604,162 | 3,166,077 | 143,827,270 | 255,006,806 |
| 1953 | 860 | 28,230 | 76,008,218 | 3,266,587 | 156,860,845 | 300,186,774 |
| 1954 | 864 | 26,887 | 74,628,593 | 3,503,403 | 150,352,336 | 288,602,394 |
| 1955 | 873 | 26,392 | 75,281,647 | 3,541,450 | 152,675,494 | 291,084,611 |
| Vancouver, B.C..... 1939 | 829 | 17,957 | 22,382,192 | 1,397,159 | 56,565,511 | 101,267,243 |
| 1946 | 1,071 | 31,408 | 55,960,984 | 3,075,458 | 138,045,068 | 270,165,166 |
| 1949 | 1,225 | 33,536 | 78,793,345 | 4,392,716 | 204,642,985 | 358,620,526 |
| 1953 | 1,316 | 33,822 | 108,896,725 | 5,448,266 | 255,066,780 | 448,591,543 |
| 1954 | 1,335 | 33,916 | 114,114,199 | 6,104,757 | 273,058,336 | 486,913,181 |
| 1955 | 1,330 | 34,683 | 120,488,180 | 5,757,268 | 276,666,483 | 489,181,449 |

¹ Net value is derived from gross value by deducting cost of materials, fuel and electricity. In 1952 gross value of products was replaced by value of factory shipments; see text, p. 634.

10.—Principal Statistics of the Manufacturing Industries in the Six Leading Metropolitan Areas 1954 and 1955

| Metropolitan Area | Estab- lish- ments | Em- ployees | Earnings | Cost of Fuel and Electricity | Cost at Plant of Materials Used | Selling Value of Factory Shipments |
|-------------------|--------------------------|----------------|-------------|------------------------------------|---------------------------------------|--|
| | No. | No. | \$ | \$ | \$ | \$ |
| 1954 | | | | | | |
| Montreal..... | 5,050 | 239,811 | 727,701,073 | 44,572,601 | 1,645,598,508 | 3,056,372,991 |
| Toronto..... | 4,667 | 200,716 | 657,337,207 | 30,072,161 | 1,288,506,914 | 2,546,283,395 |
| Hamilton..... | 679 | 57,071 | 197,158,253 | 21,075,453 | 358,290,238 | 783,690,490 |
| Windsor..... | 381 | 30,969 | 115,076,288 | 5,877,855 | 268,484,610 | 484,157,007 |
| Winnipeg..... | 1,005 | 35,753 | 101,376,436 | 6,341,804 | 288,990,475 | 489,227,873 |
| Vancouver..... | 1,729 | 50,129 | 169,444,676 | 10,142,842 | 411,308,194 | 750,277,091 |
| 1955 | | | | | | |
| Montreal..... | 5,147 | 240,288 | 750,385,954 | 47,051,284 | 1,808,114,819 | 3,331,614,743 |
| Toronto..... | 4,685 | 200,352 | 679,096,497 | 30,413,613 | 1,382,513,942 | 2,716,050,767 |
| Hamilton..... | 700 | 58,337 | 209,520,995 | 25,540,191 | 415,146,966 | 882,681,084 |
| Windsor..... | 387 | 36,528 | 144,637,822 | 7,787,681 | 338,435,101 | 617,299,358 |
| Winnipeg..... | 1,038 | 35,898 | 106,439,189 | 8,035,778 | 286,929,227 | 497,254,934 |
| Vancouver..... | 1,762 | 53,112 | 185,614,937 | 10,983,013 | 458,559,366 | 830,019,379 |

11.—Statistics of Manufactures of Municipalities, each with Factory Shipments of \$5,000,000 or Over and with Three or More Establishments 1955

NOTE.—Statistics for urban centres with three or more establishments cannot be published when one establishment has 75 p.c. or two establishments 90 p.c. of the total value of shipments. Comparable figures for 1954 have not been published in the Canada Year Book but are available from DBS publication *General Review of the Manufacturing Industries of Canada 1954*.

| Province and Municipality | Estab-lish-ments | Em-ployees | Earnings | Cost of Fuel and Electricity | Cost at Plant of Materials Used | Selling Value of Factory Shipments |
|----------------------------------|------------------|------------|-------------|------------------------------|---------------------------------|------------------------------------|
| | No. | No. | \$ | \$ | \$ | \$ |
| Newfoundland— | | | | | | |
| St. John's..... | 104 | 2,228 | 5,777,609 | 531,462 | 10,882,053 | 24,230,079 |
| Prince Edward Island— | | | | | | |
| Charlottetown..... | 34 | 646 | 1,547,246 | 166,956 | 6,942,079 | 10,302,264 |
| Nova Scotia— | | | | | | |
| Amherst..... | 24 | 1,248 | 3,182,627 | 289,572 | 4,691,360 | 10,802,773 |
| Halifax..... | 149 | 6,260 | 17,195,401 | 1,036,567 | 30,415,702 | 63,779,266 |
| Lunenburg..... | 17 | 703 | 1,695,748 | 103,960 | 3,968,136 | 6,998,037 |
| New Glasgow..... | 28 | 721 | 1,898,985 | 335,141 | 3,180,786 | 6,471,992 |
| Sydney..... | 42 | 5,010 | 17,881,991 | 3,312,098 | 30,144,108 | 62,517,530 |
| Trenton..... | 8 | 946 | 2,918,040 | 436,453 | 8,116,485 | 13,319,978 |
| Truro..... | 43 | 943 | 1,777,778 | 165,008 | 4,025,106 | 7,608,240 |
| Yarmouth..... | 30 | 690 | 1,379,583 | 136,046 | 3,718,080 | 6,556,728 |
| New Brunswick— | | | | | | |
| Fredericton..... | 39 | 886 | 1,908,823 | 148,692 | 3,780,802 | 7,379,607 |
| Lancaster..... | 8 | 508 | 1,388,570 | 91,111 | 2,706,489 | 7,557,100 |
| Moncton..... | 50 | 2,771 | 8,047,771 | 597,951 | 19,601,426 | 32,539,153 |
| Saint John..... | 108 | 4,528 | 11,599,173 | 1,399,859 | 43,909,577 | 70,108,559 |
| Quebec— | | | | | | |
| Acton Vale..... | 15 | 945 | 2,099,570 | 69,808 | 3,779,259 | 6,758,939 |
| Beauharnois..... | 18 | 1,459 | 4,999,388 | 3,711,636 | 12,095,633 | 28,432,750 |
| Berthierville..... | 15 | 654 | 1,441,975 | 156,933 | 2,561,787 | 5,828,677 |
| Cap de la Madeleine..... | 36 | 2,299 | 6,545,949 | 1,599,201 | 23,403,049 | 43,808,043 |
| Chicoutimi..... | 35 | 537 | 1,318,630 | 110,183 | 2,702,609 | 5,268,969 |
| Coaticook..... | 22 | 1,093 | 2,415,974 | 137,486 | 6,040,135 | 9,729,163 |
| Côte-St-Luc..... | 4 | 977 | 3,662,857 | 150,714 | 9,149,700 | 16,646,509 |
| Cowansville..... | 11 | 1,585 | 4,365,907 | 344,475 | 8,622,966 | 16,116,994 |
| Donnacona..... | 5 | 983 | 4,167,472 | 2,014,471 | 7,098,168 | 18,452,934 |
| Drummondville..... | 57 | 6,193 | 16,612,065 | 1,337,956 | 31,398,691 | 64,385,410 |
| Farnham..... | 19 | 1,061 | 2,548,018 | 176,257 | 4,596,436 | 9,601,624 |
| Granby..... | 87 | 5,793 | 15,116,410 | 894,430 | 28,954,751 | 62,238,236 |
| Grand Mère..... | 34 | 2,453 | 6,942,083 | 1,648,905 | 13,698,225 | 31,631,623 |
| Hull..... | 52 | 3,690 | 11,821,298 | 2,299,978 | 30,420,025 | 59,042,070 |
| Huntingdon..... | 13 | 585 | 1,671,567 | 175,749 | 7,547,829 | 10,778,759 |
| Joliette..... | 61 | 2,227 | 5,312,944 | 600,459 | 8,912,651 | 19,747,489 |
| Jonquière..... | 21 | 502 | 1,534,915 | 269,775 | 3,816,940 | 6,995,161 |
| Lachine..... | 76 | 11,709 | 43,104,952 | 1,720,809 | 73,741,651 | 154,785,071 |
| Lasalle..... | 50 | 5,405 | 18,600,726 | 3,048,066 | 57,266,271 | 110,279,004 |
| L'Assomption..... | 15 | 614 | 1,473,464 | 111,432 | 3,156,971 | 5,645,750 |
| Longueuil..... | 35 | 1,825 | 4,509,130 | 235,517 | 7,500,185 | 15,718,448 |
| Louiseville..... | 19 | 1,689 | 3,915,512 | 387,342 | 6,336,127 | 12,121,743 |
| Magog..... | 31 | 2,652 | 6,880,485 | 814,386 | 34,329,365 | 44,980,774 |
| Marieville..... | 21 | 595 | 1,281,664 | 110,585 | 4,246,937 | 6,559,701 |
| Montmagny..... | 40 | 1,451 | 3,407,554 | 212,435 | 6,638,090 | 13,333,750 |
| Montreal..... | 4,379 | 176,998 | 529,339,811 | 19,553,134 | 1,021,717,306 | 1,963,367,235 |
| Montreal East..... | 37 | 6,200 | 24,539,091 | 16,071,898 | 426,709,916 | 608,723,373 |
| Mount Royal..... | 37 | 5,586 | 19,294,150 | 704,782 | 54,928,338 | 95,336,816 |
| Notre-Dame-de-Portneuf..... | 17 | 575 | 1,605,350 | 356,752 | 4,726,097 | 8,231,436 |
| Outremont..... | 73 | 3,235 | 8,902,414 | 307,450 | 26,516,761 | 49,068,616 |
| Plessisville..... | 28 | 1,131 | 2,231,976 | 112,034 | 3,458,279 | 7,049,624 |
| Pont Rouge..... | 13 | 811 | 895,702 | 288,393 | 3,128,264 | 6,323,058 |
| Princeville..... | 15 | 558 | 1,255,218 | 94,560 | 6,353,690 | 8,876,386 |
| Quebec..... | 428 | 16,818 | 43,544,693 | 5,949,934 | 92,033,607 | 193,753,782 |
| St. Hyacinthe..... | 81 | 3,947 | 9,127,338 | 624,442 | 24,453,481 | 39,820,831 |
| St. Jean (St. Johns)..... | 75 | 4,986 | 14,700,536 | 1,059,838 | 25,151,715 | 55,832,109 |
| St. Jérôme (Terrebonne Co.)..... | 57 | 3,559 | 8,765,152 | 610,350 | 15,338,942 | 30,670,193 |
| St. Joseph-de-Sorel..... | 13 | 1,758 | 6,511,778 | 321,889 | 1,796,502 | 12,070,606 |
| St. Lambert..... | 23 | 892 | 2,433,160 | 104,043 | 4,421,194 | 8,842,288 |
| St. Laurent..... | 70 | 14,434 | 53,991,677 | 1,754,971 | 58,455,872 | 159,926,828 |
| St. Marie..... | 18 | 758 | 1,711,239 | 72,235 | 4,357,937 | 8,414,179 |
| St. Michel (de-Laval)..... | 72 | 938 | 2,530,194 | 221,116 | 4,439,975 | 9,150,317 |
| St. Pierre..... | 18 | 1,311 | 4,465,189 | 733,362 | 5,190,031 | 18,916,444 |
| St. Rémi..... | 12 | 360 | 832,409 | 55,150 | 3,594,144 | 5,246,103 |
| St. Thérèse de Blainville..... | 38 | 1,102 | 2,384,470 | 142,657 | 4,300,887 | 9,751,885 |
| Shawinigan Falls..... | 46 | 5,834 | 21,337,823 | 9,834,841 | 49,519,197 | 124,763,014 |

11.—Statistics of Manufactures of Municipalities, each with Factory Shipments of \$5,000,000 or Over and with Three or More Establishments 1955—continued

| Province and Municipality | Estab- lish- ments | Em- ployees | Earnings | Cost of Fuel and Electricity | Cost at Plant of Materials Used | Selling Value of Factory Shipments |
|---------------------------|--------------------------|----------------|-------------|------------------------------------|---------------------------------------|--|
| | No. | No. | \$ | \$ | \$ | \$ |
| Quebec—concluded | | | | | | |
| Sherbrooke..... | 114 | 7,679 | 19,562,779 | 1,269,654 | 43,179,925 | 82,349,900 |
| Sorel..... | 38 | 1,632 | 4,831,110 | 2,647,519 | 5,520,918 | 14,241,131 |
| Terrebonne..... | 19 | 659 | 1,728,795 | 96,293 | 2,802,217 | 6,076,542 |
| Three Rivers..... | 90 | 7,808 | 24,523,464 | 7,654,535 | 51,821,172 | 120,016,513 |
| Valleyfield..... | 38 | 3,437 | 9,926,814 | 787,166 | 19,637,754 | 35,780,883 |
| Verdun..... | 75 | 1,754 | 4,410,455 | 142,866 | 9,428,391 | 17,233,306 |
| Victoriaville..... | 58 | 2,765 | 5,990,078 | 228,832 | 11,594,186 | 21,694,897 |
| Waterloo..... | 21 | 612 | 1,565,660 | 97,018 | 2,929,341 | 5,505,800 |
| Westmount..... | 38 | 1,999 | 6,276,396 | 384,407 | 6,334,850 | 17,556,704 |
| Windsor..... | 14 | 1,698 | 5,801,138 | 1,108,123 | 11,175,632 | 23,683,306 |
| Ontario— | | | | | | |
| Acton..... | 19 | 928 | 2,554,388 | 287,028 | 6,518,685 | 11,621,230 |
| Amherstburg..... | 13 | 660 | 2,106,028 | 574,346 | 3,209,480 | 10,808,089 |
| Arrprior..... | 18 | 934 | 2,608,890 | 155,504 | 3,588,552 | 8,587,286 |
| Aurora..... | 18 | 762 | 1,985,778 | 85,716 | 4,767,171 | 9,129,326 |
| Aylmer..... | 15 | 490 | 1,172,278 | 145,104 | 22,360,599 | 25,651,839 |
| Barrie..... | 35 | 1,360 | 3,879,686 | 238,489 | 11,152,781 | 21,414,726 |
| Belleville..... | 65 | 3,045 | 9,834,029 | 2,158,781 | 12,998,023 | 36,178,741 |
| Bowmanville..... | 20 | 942 | 3,053,131 | 187,581 | 5,569,848 | 13,260,972 |
| Brampton..... | 35 | 1,337 | 3,894,815 | 278,083 | 6,541,272 | 14,295,405 |
| Brantford..... | 165 | 10,891 | 34,763,943 | 1,823,189 | 67,064,842 | 127,623,951 |
| Brockville..... | 48 | 2,416 | 7,672,178 | 535,570 | 46,600,547 | 62,600,847 |
| Burlington..... | 21 | 792 | 2,298,651 | 110,449 | 6,408,215 | 9,840,522 |
| Chatham..... | 78 | 3,727 | 12,685,461 | 1,012,448 | 69,424,438 | 93,794,028 |
| Cobourg..... | 29 | 1,063 | 3,449,954 | 198,516 | 5,444,642 | 11,701,933 |
| Collingwood..... | 23 | 825 | 2,355,247 | 120,918 | 4,075,147 | 7,480,215 |
| Cornwall..... | 47 | 4,540 | 13,600,185 | 2,448,918 | 21,708,059 | 48,525,331 |
| Delhi..... | 15 | 427 | 1,080,074 | 69,500 | 15,457,173 | 17,752,367 |
| Dundas..... | 36 | 1,194 | 3,817,274 | 334,623 | 4,659,010 | 10,728,010 |
| Dunnville..... | 23 | 1,284 | 3,070,883 | 174,547 | 10,350,634 | 15,348,169 |
| Eastview..... | 24 | 436 | 1,450,794 | 106,114 | 5,462,113 | 7,891,227 |
| Elmira..... | 22 | 544 | 1,630,918 | 184,270 | 5,052,369 | 9,262,877 |
| Fort Erie..... | 25 | 661 | 2,398,473 | 75,733 | 6,496,062 | 12,372,472 |
| Fort William..... | 65 | 3,886 | 13,521,640 | 3,308,674 | 24,501,312 | 57,009,049 |
| Galt..... | 96 | 6,357 | 18,888,679 | 834,814 | 33,649,114 | 64,879,912 |
| Gananoque..... | 19 | 849 | 2,654,415 | 215,021 | 4,203,209 | 8,842,825 |
| Georgetown..... | 17 | 1,286 | 4,132,307 | 242,785 | 7,551,968 | 13,782,498 |
| Goderich..... | 18 | 539 | 1,490,498 | 190,881 | 2,961,945 | 6,435,248 |
| Guelph..... | 116 | 6,267 | 20,017,561 | 1,226,218 | 37,594,676 | 73,025,706 |
| Hamilton..... | 588 | 55,202 | 200,311,361 | 24,807,502 | 395,047,070 | 844,835,085 |
| Hanover..... | 12 | 795 | 2,307,962 | 123,533 | 3,496,239 | 6,758,820 |
| Hespeler..... | 28 | 1,950 | 4,265,703 | 471,055 | 6,639,941 | 14,594,596 |
| Ingersoll..... | 22 | 1,118 | 3,293,330 | 213,203 | 8,824,479 | 15,371,987 |
| Kingston..... | 73 | 6,310 | 21,405,984 | 1,621,987 | 53,672,041 | 102,807,120 |
| Kitchener..... | 204 | 14,635 | 46,600,436 | 2,196,936 | 101,562,112 | 208,062,376 |
| Leamington..... | 22 | 1,353 | 4,146,819 | 368,114 | 13,913,589 | 25,888,845 |
| Leaside..... | 50 | 7,612 | 26,825,121 | 1,115,661 | 61,958,650 | 122,363,939 |
| Lindsay..... | 35 | 1,441 | 3,752,037 | 338,764 | 6,303,276 | 12,688,154 |
| London..... | 295 | 15,622 | 48,977,683 | 2,421,321 | 93,864,905 | 198,567,936 |
| Long Branch..... | 26 | 1,435 | 5,071,859 | 240,322 | 9,081,479 | 18,561,042 |
| Merriton..... | 19 | 2,141 | 8,592,767 | 1,264,044 | 16,677,045 | 32,555,737 |
| Midland..... | 23 | 951 | 2,230,108 | 113,382 | 6,948,465 | 10,764,256 |
| Milton..... | 16 | 1,082 | 3,884,242 | 517,461 | 5,477,452 | 12,931,662 |
| Mimico..... | 44 | 937 | 2,942,114 | 119,128 | 4,883,528 | 10,801,854 |
| New Liskeard..... | 14 | 688 | 1,948,199 | 87,122 | 4,009,423 | 7,227,047 |
| Newmarket..... | 24 | 923 | 2,793,362 | 152,664 | 5,047,392 | 11,507,189 |
| New Toronto..... | 47 | 7,024 | 28,500,789 | 1,959,545 | 97,947,853 | 187,316,070 |
| Niagara Falls..... | 82 | 5,539 | 19,310,803 | 5,933,601 | 38,620,550 | 96,645,017 |
| North Bay..... | 28 | 505 | 1,528,885 | 134,572 | 2,420,478 | 5,316,972 |
| Oakville..... | 51 | 1,455 | 4,523,635 | 287,424 | 7,337,724 | 17,643,933 |
| Orillia..... | 57 | 2,160 | 6,199,414 | 435,393 | 6,602,034 | 17,951,553 |
| Ottawa..... | 310 | 10,302 | 31,303,781 | 2,044,869 | 48,114,791 | 108,318,828 |
| Owen Sound..... | 49 | 2,636 | 7,759,584 | 315,468 | 8,907,743 | 23,739,906 |
| Paris..... | 23 | 1,380 | 4,032,254 | 166,446 | 7,151,557 | 12,214,752 |
| Pembroke..... | 32 | 1,503 | 3,711,982 | 180,458 | 6,723,081 | 13,242,592 |
| Perth..... | 26 | 914 | 2,075,919 | 111,063 | 5,161,872 | 9,946,058 |
| Peterborough..... | 95 | 9,662 | 33,929,742 | 1,266,030 | 64,899,737 | 117,597,499 |
| Port Arthur..... | 61 | 2,421 | 9,020,507 | 2,225,524 | 16,669,625 | 41,653,720 |
| Port Hope..... | 26 | 1,326 | 4,817,207 | 363,327 | 20,895,683 | 33,113,040 |
| Preston..... | 40 | 2,605 | 7,398,836 | 295,755 | 8,906,067 | 20,691,013 |
| Renfrew..... | 28 | 660 | 1,781,397 | 135,288 | 2,767,811 | 5,685,716 |
| St. Catharines..... | 101 | 5,536 | 19,260,531 | 929,319 | 24,914,488 | 55,560,226 |

11.—Statistics of Manufactures of Municipalities, each with Factory Shipments of \$5,000,000 or Over and with Three or More Establishments 1955—concluded

| Province and Municipality | Estab- lish- ments | Em- ployees | Earnings | Cost of Fuel and Electricity | Cost at Plant of Materials Used | Selling Value of Factory Shipments |
|---------------------------|--------------------------|----------------|-------------|------------------------------------|---------------------------------------|--|
| | No. | No. | \$ | \$ | \$ | \$ |
| Ontario—concluded | | | | | | |
| St. Mary's..... | 13 | 542 | 1,635,887 | 1,400,969 | 4,986,137 | 12,575,632 |
| St. Thomas..... | 48 | 2,003 | 6,278,789 | 368,407 | 10,697,273 | 23,798,778 |
| Sarnia..... | 52 | 7,003 | 28,562,579 | 14,430,168 | 155,908,558 | 309,416,107 |
| Sault Ste. Marie..... | 55 | 8,417 | 35,623,678 | 7,726,855 | 67,890,472 | 139,608,783 |
| Simcoe..... | 33 | 1,376 | 4,274,385 | 270,204 | 27,653,388 | 39,144,258 |
| Smith's Falls..... | 26 | 706 | 1,946,752 | 135,893 | 3,292,768 | 7,521,596 |
| Stratford..... | 68 | 3,485 | 10,335,997 | 418,313 | 19,875,237 | 36,788,120 |
| Streetsville..... | 15 | 557 | 1,654,832 | 178,075 | 5,197,890 | 8,591,816 |
| Sudbury..... | 62 | 1,090 | 3,268,209 | 343,881 | 6,071,511 | 13,083,215 |
| Swansea..... | 19 | 900 | 2,969,829 | 272,055 | 5,854,023 | 12,314,905 |
| Thorold..... | 26 | 2,746 | 11,737,822 | 3,374,104 | 23,323,616 | 49,567,223 |
| Tilbury..... | 10 | 695 | 2,394,395 | 130,017 | 1,635,986 | 6,217,146 |
| Tillsonburg..... | 27 | 981 | 2,533,336 | 243,964 | 12,959,021 | 18,684,883 |
| Toronto..... | 3,497 | 134,235 | 448,775,761 | 18,788,747 | 916,493,539 | 1,732,099,123 |
| Trenton..... | 33 | 1,564 | 4,422,701 | 533,039 | 9,057,062 | 19,721,806 |
| Wallaceburg..... | 28 | 2,129 | 7,221,255 | 870,684 | 7,201,674 | 19,516,875 |
| Waterloo..... | 64 | 3,017 | 9,216,442 | 480,726 | 14,368,957 | 45,425,005 |
| Welland..... | 55 | 4,342 | 15,056,222 | 2,656,144 | 23,084,524 | 55,377,848 |
| Whitby..... | 15 | 596 | 1,716,312 | 116,786 | 2,604,224 | 6,934,853 |
| Windsor..... | 334 | 25,654 | 101,810,378 | 4,975,650 | 186,275,443 | 374,512,418 |
| Woodbridge..... | 11 | 382 | 1,155,908 | 156,020 | 3,569,357 | 5,538,297 |
| Woodstock..... | 64 | 4,156 | 12,780,076 | 578,435 | 29,689,791 | 52,789,171 |
| Manitoba— | | | | | | |
| Brandon..... | 41 | 837 | 2,481,112 | 308,226 | 9,650,068 | 16,245,505 |
| Flin Flon..... | 9 | 259 | 1,017,172 | 446,970 | 6,252,995 | 15,931,625 |
| St. Boniface..... | 96 | 4,581 | 15,433,362 | 1,412,356 | 93,129,678 | 125,244,146 |
| Selkirk..... | 10 | 901 | 3,243,015 | 598,971 | 3,717,319 | 11,018,823 |
| Transcona..... | 8 | 1,965 | 6,419,729 | 332,584 | 9,523,714 | 18,252,548 |
| Winnipeg..... | 873 | 26,392 | 75,281,647 | 3,541,450 | 152,575,494 | 291,084,611 |
| Saskatchewan— | | | | | | |
| Moose Jaw..... | 48 | 1,296 | 4,079,553 | 1,120,318 | 33,207,027 | 48,569,981 |
| Prince Albert..... | 38 | 923 | 2,756,220 | 231,457 | 10,121,765 | 17,163,062 |
| Regina..... | 147 | 3,305 | 11,289,862 | 2,497,834 | 47,415,418 | 86,122,120 |
| Saskatoon..... | 121 | 2,966 | 9,338,487 | 1,101,752 | 47,723,596 | 70,671,208 |
| Alberta— | | | | | | |
| Calgary..... | 340 | 9,204 | 29,678,611 | 1,584,888 | 96,953,715 | 158,287,364 |
| Edmonton..... | 384 | 11,363 | 35,067,962 | 1,497,932 | 113,943,494 | 185,379,126 |
| Lethbridge..... | 63 | 1,149 | 3,224,366 | 235,027 | 7,750,020 | 15,832,379 |
| Medicine Hat..... | 41 | 944 | 2,344,822 | 144,923 | 13,257,656 | 18,910,072 |
| Red Deer..... | 23 | 280 | 796,793 | 70,802 | 2,877,235 | 5,014,957 |
| British Columbia— | | | | | | |
| Kamloops..... | 34 | 509 | 1,597,419 | 329,809 | 4,518,350 | 8,438,042 |
| Kelowna..... | 38 | 824 | 2,322,374 | 126,435 | 4,287,962 | 8,563,086 |
| Nanaimo..... | 26 | 523 | 1,829,859 | 129,715 | 3,763,117 | 7,419,227 |
| New Westminster..... | 130 | 8,116 | 28,504,965 | 1,608,110 | 73,673,674 | 137,527,166 |
| North Vancouver..... | 64 | 2,507 | 9,125,641 | 466,105 | 14,429,949 | 33,756,046 |
| Port Alberni..... | 19 | 2,827 | 10,061,827 | 435,455 | 24,695,111 | 44,721,166 |
| Prince George..... | 85 | 1,026 | 2,905,048 | 286,425 | 11,771,961 | 17,626,651 |
| Quesnel..... | 85 | 806 | 2,207,103 | 175,992 | 5,188,041 | 10,098,555 |
| Vancouver..... | 1,330 | 34,683 | 120,488,180 | 5,757,268 | 276,666,483 | 489,181,449 |
| Victoria..... | 201 | 4,839 | 16,812,711 | 929,842 | 28,726,427 | 61,375,045 |
| William's Lake..... | 45 | 315 | 879,615 | 93,249 | 3,782,926 | 5,946,728 |

CHAPTER XVI.—CAPITAL EXPENDITURES, CONSTRUCTION AND HOUSING

CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

This Chapter provides data on the capital expenditures made by all sectors of the Canadian economy on construction and on machinery and equipment together with summaries of other available statistics for the construction industry. Section 1 describes the purpose of capital expenditures and shows the amounts spent by each of the various industrial or economic sectors. Section 2 brings together a number of summaries of related series on construction activity: value of work performed by type of structure, value of materials used, salaries and wages paid and numbers employed, contracts awarded and building permits issued. Construction of dwelling units and government aid to house building is covered in Section 3.

Section 1.—Capital Expenditures on Construction and on Machinery and Equipment*

Capital expenditures made by business, institutions, governments and individuals form one of the most important determinants of the economic growth of the country, as well as being one of the principal factors affecting the level of economic activity within the nation at any given time. Capital expenditures for new physical assets create jobs for many people who provide the materials and labour required in the erection of new structures and in the manufacture of new machinery and equipment. In addition, they have the long-term effect of improving and expanding the productive facilities of the country. In the past, the volume of capital investment has been one of the most dynamic factors affecting the level of employment and income.

Since the end of World War II, capital investment in Canada has been increasing rapidly each year, with the one exception of 1954 when expenditures declined 4.8 p.c. from the previous year. In this period expenditures on new construction and for the purchase of new machinery and equipment totalled over \$50,000,000,000 and ranged from \$1,703,000,000 in 1946 to \$7,900,000,000 in 1956. In 1956 private capital investment was at an all-time high in Canada and accounted for 22 p.c. of the gross national product; when account is taken of similar expenditures by government, the proportion rises to well over 26 p.c. Thus approximately one-quarter of the national product is being directed to expanding and diversifying Canada's economy, a rate of investment in capital assets higher than that recorded by any other industrialized private-enterprise society.

* Information is given in greater detail in the Department of Trade and Commerce annual report, *Private and Public Investment in Canada*.

1.—Capital Expenditures on Construction and on Machinery and Equipment 1928-57

NOTE.—Actual expenditures 1928-55; preliminary actual 1956; intentions 1957.

| Year | Capital Expenditures | P.C. of Gross National Product | Year | Capital Expenditures | P.C. of Gross National Product |
|-----------|----------------------|--------------------------------|-------------------------|----------------------|--------------------------------|
| | \$'000,000 | | | \$'000,000 | |
| 1928..... | 1,296 | 21.2 | 1943..... | 1,485 | 13.3 |
| 1929..... | 1,518 | 24.6 | 1944..... | 1,309 | 11.0 |
| 1930..... | 1,287 | 23.2 | 1945..... | 1,284 | 10.8 |
| 1931..... | 881 | 19.3 | 1946..... | 1,703 | 14.2 |
| 1932..... | 491 | 13.0 | 1947..... | 2,489 | 18.1 |
| 1933..... | 327 | 9.2 | 1948..... | 3,175 | 20.3 |
| 1934..... | 416 | 10.3 | 1949 ¹ | 3,502 | 21.3 |
| 1935..... | 505 | 11.6 | 1950..... | 3,815 | 21.0 |
| 1936..... | 590 | 12.6 | 1951..... | 4,577 | 21.3 |
| 1937..... | 828 | 15.5 | 1952..... | 5,285 | 22.7 |
| 1938..... | 773 | 14.8 | 1953..... | 5,841 | 23.9 |
| 1939..... | 765 | 13.4 | 1954..... | 5,620 | 23.3 |
| 1940..... | 1,048 | 15.3 | 1955..... | 6,350 | 23.7 |
| 1941..... | 1,463 | 17.2 | 1956..... | 7,900 | 26.6 |
| 1942..... | 1,542 | 14.6 | 1957..... | 8,533 | 27.5 |

¹ Newfoundland included from 1949.

Maintenance of such a high rate of expansion and its accompanying improvement in the standard of living has been accomplished only because a substantial part of the investment funds have come from outside the country. This inflow of funds has been mainly from the United States, although considerable sums of money have also come from the United Kingdom and other countries which look upon Canada as a favourable investment field.

The expansion of capital investment in the postwar period has passed through three main phases. In the first years of that period, accumulated demand at home and abroad provided the stimulus for rapid expansion in capital outlays, with emphasis on consumer goods, agriculture and housing. The second phase was initiated after the outbreak of war in Korea in mid-1950 which created new demands on the economy, shifting the emphasis in the investment program towards defence and defence-supporting activities. The third phase followed the short-lived North American recession of 1953-54 and was related to the high and rising levels of activity in Canada's principal foreign markets. The strength of foreign demand encouraged heavy capital outlays in traditional export industries. Two persistent influences underlying the expansion of investment during the postwar period may be identified—a world environment that favoured the development of new and known resources, and a rapid growth and redistribution of population that created a need for additional social capital of all kinds. The strength of expansionary forces is demonstrated by the fact that capital outlays as a percentage of current dollar gross national product rose from 14.2 in 1946 to 26.6 in 1956. The extensive development of Canada's mineral, forest and water power resources contributed substantially to this trend.

The interplay of forces making for an expansion in capital outlays is particularly evident in the utilities sector. It became clear shortly after the War ended that the facilities in this field were inadequate to support the level of activity to which the economy was moving. Subsequently, the discovery of new resources, of which oil is the conspicuous example, and the expansion of such industries as non-ferrous metals and pulp and paper required heavy capital outlays on the related utilities. As a result, the utilities absorbed a greater share of the total program in the past six years than in the earlier postwar years.

The capital outlays of central electric stations, which form the largest single group in the utility field, ranged as high as 48 p.c. of the total for the group in 1951 and 1952, continued to advance until 1953 and 1954 when major projects were near completion, and in 1956 accounted for 36 p.c. of the group total. The growth of central electric stations

in the period is indicated by the substantial increase in electric power generated and by the new capacity that will become available by 1960. The nation's output of 43,425,000,000 kwh. in 1947 advanced to 78,004,000,000 kwh. in 1956 and will reach an estimated 110,000,000,000 kwh. by 1960.

Capital outlays by the railways have fluctuated considerably, but during the period they added to motive power and rolling-stock, constructed additional yard and siding track and extensions serving industrial sites, and built new lines to link newly developing areas with established settlements.

The commencement of work on the St. Lawrence Seaway late in 1954 involved a rapid growth of capital expenditures on water transport, while construction of pipelines for the transmission of oil and gas made this the most rapidly growing element in the utilities program. Expansion of outlays in the communications industry has been more continuous than in the other major utilities although the level of expenditures anticipated in 1957 involves a rate of increase substantially higher than in most postwar years.

A notable feature of postwar capital expenditure in manufacturing was the relatively small increase in outlays in the consumer soft-goods industries (foods and beverages, tobacco, rubber, leather, textiles, clothing, and printing and publishing). These industries in the first postwar years accounted for about 30 p.c. of all capital outlays in manufacturing but by 1956 the proportion had fallen to 15 p.c., the same percentage as in 1952 when the Korean war was influencing the pattern of expansion.

Heavy manufacturing industries have been expanding since the end of the War under varied influences. The iron and steel industry advanced sharply in 1952 to supply war materials for the Korean conflict, and again during 1956 and 1957 in line with the general expansion in the investment program. This latter influence also had a substantial effect on investment for primary cement production during 1956. Pulp and paper, Canada's largest manufactured export industry, grew steadily until 1953, in which year most firms were consolidating their rapid postwar growth. However, a second round of pulp and paper expansion commenced in 1955, indicating continued confidence in the export market for these products. Important developments have taken place in petroleum refineries in the Sarnia area of Ontario following the construction of the Interprovincial pipeline, and in the Vancouver area of British Columbia at the terminal of the Trans Mountain oil pipeline. A further development of considerable importance to the Canadian economy in recent years has been the development of a petrochemical industry based on the new discoveries of large amounts of oil and gas in the Prairie Provinces. The automobile industry's major rebuilding in 1953 and establishment of the chemical industry's synthetic plants in that period increased substantially the importance of these industries among Canada's manufactures.

The growth and redistribution of Canada's population has required substantial increases in capital expenditures in the trade, financial and commercial sectors of the economy, ranging from \$137,000,000 in 1946 to an estimated \$607,000,000 in 1956. Although, as a proportion of the total program, expenditures in these sectors have remained relatively stable, there has been a tendency for such expenditures to form a larger portion of the total at a time when investment in commodity-producing industries was slowing down. For example, in 1950 and in 1954 when some other sectors showed declines these groups accounted for 10.3 p.c. of the total program, whereas in 1956 when the general economy rose the proportion was only 7.7 p.c. The pattern of expenditures for institutional services—schools, hospitals, churches, etc.—was similar during the period, with the highest proportions of 6.0 and 6.4 p.c. in 1954 and 1955 respectively.

Capital expenditures by government departments have remained relatively constant as a proportion of the total except for 1952 when outlays for defence purposes rose sharply.

Investment in housing was at a high level and represented from 21 to 25 p.c. of the total investment program in the period 1946 to 1950. These high rates of building reflected accumulated needs backed by accumulated savings, a high rate of family formation, and favourable terms of financing. With the firming of interest rates in 1951, and renewed

scarcities of labour and materials, investment in housing declined in 1951 and 1952. New legislation in 1954, which broadened the mortgage market, strongly reinforced the upward trend in house-building activity that had begun in 1953. During 1956, difficulties in financing again began to have a restraining effect on house-building activity and the shortage of serviced land in some localities was a further complicating factor.

The development of Canada's natural resources has led to substantial investment in related industries as is evidenced by a brief examination of the effect of petroleum and natural gas output in Canada.

In the early postwar years, Canada's supply of petroleum was sufficient to meet only a very small part of the demand and most of the available supply was located far from the major markets. To help meet growing demand, refineries were built during 1947 and 1948 in the Montreal area of Quebec based on the use of imported crude oil. However from 1947, when the first major discoveries of new oil fields in Western Canada were made, the whole nature of the industry in Canada changed rapidly. Production of crude oil which in 1946 amounted to 7,600,000 bbl. advanced to 172,000,000 bbl. in 1956. To utilize these newly discovered resources, pipelines were laid from the Prairie Provinces to Central Canada and to the Pacific Coast. New refineries were built at Sarnia in Ontario and later in the Toronto area and in the Vancouver area of British Columbia as well as in the Prairie Provinces. Oil companies operating with increased refinery capacity found that although the market for gasoline products was expanding it was also becoming more competitive. To improve their position in the market, major oil companies launched a service station modernization and expansion program in 1952. Increased production of crude oil and natural gas also provided the base for a rapid rise of the petrochemical industry in Canada.

Although the construction of oil pipelines followed fairly closely the development of oil fields in the Prairie Provinces, it was not until the latter part of 1955 that gas trunk-pipeline construction was undertaken. The first of these was a line from the Peace River area through the mountains to the United States border and Vancouver. In 1956 a pipeline to bring natural gas from the Prairie Provinces to Eastern Canada was started.

Capital expenditures made directly in the petroleum and natural gas industry have increased very substantially in every phase of operations—development, refining, transporting and distributing. Total capital expenditures in 1946 were \$20,000,000 as compared with an estimated \$821,000,000 in 1957. This very large expansion has also generated large capital expenditures in such industries as iron and steel to supply steel pipe for the pipelines, in the utilities which distribute natural gas to the consumer when the pipelines reach the more populated areas, and in the chemical industry which uses petroleum products as raw materials.

As further evidence of major resource development in mining, the uranium and iron ore industries are outstanding examples. Development of uranium mining has been so rapid during the past few years that it may soon rank first in value of production of all metal mining. During World War II small-scale development was undertaken at Great Bear Lake by the Government followed by larger operations at Beaverlodge Lake in northern Saskatchewan. However, the Blind River area of Ontario is now the major source of supply. As for iron ore, the development of the Quebec-Labrador area has been most prominent, involving construction of a railway running 360 miles north from the St. Lawrence, a new townsite at Schefferville, dock facilities and the changing of a small village into a substantial shipping port at Sept-Îles, and hydro-electric developments close to the mining and dock areas. Large-scale expansion has also taken place in the Steep Rock area of northwestern Ontario. These developments have increased the importance of iron ore to the point where, in 1956, it occupied fourth place among the minerals of Canada, following oil, copper and nickel.

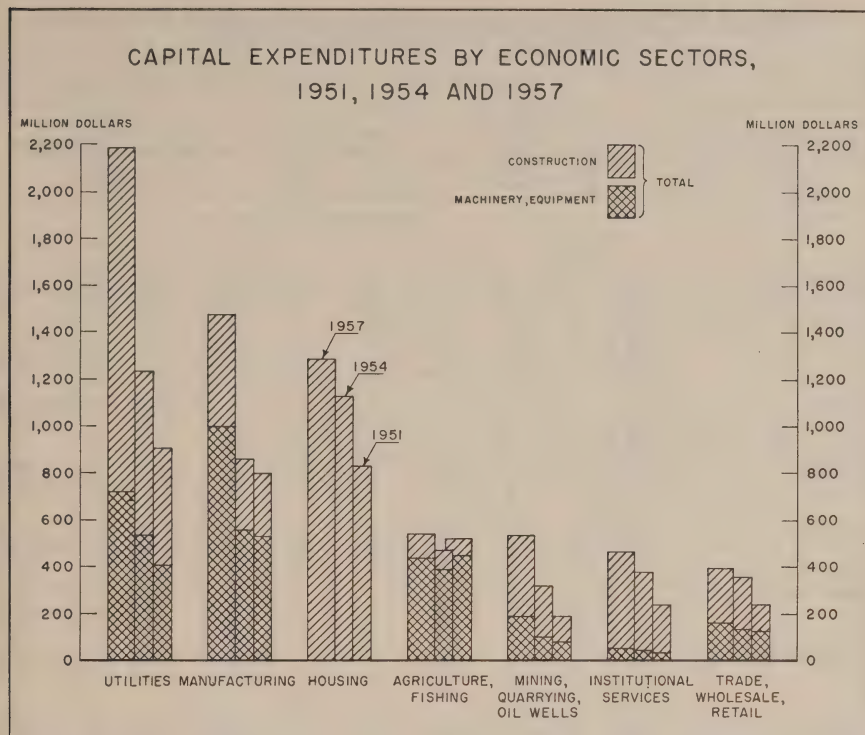
The growth of capital expenditures in Canada since the end of World War II has been one of the most dynamic factors in the country's rapid economic expansion. It has not only added to production facilities but has contributed to greatly increased labour productivity.

2.—Summary of Capital Expenditures and Repair and Maintenance Expenditures by Economic Sector 1955-57

NOTE.—Actual expenditures 1955; preliminary actual 1956; intentions 1957.

(Millions of dollars)

| Type of Enterprise and Year | Capital | | | Repair | | | Capital and Repair | | |
|--|------------------------|---|-------|------------------------|---|-------|------------------------|---|--------|
| | Con- struc- tion | Ma- chinery and Equip- ment | Total | Con- struc- tion | Ma- chinery and Equip- ment | Total | Con- struc- tion | Ma- chinery and Equip- ment | Total |
| Agriculture and fishing.....1955 | 87 | 339 | 426 | 66 | 123 | 189 | 153 | 462 | 615 |
| 1956 | 99 | 396 | 495 | 74 | 130 | 204 | 173 | 526 | 699 |
| 1957 | 104 | 435 | 539 | 76 | 135 | 211 | 180 | 570 | 750 |
| Forestry.....1955 | 36 | 27 | 63 | 18 | 31 | 49 | 54 | 58 | 112 |
| 1956 | 40 | 34 | 74 | 18 | 27 | 45 | 58 | 61 | 119 |
| 1957 | 35 | 27 | 62 | 19 | 25 | 44 | 54 | 52 | 106 |
| Mining, quarrying and oil wells.....1955 | 248 | 88 | 336 | 16 | 50 | 66 | 264 | 138 | 402 |
| 1956 | 369 | 167 | 536 | 19 | 60 | 79 | 388 | 227 | 615 |
| 1957 | 346 | 184 | 530 | 21 | 63 | 84 | 367 | 247 | 614 |
| Manufacturing.....1955 | 345 | 602 | 947 | 100 | 413 | 513 | 445 | 1,015 | 1,460 |
| 1956 | 477 | 872 | 1,349 | 105 | 447 | 552 | 582 | 1,319 | 1,901 |
| 1957 | 474 | 997 | 1,471 | 103 | 440 | 543 | 577 | 1,437 | 2,014 |
| Utilities.....1955 | 649 | 450 | 1,099 | 257 | 343 | 600 | 906 | 793 | 1,699 |
| 1956 | 1,047 | 583 | 1,630 | 293 | 387 | 680 | 1,340 | 970 | 2,310 |
| 1957 | 1,464 | 721 | 2,185 | 268 | 389 | 657 | 1,732 | 1,110 | 2,842 |
| Construction.....1955 | 16 | 158 | 174 | 4 | 103 | 107 | 20 | 261 | 281 |
| 1956 | 21 | 170 | 191 | 3 | 108 | 111 | 24 | 278 | 302 |
| 1957 | 17 | 151 | 168 | 3 | 100 | 103 | 20 | 251 | 271 |
| Housing.....1955 | 1,499 | — | 1,499 | 238 | — | 238 | 1,737 | — | 1,737 |
| 1956 | 1,575 | — | 1,575 | 256 | — | 256 | 1,831 | — | 1,831 |
| 1957 | 1,283 | — | 1,283 | 273 | — | 273 | 1,556 | — | 1,556 |
| Trade (wholesale and retail).....1955 | 181 | 148 | 329 | 33 | 30 | 63 | 214 | 178 | 392 |
| 1956 | 181 | 138 | 319 | 33 | 33 | 66 | 214 | 171 | 385 |
| 1957 | 234 | 159 | 393 | 34 | 35 | 69 | 268 | 194 | 462 |
| Finance, insurance and real estate.....1955 | 82 | 20 | 102 | 10 | 4 | 14 | 92 | 24 | 116 |
| 1956 | 103 | 22 | 125 | 10 | 5 | 15 | 113 | 27 | 140 |
| 1957 | 128 | 23 | 151 | 9 | 5 | 14 | 137 | 28 | 165 |
| Commercial services.....1955 | 33 | 97 | 130 | 12 | 41 | 53 | 45 | 138 | 183 |
| 1956 | 53 | 110 | 163 | 12 | 41 | 53 | 65 | 151 | 216 |
| 1957 | 66 | 118 | 184 | 14 | 41 | 55 | 80 | 159 | 239 |
| Institutional services.....1955 | 367 | 41 | 408 | 42 | 7 | 49 | 409 | 48 | 457 |
| 1956 | 360 | 42 | 402 | 43 | 7 | 50 | 403 | 49 | 452 |
| 1957 | 421 | 48 | 469 | 42 | 8 | 50 | 463 | 56 | 519 |
| Government departments...1955 | 771 | 66 | 837 | 194 | 30 | 224 | 965 | 96 | 1,061 |
| 1956 | 958 | 83 | 1,041 | 240 | 37 | 277 | 1,198 | 120 | 1,318 |
| 1957 | 1,014 | 84 | 1,098 | 254 | 40 | 294 | 1,268 | 124 | 1,392 |
| Totals.....1955 | 4,314 | 2,036 | 6,350 | 990 | 1,175 | 2,165 | 5,304 | 3,211 | 8,515 |
| 1956 | 5,283 | 2,617 | 7,900 | 1,106 | 1,282 | 2,388 | 6,389 | 3,899 | 10,288 |
| 1957 | 5,586 | 2,947 | 8,533 | 1,116 | 1,281 | 2,397 | 6,702 | 4,223 | 10,930 |



Details of some of the above economic sectors are given in Table 3. The construction industry and housing are dealt with in Sections 2 and 3 of this Chapter.

3.—Details of Capital Expenditures and Repair and Maintenance Expenditures for Certain Economic Sectors 1955-57

NOTE.—Actual expenditures 1955; preliminary actual 1956; intentions 1957.

(Millions of dollars)

| Type of Enterprise and Year | Capital | | | Repair | | | Capital and Repair | | |
|----------------------------------|------------------------|---|-------|------------------------|---|-------|------------------------|---|-------|
| | Con- struc- tion | Ma- chinery and Equip- ment | Total | Con- struc- tion | Ma- chinery and Equip- ment | Total | Con- struc- tion | Ma- chinery and Equip- ment | Total |
| MANUFACTURING | | | | | | | | | |
| Foods and beverages.....1955 | 38.5 | 65.2 | 103.7 | 12.7 | 43.6 | 56.3 | 51.2 | 108.8 | 160.0 |
| 1956 | 34.7 | 68.4 | 103.1 | 12.0 | 39.5 | 51.5 | 46.7 | 107.9 | 154.6 |
| 1957 | 30.4 | 62.9 | 93.3 | 11.1 | 37.6 | 48.7 | 41.5 | 100.5 | 142.0 |
| Tobacco and tobacco products1955 | 1.6 | 2.8 | 4.4 | 0.9 | 1.7 | 2.6 | 2.5 | 4.5 | 7.0 |
| 1956 | 3.1 | 3.9 | 7.0 | 0.8 | 1.9 | 2.7 | 3.9 | 5.8 | 9.7 |
| 1957 | 3.7 | 5.7 | 9.4 | 0.6 | 1.7 | 2.3 | 4.3 | 7.4 | 11.7 |
| Rubber products.....1955 | 3.0 | 12.1 | 15.1 | 0.9 | 6.8 | 7.7 | 3.9 | 18.9 | 22.8 |
| 1956 | 2.5 | 11.2 | 13.7 | 1.0 | 7.2 | 8.2 | 3.5 | 18.4 | 21.9 |
| 1957 | 7.1 | 18.3 | 25.4 | 1.1 | 7.3 | 8.4 | 8.2 | 25.6 | 33.8 |

3.—Details of Capital Expenditures and Repair and Maintenance Expenditures for Certain Economic Sectors 1955-57—continued

| Type of Enterprise and Year | Capital | | | Repair | | | Capital and Repair | | |
|--|------------------------|---|----------------|------------------------|---|--------------|------------------------|---|----------------|
| | Con- struc- tion | Ma- chinery and Equip- ment | Total | Con- struc- tion | Ma- chinery and Equip- ment | Total | Con- struc- tion | Ma- chinery and Equip- ment | Total |
| MANUFACTURING—concluded | | | | | | | | | |
| Leather products.....1955 | 0.5 | 1.8 | 2.3 | 0.6 | 2.3 | 2.9 | 1.1 | 4.1 | 5.2 |
| 1956 | 1.7 | 2.2 | 3.9 | 0.9 | 2.4 | 3.3 | 2.6 | 4.6 | 7.2 |
| 1957 | 1.3 | 1.6 | 2.9 | 0.6 | 2.1 | 2.7 | 1.9 | 3.7 | 5.6 |
| Textile products.....1955 | 7.6 | 20.4 | 28.0 | 2.9 | 16.6 | 19.5 | 10.5 | 37.0 | 47.5 |
| 1956 | 9.1 | 25.7 | 34.8 | 3.6 | 18.3 | 21.9 | 12.7 | 44.0 | 56.7 |
| 1957 | 6.1 | 30.9 | 37.0 | 5.0 | 18.9 | 23.9 | 11.1 | 49.8 | 60.9 |
| Clothing.....1955 | 1.4 | 7.8 | 9.2 | 1.2 | 3.8 | 5.0 | 2.6 | 11.6 | 14.2 |
| 1956 | 1.7 | 7.4 | 9.1 | 1.3 | 4.4 | 5.7 | 3.0 | 11.8 | 14.8 |
| 1957 | 0.8 | 6.3 | 7.1 | 1.2 | 4.3 | 5.5 | 2.0 | 10.6 | 12.6 |
| Wood products.....1955 | 12.1 | 30.9 | 43.0 | 7.6 | 29.3 | 36.9 | 19.7 | 60.2 | 79.9 |
| 1956 | 12.5 | 32.2 | 44.7 | 8.1 | 23.7 | 31.8 | 20.6 | 55.9 | 76.5 |
| 1957 | 7.9 | 20.8 | 28.7 | 6.3 | 21.7 | 28.0 | 14.2 | 42.5 | 56.7 |
| Paper products.....1955 | 33.1 | 105.8 | 138.9 | 8.9 | 75.1 | 84.0 | 42.0 | 180.9 | 222.9 |
| 1956 | 82.7 | 180.1 | 262.8 | 10.6 | 86.6 | 97.2 | 93.3 | 266.7 | 360.0 |
| 1957 | 59.2 | 180.3 | 239.5 | 9.8 | 87.0 | 96.8 | 69.0 | 267.3 | 336.3 |
| Printing, publishing and allied trades.....1955 | 6.4 | 17.7 | 24.1 | 2.2 | 4.4 | 6.6 | 8.6 | 22.1 | 30.7 |
| 1956 | 6.0 | 19.5 | 25.5 | 1.8 | 5.0 | 6.8 | 7.8 | 24.5 | 32.3 |
| 1957 | 16.9 | 16.8 | 33.7 | 1.6 | 4.5 | 6.1 | 18.5 | 21.3 | 39.8 |
| Iron and steel products.....1955 | 27.0 | 68.2 | 95.2 | 12.6 | 75.7 | 88.3 | 39.6 | 143.9 | 183.5 |
| 1956 | 44.4 | 114.3 | 158.7 | 14.7 | 85.4 | 100.1 | 59.1 | 199.7 | 258.8 |
| 1957 | 54.1 | 148.6 | 202.7 | 15.0 | 80.6 | 95.6 | 69.1 | 229.2 | 298.3 |
| Transportation equipment....1955 | 20.2 | 34.1 | 54.3 | 10.6 | 28.2 | 38.8 | 30.8 | 62.3 | 93.1 |
| 1956 | 18.2 | 42.3 | 60.5 | 10.4 | 30.4 | 40.8 | 28.6 | 72.7 | 101.3 |
| 1957 | 18.0 | 54.7 | 72.7 | 10.4 | 30.2 | 40.6 | 28.4 | 84.9 | 113.3 |
| Non-ferrous metal products..1955 | 37.3 | 46.4 | 83.7 | 8.2 | 43.8 | 52.0 | 45.5 | 90.2 | 135.7 |
| 1956 | 55.9 | 54.8 | 110.7 | 9.5 | 53.7 | 63.2 | 65.4 | 108.5 | 173.9 |
| 1957 | 85.0 | 113.7 | 198.7 | 8.6 | 50.1 | 58.7 | 93.6 | 163.8 | 257.4 |
| Electrical apparatus and supplies.....1955 | 8.1 | 20.4 | 28.5 | 2.7 | 13.3 | 16.0 | 10.8 | 33.7 | 44.5 |
| 1956 | 13.2 | 26.4 | 39.6 | 2.9 | 13.5 | 16.4 | 16.1 | 39.9 | 56.0 |
| 1957 | 15.1 | 40.9 | 56.0 | 3.3 | 13.7 | 17.0 | 18.4 | 54.6 | 73.0 |
| Non-metallic mineral products.....1955 | 22.2 | 25.4 | 47.6 | 3.0 | 27.0 | 30.0 | 25.2 | 52.4 | 77.6 |
| 1956 | 51.7 | 64.8 | 116.5 | 2.6 | 28.6 | 31.2 | 54.3 | 93.4 | 147.7 |
| 1957 | 27.0 | 52.3 | 79.3 | 2.8 | 31.3 | 34.1 | 20.8 | 83.6 | 113.4 |
| Products of petroleum and coal.....1955 | 100.4 | 8.7 | 109.1 | 19.1 | 8.1 | 27.2 | 119.5 | 16.8 | 136.3 |
| 1956 | 89.2 | 16.3 | 105.5 | 17.9 | 10.8 | 28.7 | 107.1 | 27.1 | 134.2 |
| 1957 | 93.5 | 12.3 | 105.8 | 18.3 | 10.3 | 28.6 | 111.8 | 22.6 | 134.4 |
| Chemical products.....1955 | 21.6 | 34.7 | 56.3 | 4.7 | 30.1 | 34.8 | 26.3 | 64.8 | 91.1 |
| 1956 | 47.8 | 75.1 | 122.9 | 5.9 | 32.5 | 38.4 | 53.7 | 107.6 | 161.3 |
| 1957 | 45.7 | 92.6 | 138.3 | 5.9 | 35.6 | 41.5 | 51.6 | 128.2 | 179.8 |
| Miscellaneous.....1955 | 3.7 | 7.1 | 10.8 | 1.3 | 3.3 | 4.6 | 5.0 | 10.4 | 15.4 |
| 1956 | 2.5 | 7.6 | 10.1 | 1.3 | 2.9 | 4.2 | 3.8 | 10.5 | 14.3 |
| 1957 | 1.8 | 7.4 | 9.2 | 1.3 | 3.2 | 4.5 | 3.1 | 10.6 | 13.7 |
| Capital items charged to operating expenses.....1955 | — | 92.3 | 92.3 | — | — | — | — | 92.3 | 92.3 |
| 1956 | — | 119.9 | 119.9 | — | — | — | — | 119.9 | 119.9 |
| 1957 | — | 130.6 | 130.6 | — | — | — | — | 130.6 | 130.6 |
| Totals, Manufacturing....1955 | 344.7 | 601.8 | 946.5 | 100.1 | 413.1 | 513.2 | 444.8 | 1,014.9 | 1,459.7 |
| 1956 | 476.9 | 872.1 | 1,349.0 | 105.3 | 446.8 | 552.1 | 582.2 | 1,318.9 | 1,901.1 |
| 1957 | 473.6 | 996.7 | 1,470.3 | 102.9 | 440.1 | 543.0 | 576.5 | 1,436.8 | 2,013.3 |

3.—Details of Capital Expenditures and Repair and Maintenance Expenditures for Certain Economic Sectors 1955-57—continued

| Type of Enterprise and Year | Capital | | | Repair | | | Capital and Repair | | |
|---|------------------------|---|----------------|------------------------|---|--------------|------------------------|---|----------------|
| | Con- struc- tion | Ma- chinery and Equip- ment | Total | Con- struc- tion | Ma- chinery and Equip- ment | Total | Con- struc- tion | Ma- chinery and Equip- ment | Total |
| UTILITIES | | | | | | | | | |
| Central electric stations.....1955 | 307.0 | 98.6 | 405.6 | 33.2 | 21.9 | 55.1 | 340.2 | 120.5 | 460.7 |
| 1956 | 447.6 | 139.4 | 587.0 | 35.9 | 20.5 | 56.4 | 483.5 | 159.9 | 643.4 |
| 1957 | 595.4 | 149.9 | 745.3 | 39.9 | 20.2 | 60.1 | 635.3 | 170.1 | 805.4 |
| Gas distribution.....1955 | 18.0 | 1.7 | 19.7 | 3.0 | 1.9 | 4.9 | 21.0 | 3.6 | 24.6 |
| 1956 | 43.2 | 3.3 | 46.5 | 3.4 | 1.9 | 5.3 | 46.6 | 5.2 | 51.8 |
| 1957 | 48.4 | 3.0 | 51.4 | 3.1 | 1.6 | 4.7 | 51.5 | 4.6 | 56.1 |
| Steam railways and tele- graphs.....1955 | 88.6 | 107.8 | 196.4 | 171.1 | 163.0 | 334.1 | 259.7 | 270.8 | 530.5 |
| 1956 | 135.8 | 177.0 | 312.8 | 200.1 | 192.2 | 392.3 | 335.9 | 369.2 | 705.1 |
| 1957 | 152.7 | 245.0 | 397.7 | 169.4 | 193.9 | 363.3 | 322.1 | 438.9 | 761.0 |
| Electric railways.....1955 | 4.8 | 9.8 | 14.6 | 5.4 | 14.8 | 20.2 | 10.2 | 24.6 | 34.8 |
| 1956 | 8.3 | 12.9 | 21.2 | 5.6 | 15.1 | 20.7 | 13.9 | 28.0 | 41.9 |
| 1957 | 8.7 | 11.8 | 20.5 | 5.3 | 15.8 | 21.1 | 14.0 | 27.6 | 41.6 |
| Water transport and services..1955 | 19.0 | 25.9 | 44.9 | 3.0 | 15.3 | 18.3 | 22.0 | 41.2 | 63.2 |
| 1956 | 56.8 | 24.2 | 81.0 | 3.5 | 17.4 | 20.9 | 60.3 | 41.6 | 101.9 |
| 1957 | 125.4 | 28.5 | 153.9 | 4.5 | 16.6 | 21.1 | 129.9 | 45.1 | 175.0 |
| Motor carriers.....1955 | 2.6 | 35.8 | 38.4 | 0.9 | 35.5 | 36.4 | 3.5 | 71.3 | 74.8 |
| 1956 | 4.3 | 30.8 | 35.1 | 1.1 | 34.9 | 36.0 | 5.4 | 65.7 | 71.1 |
| 1957 | 4.6 | 26.2 | 30.8 | 1.2 | 34.3 | 35.5 | 5.8 | 60.5 | 66.3 |
| Grain elevators.....1955 | 8.4 | 2.5 | 10.9 | 5.0 | 1.9 | 6.9 | 13.4 | 4.4 | 17.8 |
| 1956 | 11.0 | 3.6 | 14.6 | 4.7 | 2.1 | 6.8 | 15.7 | 5.7 | 21.4 |
| 1957 | 5.9 | 1.9 | 7.8 | 4.3 | 1.7 | 6.0 | 10.2 | 3.6 | 13.8 |
| Telephones.....1955 | 90.8 | 121.1 | 211.9 | 19.3 | 57.5 | 76.8 | 110.1 | 178.6 | 288.7 |
| 1956 | 91.2 | 144.5 | 235.7 | 21.5 | 63.4 | 84.9 | 112.7 | 207.9 | 320.6 |
| 1957 | 110.1 | 186.0 | 296.1 | 22.4 | 64.8 | 87.2 | 132.5 | 250.8 | 383.3 |
| Broadcasting.....1955 | 4.1 | 7.3 | 11.4 | 0.3 | 1.7 | 2.0 | 4.4 | 9.0 | 13.4 |
| 1956 | 3.4 | 3.9 | 7.3 | 0.4 | 1.7 | 2.1 | 3.8 | 5.6 | 9.4 |
| 1957 | 1.7 | 4.0 | 5.7 | 0.5 | 2.0 | 2.5 | 2.2 | 6.0 | 8.2 |
| Municipal waterworks.....1955 | 48.2 | 2.2 | 50.4 | 12.2 | 1.2 | 13.4 | 60.4 | 3.4 | 63.8 |
| 1956 | 64.5 | 2.8 | 67.3 | 12.8 | 1.6 | 14.4 | 77.3 | 4.4 | 81.7 |
| 1957 | 86.8 | 4.1 | 90.9 | 13.1 | 2.1 | 15.2 | 99.9 | 6.2 | 106.1 |
| Other utilities ¹1955 | 57.4 | 27.0 | 84.4 | 4.0 | 28.5 | 32.5 | 61.4 | 55.5 | 116.9 |
| 1956 | 180.6 | 28.3 | 208.9 | 3.6 | 36.3 | 39.9 | 184.2 | 64.6 | 248.8 |
| 1957 | 324.5 | 46.1 | 370.6 | 4.2 | 36.1 | 40.3 | 328.7 | 82.2 | 410.9 |
| Capital items charged to operating expenses.....1955 | — | 10.2 | 10.2 | — | — | — | — | 10.2 | 10.2 |
| 1956 | — | 12.6 | 12.6 | — | — | — | — | 12.6 | 12.6 |
| 1957 | — | 14.2 | 14.2 | — | — | — | — | 14.2 | 14.2 |
| Totals, Utilities.....1955 | 648.9 | 449.9 | 1,098.8 | 257.4 | 343.2 | 600.6 | 906.3 | 793.1 | 1,699.4 |
| 1956 | 1,046.7 | 583.3 | 1,630.0 | 292.6 | 387.1 | 679.7 | 1,339.3 | 970.4 | 2,309.7 |
| 1957 | 1,464.2 | 720.7 | 2,184.9 | 267.9 | 389.1 | 657.0 | 1,732.1 | 1,109.8 | 2,841.9 |
| TRADE | | | | | | | | | |
| Wholesale.....1955 | 21.3 | 26.0 | 47.3 | 4.9 | 6.6 | 11.5 | 26.2 | 32.6 | 58.8 |
| 1956 | 32.9 | 24.6 | 57.5 | 4.3 | 7.5 | 11.8 | 37.2 | 32.1 | 69.3 |
| 1957 | 40.7 | 18.9 | 59.6 | 4.0 | 7.5 | 11.5 | 44.7 | 26.4 | 71.1 |
| Chain stores.....1955 | 30.2 | 24.8 | 55.0 | 4.0 | 3.0 | 7.0 | 34.2 | 27.8 | 62.0 |
| 1956 | 28.0 | 23.5 | 51.5 | 3.7 | 3.7 | 7.4 | 31.7 | 27.2 | 58.9 |
| 1957 | 37.5 | 30.0 | 67.5 | 3.4 | 4.0 | 7.4 | 40.9 | 34.0 | 74.9 |

¹ Includes air transport, warehousing and oil and gas pipelines.

3.—Details of Capital Expenditures and Repair and Maintenance Expenditures for Certain Economic Sectors 1955-57—concluded

| Type of Enterprise and Year | Capital | | | Repair | | | Capital and Repair | | |
|---|-------------------|---|--------------|-------------------|---|-------------|--------------------|---|--------------|
| | Con- struction | Ma- chinery and Equip- ment | Total | Con- struction | Ma- chinery and Equip- ment | Total | Con- struction | Ma- chinery and Equip- ment | Total |
| TRADE—concluded | | | | | | | | | |
| Independent stores.....1955 | 72.7 | 53.3 | 126.0 | 12.4 | 9.4 | 21.8 | 85.1 | 62.7 | 147.8 |
| 1956 | 58.6 | 48.3 | 106.9 | 12.3 | 11.0 | 23.3 | 70.9 | 59.3 | 130.2 |
| 1957 | 82.5 | 62.1 | 144.6 | 12.4 | 11.7 | 24.1 | 94.9 | 73.8 | 168.7 |
| Department stores.....1955 | 19.4 | 7.8 | 27.2 | 4.1 | 2.5 | 6.6 | 23.5 | 10.3 | 33.8 |
| 1956 | 12.9 | 4.4 | 17.3 | 3.9 | 2.7 | 6.6 | 16.8 | 7.1 | 23.9 |
| 1957 | 15.8 | 6.0 | 21.8 | 3.9 | 2.7 | 6.6 | 19.7 | 8.7 | 28.4 |
| Automotive trade.....1955 | 37.7 | 23.0 | 60.7 | 7.8 | 8.5 | 16.3 | 45.5 | 31.5 | 77.0 |
| 1956 | 48.8 | 24.1 | 72.9 | 8.8 | 8.4 | 17.2 | 57.6 | 32.5 | 90.1 |
| 1957 | 57.5 | 28.0 | 85.5 | 9.8 | 9.0 | 18.8 | 67.3 | 37.0 | 104.3 |
| Capital items charged to operating expenses.....1955 | — | 13.2 | 13.2 | — | — | — | — | 13.2 | 13.2 |
| 1956 | — | 12.7 | 12.7 | — | — | — | — | 12.7 | 12.7 |
| 1957 | — | 14.4 | 14.4 | — | — | — | — | 14.4 | 14.4 |
| Totals, Trade.....1955 | 181.3 | 148.1 | 329.4 | 33.2 | 30.0 | 63.2 | 214.5 | 178.1 | 392.6 |
| 1956 | 181.2 | 137.6 | 318.8 | 33.0 | 33.3 | 66.3 | 214.2 | 170.9 | 385.1 |
| 1957 | 234.0 | 159.4 | 393.4 | 33.5 | 34.9 | 68.4 | 267.5 | 194.3 | 461.8 |
| INSTITUTIONAL SERVICES | | | | | | | | | |
| Churches.....1955 | 33.9 | 4.2 | 38.1 | 8.0 | 0.4 | 8.4 | 41.9 | 4.6 | 46.5 |
| 1956 | 43.8 | 2.6 | 46.4 | 7.0 | 0.5 | 7.5 | 50.8 | 3.1 | 53.9 |
| 1957 | 62.3 | 3.2 | 65.5 | 7.2 | 0.5 | 7.7 | 69.5 | 3.7 | 73.2 |
| Universities.....1955 | 22.0 | 3.2 | 25.2 | 3.1 | 0.2 | 3.3 | 25.1 | 3.4 | 28.5 |
| 1956 | 25.2 | 4.0 | 29.2 | 3.1 | 0.3 | 3.4 | 28.3 | 4.3 | 32.6 |
| 1957 | 29.0 | 4.9 | 33.9 | 3.2 | 0.3 | 3.5 | 32.2 | 5.2 | 37.4 |
| Schools.....1955 | 171.4 | 17.0 | 188.4 | 18.2 | 2.7 | 20.9 | 189.6 | 19.7 | 209.3 |
| 1956 | 172.4 | 16.8 | 189.2 | 18.2 | 3.0 | 21.2 | 190.6 | 19.8 | 210.4 |
| 1957 | 180.4 | 17.2 | 197.6 | 18.5 | 3.2 | 21.7 | 198.9 | 20.4 | 219.3 |
| Hospitals.....1955 | 130.0 | 16.2 | 146.2 | 11.7 | 3.3 | 15.0 | 141.7 | 19.5 | 161.2 |
| 1956 | 107.8 | 18.3 | 126.1 | 13.1 | 3.4 | 16.5 | 120.9 | 21.7 | 142.6 |
| 1957 | 135.8 | 22.3 | 158.1 | 12.4 | 3.7 | 16.1 | 148.2 | 26.0 | 174.2 |
| Other institutional services ¹1955 | 9.6 | 0.7 | 10.3 | 1.1 | — | 1.1 | 10.7 | 0.7 | 11.4 |
| 1956 | 10.5 | 0.5 | 11.0 | 1.3 | — | 1.3 | 11.8 | 0.5 | 12.3 |
| 1957 | 13.8 | 0.7 | 14.5 | 0.5 | — | 0.5 | 14.3 | 0.7 | 15.0 |
| Totals, Institutions.....1955 | 366.9 | 41.3 | 408.2 | 42.1 | 6.6 | 48.7 | 409.0 | 47.9 | 456.9 |
| 1956 | 359.7 | 42.2 | 401.9 | 42.7 | 7.2 | 49.9 | 402.4 | 49.4 | 451.8 |
| 1957 | 421.3 | 48.3 | 469.6 | 41.8 | 7.7 | 49.5 | 463.1 | 56.0 | 519.1 |

¹ Includes privately operated social and welfare institutions.

A summary of the capital expenditures in each province for the years 1955-57 is given in Table 4. Such expenditures represent gross additions to the capital stock of the province and are a reflection of economic activity in that area, but the actual production of these assets may generate its major employment in income-giving effects in other regions. For example the spending of millions of dollars on oil refineries and pipelines in Western Canada means activity in the steel industries of Ontario as well as construction activity in the Prairie Provinces.

4.—Summary of Capital Expenditures and Repair and Maintenance Expenditures by Province 1955-57

NOTE.—Actual expenditures 1955; preliminary actual 1956; intentions 1957.

(Millions of dollars)

| Province and Year | Capital | | | Repair | | | Capital and Repair | | |
|---|------------------------|---|--------------|------------------------|---|--------------|------------------------|---|---------------|
| | Con- struc- tion | Ma- chinery and Equip- ment | Total | Con- struc- tion | Ma- chinery and Equip- ment | Total | Con- struc- tion | Ma- chinery and Equip- ment | Total |
| Newfoundland.....1955 | 66 | 23 | 89 | 14 | 14 | 28 | 80 | 37 | 117 |
| 1956 | 63 | 28 | 91 | 17 | 13 | 30 | 80 | 41 | 121 |
| 1957 | 77 | 41 | 118 | 17 | 11 | 28 | 94 | 52 | 146 |
| Prince Edward Island.....1955 | 12 | 9 | 21 | 4 | 5 | 9 | 16 | 14 | 30 |
| 1956 | 12 | 9 | 21 | 4 | 7 | 11 | 16 | 16 | 32 |
| 1957 | 12 | 10 | 22 | 4 | 6 | 10 | 16 | 16 | 32 |
| Nova Scotia.....1955 | 108 | 56 | 164 | 26 | 31 | 57 | 134 | 87 | 221 |
| 1956 | 112 | 60 | 172 | 35 | 34 | 69 | 147 | 94 | 241 |
| 1957 | 106 | 73 | 179 | 35 | 35 | 70 | 141 | 108 | 249 |
| New Brunswick.....1955 | 126 | 42 | 168 | 31 | 30 | 61 | 157 | 72 | 229 |
| 1956 | 128 | 54 | 182 | 39 | 32 | 71 | 167 | 86 | 253 |
| 1957 | 120 | 60 | 180 | 39 | 32 | 71 | 159 | 92 | 251 |
| Quebec.....1955 | 1,074 | 472 | 1,546 | 236 | 305 | 541 | 1,310 | 777 | 2,087 |
| 1956 | 1,269 | 578 | 1,847 | 266 | 309 | 575 | 1,535 | 887 | 2,422 |
| 1957 | 1,313 | 672 | 1,985 | 261 | 307 | 568 | 1,574 | 979 | 2,553 |
| Ontario.....1955 | 1,486 | 785 | 2,271 | 362 | 453 | 815 | 1,848 | 1,238 | 3,086 |
| 1956 | 1,808 | 1,022 | 2,830 | 388 | 503 | 891 | 2,196 | 1,525 | 3,721 |
| 1957 | 2,005 | 1,159 | 3,164 | 400 | 502 | 902 | 2,405 | 1,661 | 4,066 |
| Manitoba.....1955 | 197 | 104 | 301 | 58 | 58 | 116 | 255 | 162 | 417 |
| 1956 | 245 | 114 | 359 | 68 | 70 | 138 | 313 | 184 | 497 |
| 1957 | 291 | 118 | 409 | 68 | 72 | 140 | 359 | 190 | 549 |
| Saskatchewan.....1955 | 219 | 130 | 349 | 64 | 58 | 122 | 283 | 188 | 471 |
| 1956 | 290 | 171 | 461 | 70 | 72 | 142 | 360 | 243 | 603 |
| 1957 | 280 | 179 | 459 | 69 | 72 | 141 | 349 | 251 | 600 |
| Alberta.....1955 | 548 | 187 | 735 | 88 | 95 | 183 | 636 | 282 | 918 |
| 1956 | 644 | 266 | 910 | 104 | 105 | 209 | 748 | 371 | 1,119 |
| 1957 | 609 | 250 | 859 | 107 | 109 | 216 | 716 | 359 | 1,075 |
| British Columbia ¹1955 | 479 | 228 | 707 | 108 | 125 | 233 | 587 | 353 | 940 |
| 1956 | 711 | 315 | 1,026 | 114 | 137 | 251 | 825 | 452 | 1,277 |
| 1957 | 774 | 387 | 1,161 | 114 | 135 | 249 | 888 | 522 | 1,410 |
| Canada².....1955 | 4,315 | 2,036 | 6,351 | 991 | 1,174 | 2,165 | 5,306 | 3,210 | 8,516 |
| 1956 | 5,282 | 2,617 | 7,899 | 1,105 | 1,282 | 2,387 | 6,387 | 3,899 | 10,286 |
| 1957 | 5,587 | 2,949 | 8,536 | 1,114 | 1,281 | 2,395 | 6,701 | 4,230 | 10,931 |

¹ Includes the Yukon and Northwest Territories.
Table 2 are caused by minor adjustments and rounding.

² Slight differences between these and totals those of

Section 2.—The Construction Industry

Subsection 1.—Value of Construction Work Performed

Statistics of the construction industry are based largely on information received at the same time and from the same sources as the data on capital expenditures which appear in Section 1.* The data represent the estimated total value of all new and repair construction.

Canada's intended construction program for 1957 is estimated at \$6,702,000,000, about 5 p.c. above the 1956 level. This contrasts with a rise in 1956 of more than \$1,000,000,000 or 20 p.c. over the 1955 realization of \$5,311,000,000. New construction in 1957, estimated at \$5,563,000,000, is expected to account for most of the increase. The value of repairs to be undertaken in that year is estimated at \$1,139,000,000.

* An explanation of sources and methods is given in the 1955 Year Book, p. 727, and DBS annual report *Construction in Canada*.

Table 5 shows construction, both new and repair, in constant as well as current dollars. It is interesting to note that in 1956 construction work accounted for over one-fifth of the gross national product. The slight differences between these figures and the corresponding figures of Section 1 are accounted for by rounding and minor revisions.

5.—Value of Construction Work Performed, Current and Constant (1949) Dollars 1948-57

NOTE.—Actual 1948-55; preliminary 1956; intentions 1957.

(Millions of dollars)

| Year | New Construction | | Repair Construction | | Total Construction | | Total Construction as P.C. of Gross National Product | |
|-------------------------|------------------|----------|---------------------|----------|--------------------|----------|--|----------|
| | Current | Constant | Current | Constant | Current | Constant | Current | Constant |
| 1948..... | 1,877 | 1,947 | 694 | 720 | 2,571 | 2,667 | 16.5 | 17.0 |
| 1949 ¹ | 2,124 | 2,124 | 732 | 732 | 2,856 | 2,856 | 17.3 | 17.5 |
| 1950..... | 2,366 | 2,247 | 766 | 727 | 3,132 | 2,974 | 17.2 | 17.2 |
| 1951..... | 2,734 | 2,308 | 927 | 783 | 3,661 | 3,091 | 17.0 | 16.9 |
| 1952..... | 3,282 | 2,616 | 916 | 730 | 4,198 | 3,346 | 18.0 | 17.1 |
| 1953..... | 3,665 | 2,824 | 974 | 749 | 4,640 | 3,573 | 19.0 | 17.6 |
| 1954..... | 3,700 | 2,852 | 1,023 | 787 | 4,723 | 3,639 | 19.6 | 18.5 |
| 1955..... | 4,270 | 3,206 | 1,041 | 779 | 5,311 | 3,985 | 19.8 | 18.5 |
| 1956..... | 5,260 | 3,730 | 1,129 | 798 | 6,389 | 4,528 | 21.2 | 15.0 |
| 1957..... | 5,563 | .. | 1,139 | .. | 6,702 | .. | .. | .. |

¹ Newfoundland included from 1949.

Table 6, which compares contract construction with other construction, illustrates that contractors are accounting for a greater proportion of the work each year; in 1954 they handled 72 p.c. of all work; in 1955, 73 p.c.; in 1956, 76 p.c.; and in 1957, 77 p.c. This trend is apparent in both new and repair work.

6.—Value of Construction Work Performed by Contractors and Others 1954-57

NOTE.—Actual 1954 and 1955; preliminary 1956; intentions 1957.

(Millions of dollars)

| Item | 1954 | 1955 | 1956 | 1957 |
|---|--------------|--------------|--------------|--------------|
| Contract Construction | 3,382 | 3,876 | 4,849 | 5,141 |
| New..... | 3,011 | 3,484 | 4,388 | 4,659 |
| Repair..... | 371 | 392 | 461 | 482 |
| Other Construction¹ | 1,341 | 1,435 | 1,540 | 1,561 |
| New..... | 689 | 786 | 872 | 904 |
| Repair..... | 652 | 649 | 668 | 657 |
| Totals, Construction | 4,723 | 5,311 | 6,389 | 6,702 |
| New..... | 3,700 | 4,270 | 5,260 | 5,563 |
| Repair..... | 1,023 | 1,041 | 1,129 | 1,139 |

¹ Work done by the labour forces of utility, manufacturing, mining and logging firms and government departments, home-owner builders and other persons or firms not primarily engaged in the construction industry.

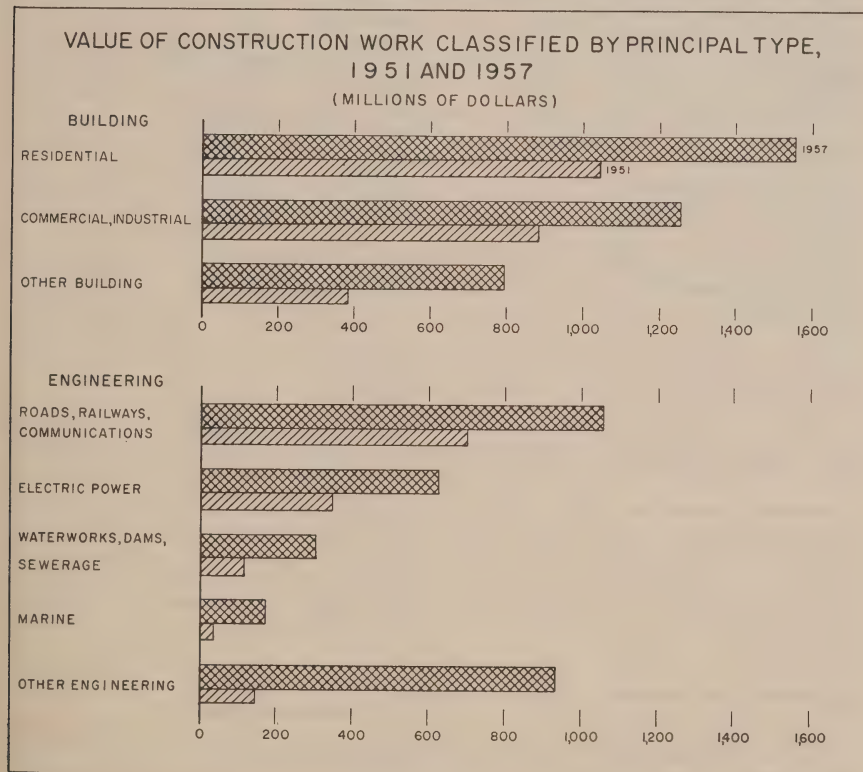
The estimated increase in construction in 1957, a moderate 5 p.c., was low because of an anticipated drop in residential construction. Estimates for most other principal types of construction—electric power construction, gas and oil facilities, commercial and institutional construction—were substantially higher as shown in Table 7.

7.—Value of Construction Work Performed by Principal Type 1954-57

NOTE.—Actual 1954 and 1955; preliminary 1956; intentions 1957.

(Millions of dollars)

| Type of Construction | 1954 | | 1955 | | 1956 | | 1957 | |
|--|--------------|---------------|--------------|---------------|--------------|---------------|--------------|---------------|
| | Value | P.C. of Total | Value | P.C. of Total | Value | P.C. of Total | Value | P.C. of Total |
| Building Construction | 2,914 | 61.7 | 3,378 | 63.6 | 3,789 | 59.3 | 3,608 | 53.8 |
| Residential..... | 1,400 | 29.6 | 1,737 | 32.7 | 1,830 | 28.6 | 1,556 | 23.2 |
| Industrial..... | 364 | 7.7 | 398 | 7.5 | 594 | 9.3 | 568 | 8.4 |
| Commercial..... | 546 | 11.6 | 514 | 9.7 | 599 | 9.4 | 688 | 10.3 |
| Institutional..... | 377 | 8.0 | 464 | 8.7 | 450 | 7.0 | 528 | 7.9 |
| Other..... | 227 | 4.8 | 265 | 5.0 | 316 | 5.0 | 268 | 4.0 |
| Engineering | 1,809 | 38.3 | 1,933 | 36.4 | 2,600 | 40.7 | 3,094 | 46.2 |
| Marine construction..... | 72 | 1.5 | 76 | 1.4 | 128 | 2.0 | 173 | 2.6 |
| Road, highway and aerodrome construction..... | 473 | 10.0 | 519 | 9.8 | 617 | 9.7 | 667 | 10.0 |
| Waterworks and sewage systems..... | 183 | 3.9 | 149 | 2.8 | 193 | 3.0 | 247 | 3.7 |
| Dams and irrigation..... | 33 | 0.7 | 39 | 0.7 | 59 | 0.9 | 57 | 0.8 |
| Electric power construction..... | 322 | 6.8 | 338 | 6.4 | 461 | 7.2 | 627 | 9.4 |
| Railway, telephone and telegraph construction..... | 295 | 6.3 | 313 | 5.9 | 389 | 6.1 | 390 | 5.8 |
| Gas and oil facilities..... | 270 | 5.7 | 339 | 6.4 | 533 | 8.3 | 669 | 10.0 |
| Other engineering construction..... | 161 | 3.4 | 160 | 3.0 | 220 | 3.5 | 264 | 3.9 |
| Totals, Construction | 4,723 | 100.0 | 5,311 | 100.0 | 6,389 | 100.0 | 6,702 | 100.0 |



Shifts within the program of construction from 1955 to 1956 and from 1956 to 1957 are shown in Table 8.

8.—Dollar Change in Value of Construction Work Performed by Type of Structure
1955 to 1956 and 1956 to 1957

| Type of Structure | Change 1955 to 1956 | Change 1956 to 1957 | Type of Structure | Change 1955 to 1956 | Change 1956 to 1957 |
|--|---------------------------|---------------------------|--|---------------------------|---------------------------|
| | \$'000,000 | \$'000,000 | | \$'000,000 | \$'000,000 |
| Building Construction | | | Road, Highway and Aerodrome | | |
| Residential | 93 | -275 | —concl. | | |
| Dwellings, single, double, du- plexes and apartments..... | 93 | -275 | Dirt, clay or other streets, roads, parking lots, etc..... | -1 | -2 |
| Industrial | 196 | -25 | Grading, scraping, oiling, filling.. | -18 | 0 |
| Factories, plants, workshops.... | 125 | -16 | Sidewalks, paths..... | 1 | 1 |
| Mine and mine mill buildings.... | 57 | -10 | Aerodromes, landing fields, run- ways, tarmac..... | -8 | 26 |
| Railway stations, offices, road- way buildings..... | 9 | -2 | Waterworks and Sewage Systems | 45 | 53 |
| Railway shops, engine houses, water and fuel stations..... | 5 | 2 | Tile drains, drainage ditches, storm sewers..... | -16 | 0 |
| Commercial | 86 | 88 | Water mains, hydrants and serv- ices..... | 16 | 20 |
| Warehouses, storehouses, refrig- erated storage, etc..... | -2 | 14 | Sewage systems and connections. | 37 | 33 |
| Grain elevators..... | 3 | 2 | Pumping stations, water..... | 9 | -3 |
| Hotels, clubs, restaurants, cafe- terias, tourist cabins..... | 22 | 13 | Water storage tanks..... | -2 | 4 |
| Office buildings..... | 64 | 10 | Dams and Irrigation | 20 | -2 |
| Stores, retail and wholesale.... | -25 | 36 | Dams and reservoirs..... | 14 | -5 |
| Garages and service stations.... | 17 | 9 | Irrigation and land reclamation projects..... | 6 | 3 |
| Theatres, arenas, amusement and recreational buildings..... | 8 | 4 | Electric Power | 123 | 166 |
| Laundries and dry cleaning es- tablishments..... | 0 | -1 | Electric power, generating plants, including water conveying and controlling structures..... | 79 | 126 |
| Institutional | -14 | 79 | Electric transformer stations.... | 16 | 11 |
| Schools and other educational buildings..... | 17 | 19 | Power transmission and distri- bution lines, trolley wires..... | 27 | 28 |
| Churches and other religious buildings..... | -2 | 5 | Streetlighting..... | 1 | 1 |
| Hospitals, sanatoria, clinics, first- aid stations, etc..... | -17 | 37 | Railway, Telephone and Tele- graph | 76 | 1 |
| Other institutional buildings..... | -12 | 18 | Railway tracks and roadbed.... | 58 | -12 |
| Other Building Construction | 50 | -48 | Signals and interlockers..... | 4 | 0 |
| Farm buildings (excluding dwell- ings)..... | 15 | 6 | Telegraph and telephone lines, underground and marine cables | 14 | 13 |
| Broadcasting, radio and televi- sion, relay and booster stations, telephone exchanges..... | 58 | -45 | Gas and Oil Facilities | 194 | 137 |
| Aeroplane hangars..... | 2 | 2 | Gas mains and services..... | 20 | 12 |
| Passenger terminals, bus, boat or air..... | 0 | 0 | Pumping stations, oil..... | 0 | 5 |
| Armouries, barracks, drill halls, etc..... | -37 | -3 | Pumping stations, gas..... | 2 | 2 |
| Bunkhouses, dormitories, cook- eries and camps..... | 7 | -7 | Oil storage tanks..... | 4 | 6 |
| Miscellaneous building construc- tion..... | 5 | -2 | Gas storage tanks..... | 1 | 2 |
| Totals, Building Construction | 411 | -181 | Oil pipelines..... | 7 | 2 |
| Engineering Construction | | | Gas pipelines..... | 116 | 100 |
| Marine | 52 | 45 | Oil wells..... | 43 | -19 |
| Docks, wharves, piers, break- waters..... | 13 | 3 | Gas wells..... | 0 | 4 |
| Retaining walls, embankments, riprapping..... | 2 | -2 | Oil-refinery processing units.... | -11 | 8 |
| Canals and waterways..... | -2 | -1 | Natural gas cleaning plants..... | 11 | 15 |
| Dredging and pile driving..... | 9 | 27 | Other Engineering Construction | 60 | 44 |
| Dyke construction..... | 7 | 2 | Bridges, trestles, culverts, over- passes, viaducts..... | 38 | 30 |
| Logging booms..... | 0 | -2 | Tunnels and subways..... | 1 | 4 |
| Other marine construction..... | 22 | 16 | Incinerators..... | -1 | 2 |
| Road, Highway and Aerodrome | 98 | 50 | Park systems, landscaping, sod- ding, etc..... | 0 | 2 |
| Hard surfaced or paved streets, highways, parking lots, etc.... | 90 | 27 | Swimming pools, tennis courts, outdoor recreational facilities.. | 0 | 1 |
| Gravel or stone streets, high- ways, roads, parking lots, etc.. | 33 | -2 | Mineshafts and other below-sur- face workings..... | 17 | 9 |
| | | | Fences, snowsheds, signs, guard- rails..... | 1 | 0 |
| | | | Miscellaneous engineering con- struction..... | 4 | -4 |
| | | | Totals, Engineering Construc- tion | 668 | 494 |
| | | | Totals, Construction | 1,078 | 313 |

Table 9 gives estimates of total expenditures in Canada on each type of construction for which information is available. It contains the detailed data from which Tables 7 and 8 are derived.

9.—Value of Construction Work Performed by Type of Structure 1955-57

NOTE.—Actual 1955; preliminary 1956; intentions 1957.

| Type of Structure | 1955 | | | 1956 | | | 1957 | | |
|--|------------------|----------------|------------------|------------------|----------------|------------------|------------------|----------------|------------------|
| | New | Repair | Total | New | Repair | Total | New | Repair | Total |
| | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Building Construction | | | | | | | | | |
| Residential | 1,499,300 | 238,000 | 1,737,300 | 1,574,900 | 255,500 | 1,830,400 | 1,283,000 | 272,800 | 1,555,800 |
| Dwellings, single, double, duplexes and apartments | 1,499,300 | 238,000 | 1,737,300 | 1,574,900 | 255,500 | 1,830,400 | 1,283,000 | 272,800 | 1,555,800 |
| Industrial | 293,375 | 104,712 | 398,087 | 475,409 | 118,380 | 593,789 | 453,987 | 114,311 | 568,298 |
| Factories, plants, workshops, food canneries.... | 257,837 | 79,289 | 337,126 | 377,463 | 84,554 | 462,017 | 363,130 | 82,904 | 446,034 |
| Mine and mine mill buildings..... | 26,109 | 6,758 | 32,867 | 82,554 | 7,400 | 89,954 | 72,803 | 7,610 | 80,413 |
| Railway stations, offices, roadway buildings..... | 5,082 | 10,718 | 15,800 | 9,261 | 15,229 | 24,490 | 9,261 | 13,099 | 22,360 |
| Railway shops, engine houses, water and fuel stations..... | 4,347 | 7,947 | 12,294 | 6,131 | 11,197 | 17,328 | 8,793 | 10,698 | 19,491 |
| Commercial | 427,232 | 86,259 | 513,491 | 509,973 | 89,297 | 599,270 | 598,797 | 88,810 | 687,607 |
| Warehouses, storehouses, refrigerated storage, etc. | 72,573 | 11,125 | 83,698 | 70,042 | 11,833 | 81,875 | 84,529 | 11,457 | 95,986 |
| Grain elevators..... | 10,147 | 5,607 | 15,754 | 12,376 | 5,977 | 18,353 | 15,609 | 5,366 | 20,975 |
| Hotels, clubs, restaurants, cafeterias, tourist cabins | 22,392 | 10,438 | 32,830 | 43,506 | 11,050 | 54,556 | 54,020 | 13,537 | 67,557 |
| Office buildings..... | 125,529 | 26,268 | 151,797 | 186,434 | 28,996 | 215,430 | 198,122 | 27,536 | 225,658 |
| Stores, retail and wholesale..... | 144,645 | 23,167 | 167,812 | 121,910 | 21,322 | 143,232 | 158,010 | 21,010 | 179,020 |
| Garages and service stations..... | 33,217 | 6,384 | 39,601 | 49,140 | 7,053 | 56,193 | 57,908 | 7,210 | 65,118 |
| Theatres, arenas, amusement and recreational buildings..... | 17,627 | 2,379 | 20,006 | 25,415 | 2,203 | 27,618 | 30,126 | 1,886 | 32,012 |
| Laundries and dry cleaning establishments..... | 1,102 | 891 | 1,993 | 1,150 | 863 | 2,013 | 473 | 808 | 1,281 |
| Institutional | 408,301 | 55,531 | 463,732 | 397,809 | 51,615 | 449,424 | 477,231 | 50,981 | 528,212 |
| Schools and other educational buildings..... | 199,983 | 22,025 | 222,008 | 215,690 | 22,943 | 238,633 | 234,338 | 23,063 | 257,401 |
| Churches and other religious buildings..... | 32,591 | 7,945 | 40,536 | 32,140 | 6,479 | 38,619 | 37,088 | 6,848 | 43,936 |
| Hospitals, sanatoria, clinics, first-aid stations, etc..... | 132,967 | 13,401 | 146,368 | 114,526 | 14,859 | 129,385 | 151,888 | 14,473 | 166,361 |
| Other institutional buildings..... | 42,660 | 12,160 | 54,820 | 35,453 | 7,334 | 42,787 | 53,917 | 6,597 | 60,514 |
| Other Building Construction | 183,185 | 82,010 | 265,195 | 226,516 | 89,078 | 315,594 | 176,160 | 91,598 | 267,758 |
| Farm buildings (excluding dwellings)..... | 80,688 | 57,606 | 138,294 | 89,252 | 64,280 | 153,532 | 93,785 | 66,216 | 160,001 |
| Broadcasting, radio and television, relay and booster stations, telephone exchanges..... | 25,418 | 1,320 | 26,738 | 83,339 | 1,264 | 84,603 | 38,174 | 1,526 | 39,700 |
| Aeroplane hangars..... | 5,093 | 1,770 | 6,863 | 6,952 | 1,842 | 8,794 | 9,341 | 1,950 | 11,291 |
| Passenger terminals, bus, boat or air..... | 1,583 | 86 | 1,669 | 1,033 | 181 | 1,214 | 585 | 359 | 944 |
| Armouries, barracks, drill halls, etc..... | 53,514 | 12,638 | 66,152 | 16,255 | 13,073 | 29,328 | 12,732 | 13,260 | 25,992 |
| Bunkhouses, dormitories, camp cookeries, bush depots and camps..... | 12,192 | 5,173 | 17,365 | 19,971 | 4,766 | 24,737 | 13,445 | 4,645 | 18,090 |
| Other building construction..... | 4,697 | 3,417 | 8,114 | 9,714 | 3,672 | 13,386 | 8,098 | 3,642 | 11,740 |
| Totals, Building Construction | 2,811,293 | 566,512 | 3,377,805 | 3,184,607 | 603,870 | 3,788,477 | 2,989,175 | 618,500 | 3,607,675 |

9.—Value of Construction Work Performed by Type of Structure 1955-57—continued

| Type of Structure | 1955 | | | 1956 | | | 1957 | | |
|---|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | New | Repair | Total | New | Repair | Total | New | Repair | Total |
| | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Engineering Construction | | | | | | | | | |
| Marine..... | 60,945 | 15,277 | 76,222 | 111,493 | 16,454 | 127,947 | 156,221 | 16,810 | 173,031 |
| Docks, wharves, piers, breakwaters..... | 22,116 | 7,445 | 29,561 | 34,588 | 8,031 | 42,619 | 38,225 | 7,778 | 46,003 |
| Retaining walls, embankments, riprapping..... | 2,011 | 542 | 2,553 | 4,139 | 550 | 4,689 | 2,143 | 582 | 2,725 |
| Canals and waterways..... | 3,297 | 1,611 | 4,908 | 2,041 | 1,291 | 3,332 | 1,367 | 1,308 | 2,675 |
| Dredging and pile driving..... | 16,210 | 3,278 | 19,488 | 25,042 | 3,456 | 28,498 | 51,221 | 4,399 | 55,620 |
| Dyke construction..... | 5,411 | 268 | 5,679 | 12,237 | 309 | 12,546 | 14,615 | 324 | 14,939 |
| Logging booms..... | 2,791 | 884 | 3,675 | 2,902 | 1,109 | 4,011 | 1,494 | 1,006 | 2,500 |
| Other marine construction..... | 9,109 | 1,249 | 10,358 | 30,544 | 1,708 | 32,252 | 47,166 | 1,413 | 48,569 |
| Road, Highway and Aerodrome..... | 359,209 | 160,050 | 519,259 | 448,227 | 168,586 | 616,813 | 485,924 | 181,221 | 667,145 |
| Hard surfaced or paved streets, highways, parking lots, etc..... | 168,109 | 69,806 | 237,915 | 245,597 | 82,459 | 328,056 | 260,444 | 94,654 | 355,098 |
| Gravel or stone streets, highways, roads, parking lots, etc..... | 98,578 | 54,430 | 153,008 | 125,911 | 60,440 | 186,351 | 124,502 | 60,223 | 184,725 |
| Dirt, clay or other streets, roads, parking lots, etc..... | 34,763 | 20,755 | 55,518 | 40,050 | 14,966 | 55,016 | 36,686 | 15,843 | 52,529 |
| Grading, scraping, oiling filling..... | 28,607 | 11,287 | 39,894 | 14,159 | 7,496 | 21,655 | 14,437 | 7,081 | 21,518 |
| Sidewalks, paths..... | 13,878 | 3,123 | 17,001 | 15,413 | 2,691 | 18,104 | 16,583 | 2,834 | 19,417 |
| Aerodromes, landing fields, runways, tarmacs..... | 15,274 | 649 | 15,923 | 7,097 | 534 | 7,631 | 33,272 | 586 | 33,858 |
| Waterworks and Sewage Systems..... | 127,214 | 21,434 | 148,648 | 167,668 | 25,908 | 193,576 | 219,483 | 27,310 | 246,823 |
| Tile drains, drainage ditches, storm sewers..... | 24,687 | 2,536 | 27,223 | 7,279 | 3,789 | 11,068 | 7,012 | 4,055 | 11,067 |
| Water mains, hydrants and services..... | 45,333 | 12,521 | 57,854 | 60,005 | 13,876 | 73,881 | 79,146 | 14,633 | 93,779 |
| Sewage systems and connections..... | 49,052 | 5,321 | 54,373 | 84,737 | 7,056 | 91,793 | 117,434 | 7,515 | 124,949 |
| Pumping stations, water..... | 4,768 | 901 | 5,669 | 13,700 | 1,113 | 14,813 | 10,333 | 1,041 | 11,374 |
| Water storage tanks..... | 3,374 | 155 | 3,529 | 1,947 | 74 | 2,021 | 5,558 | 96 | 5,654 |
| Dams and Irrigation..... | 34,293 | 4,656 | 38,949 | 53,328 | 5,678 | 59,006 | 50,818 | 5,718 | 56,536 |
| Dams and reservoirs..... | 23,657 | 2,138 | 25,795 | 37,705 | 2,376 | 40,081 | 32,572 | 2,260 | 34,832 |
| Irrigation and land reclamation projects..... | 10,636 | 2,518 | 13,154 | 15,623 | 3,302 | 18,925 | 18,246 | 3,458 | 21,704 |
| Electric Power..... | 301,183 | 36,852 | 338,035 | 420,121 | 41,090 | 461,211 | 581,720 | 45,422 | 627,142 |
| Electric power generating plants, including water conveying and controlling structures..... | 115,944 | 7,874 | 123,818 | 193,385 | 9,555 | 202,940 | 318,222 | 11,059 | 329,281 |
| Electric transformer stations..... | 29,355 | 4,286 | 33,641 | 45,061 | 4,452 | 49,513 | 55,327 | 4,946 | 60,273 |
| Power transmission and distribution lines, trolley wires..... | 149,254 | 21,660 | 170,914 | 175,625 | 22,648 | 198,273 | 201,334 | 24,971 | 226,305 |
| Street lighting..... | 6,630 | 3,032 | 9,662 | 6,050 | 4,435 | 10,485 | 6,837 | 4,446 | 11,283 |
| Railway, Telephone and Telegraph..... | 143,906 | 168,592 | 312,498 | 202,324 | 186,538 | 388,862 | 228,184 | 161,930 | 390,114 |
| Railway tracks and road-bed..... | 61,199 | 133,419 | 194,618 | 111,326 | 141,759 | 253,085 | 121,187 | 119,863 | 241,050 |
| Signals and interlockers..... | 1,935 | 4,349 | 6,284 | 3,979 | 6,075 | 10,054 | 4,707 | 5,436 | 10,143 |
| Telegraph and telephone lines, underground and marine cables..... | 80,772 | 30,824 | 111,596 | 87,019 | 38,704 | 125,723 | 102,290 | 36,631 | 138,921 |
| Gas and Oil Facilities..... | 311,291 | 27,813 | 339,104 | 504,444 | 28,520 | 532,964 | 639,685 | 29,849 | 669,534 |
| Gas mains and services..... | 12,896 | 1,540 | 14,436 | 32,054 | 2,276 | 34,330 | 43,900 | 1,947 | 45,847 |
| Pumping stations, oil..... | 3,992 | 955 | 4,947 | 3,637 | 1,189 | 4,826 | 8,554 | 1,352 | 9,906 |
| Pumping stations, gas..... | 688 | 67 | 755 | 3,130 | 32 | 3,162 | 5,558 | 57 | 5,615 |
| Oil storage tanks..... | 15,983 | 1,822 | 17,805 | 20,251 | 1,306 | 21,557 | 26,303 | 1,151 | 27,454 |
| Gas storage tanks..... | 1,237 | 390 | 1,627 | 2,451 | 387 | 2,838 | 3,642 | 936 | 4,578 |
| Oil pipelines..... | 21,920 | 1,344 | 23,264 | 29,277 | 1,294 | 30,571 | 30,949 | 1,507 | 32,456 |

9.—Value of Construction Work Performed by Type of Structure 1955-57—concluded

| Type of Structure | 1955 | | | 1956 | | | 1957 | | |
|---|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | New | Repair | Total | New | Repair | Total | New | Repair | Total |
| | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Gas and Oil Facilities—concluded | | | | | | | | | |
| Gas pipelines..... | 25,275 | 1,228 | 26,503 | 141,309 | 899 | 142,208 | 241,225 | 852 | 242,077 |
| Oil wells..... | 143,229 | 2,915 | 146,144 | 185,167 | 3,905 | 189,072 | 165,555 | 4,478 | 170,033 |
| Gas wells..... | 14,376 | 229 | 14,605 | 14,531 | 250 | 14,781 | 18,462 | 292 | 18,754 |
| Oil-refinery processing units..... | 69,350 | 17,134 | 86,484 | 58,954 | 16,794 | 75,748 | 66,877 | 16,839 | 83,716 |
| Natural gas cleaning plants..... | 2,345 | 189 | 2,534 | 13,683 | 188 | 13,871 | 28,660 | 438 | 29,098 |
| Other Engineering Construction..... | 120,360 | 39,749 | 160,109 | 168,107 | 51,869 | 219,976 | 212,161 | 51,911 | 264,072 |
| Bridges, trestles, culverts, overpasses, viaducts.... | 66,128 | 20,439 | 86,567 | 95,887 | 28,656 | 124,543 | 127,778 | 27,079 | 154,857 |
| Tunnels and subways.... | 2,868 | 422 | 3,290 | 3,761 | 528 | 4,289 | 7,305 | 885 | 8,190 |
| Incinerators..... | 383 | 1,281 | 1,664 | 615 | 426 | 1,041 | 2,720 | 378 | 3,098 |
| Park systems, landscaping, sodding, etc..... | 3,176 | 2,866 | 6,042 | 3,327 | 2,916 | 6,243 | 4,637 | 3,152 | 7,789 |
| Swimming pools, tennis courts, outdoor recreation facilities..... | 924 | 699 | 1,623 | 1,026 | 731 | 1,757 | 1,572 | 738 | 2,310 |
| Mine shafts and other below-surface workings. | 22,814 | 2,071 | 24,885 | 39,453 | 2,361 | 41,814 | 48,377 | 2,926 | 51,303 |
| Fences, snowsheds, signs, guard rails..... | 7,565 | 10,187 | 17,752 | 7,320 | 11,067 | 18,387 | 7,408 | 10,918 | 18,326 |
| Other engineering construction..... | 16,502 | 1,784 | 18,286 | 16,718 | 5,184 | 21,902 | 12,364 | 5,835 | 18,199 |
| Totals, Engineering Construction..... | 1,458,401 | 474,423 | 1,932,824 | 2,075,712 | 521,643 | 2,600,355 | 2,574,196 | 520,201 | 3,094,397 |
| Grand Totals, Construction.... | 4,269,694 | 1,040,935 | 5,310,629 | 5,260,319 | 1,128,513 | 6,388,832 | 5,563,371 | 1,138,701 | 6,702,072 |

Principal statistics of the construction industry are shown by province and for contractors, utilities, governments and others in Table 10. The statistics given for Canada as a whole may be considered as relatively accurate but those for individual provinces and by class of builder are approximations only. All estimates given for cost of materials used are based on ratios of this item to total value of work performed, derived from annual surveys of construction work and applied to the total value-of-work figures. Estimates of labour content are similarly based but in addition are adjusted to include working owners and partners and their withdrawals. Although the ratios were calculated in some detail by type of industry, still further refinements are required. There are also some difficulties in obtaining the precise location of projects undertaken or to be undertaken by large companies operating in a number of provinces. However, if used with these qualifications in mind, the table provides useful estimates.

10.—Labour Content, Cost of Materials and Value of Work Performed in Construction, by Province and by Employer 1953-57

NOTE.—Actual 1953-55; preliminary 1956; intentions 1957.

| Province and Year | | Labour Content | | Cost of Materials Used | Value of Work Performed |
|-------------------|------|----------------|--------|------------------------|-------------------------|
| | | Number | Value | | |
| Province | | | \$'000 | \$'000 | \$'000 |
| Newfoundland..... | 1953 | 9,014 | 27,799 | 30,298 | 68,118 |
| | 1954 | 9,778 | 26,639 | 30,702 | 67,372 |
| | 1955 | 10,045 | 28,393 | 35,796 | 77,659 |
| | 1956 | 10,374 | 30,136 | 36,122 | 80,830 |
| | 1957 | 11,689 | 34,638 | 44,226 | 94,267 |

10.—Labour Content, Cost of Materials and Value of Work Performed in Construction, by Province and by Employer 1953-57—continued

| Province and Year | Labour Content | | Cost of Materials Used | Value of Work Performed |
|---------------------------|----------------|----------------|------------------------|-------------------------|
| | Number | Value | | |
| | | \$'000 | \$'000 | \$'000 |
| Province—concluded | | | | |
| Prince Edward Island..... | 1953 | 2,022 | 4,264 | 7,398 |
| | 1954 | 2,245 | 4,921 | 5,900 |
| | 1955 | 2,418 | 5,359 | 7,249 |
| | 1956 | 2,281 | 5,322 | 7,150 |
| | 1957 | 2,244 | 5,102 | 6,950 |
| | | | | 16,698 |
| Nova Scotia..... | 1953 | 20,031 | 51,490 | 68,550 |
| | 1954 | 19,049 | 49,791 | 62,510 |
| | 1955 | 17,993 | 48,278 | 70,308 |
| | 1956 | 17,954 | 50,150 | 73,513 |
| | 1957 | 17,683 | 49,116 | 70,993 |
| | | | | 141,184 |
| | | | | 136,018 |
| | | | | 142,228 |
| | | | | 147,765 |
| | | | | 143,087 |
| New Brunswick..... | 1953 | 15,439 | 37,480 | 52,775 |
| | 1954 | 14,897 | 38,476 | 59,795 |
| | 1955 | 19,539 | 52,249 | 73,463 |
| | 1956 | 20,281 | 56,439 | 79,986 |
| | 1957 | 19,151 | 53,134 | 76,200 |
| | | | | 105,227 |
| | | | | 110,975 |
| | | | | 154,029 |
| | | | | 167,162 |
| | | | | 159,535 |
| Quebec..... | 1953 | 135,104 | 404,631 | 537,622 |
| | 1954 | 135,102 | 415,441 | 559,341 |
| | 1955 | 132,566 | 419,834 | 652,895 |
| | 1956 | 146,714 | 488,882 | 763,125 |
| | 1957 | 150,814 | 501,958 | 784,252 |
| | | | | 1,124,040 |
| | | | | 1,160,447 |
| | | | | 1,306,593 |
| | | | | 1,530,279 |
| | | | | 1,570,843 |
| Ontario..... | 1953 | 173,932 | 569,627 | 744,621 |
| | 1954 | 183,134 | 611,897 | 792,362 |
| | 1955 | 187,914 | 650,722 | 898,727 |
| | 1956 | 209,030 | 759,958 | 1,055,248 |
| | 1957 | 226,793 | 825,813 | 1,155,520 |
| | | | | 1,597,331 |
| | | | | 1,699,764 |
| | | | | 1,869,335 |
| | | | | 2,194,020 |
| | | | | 2,398,677 |
| Manitoba..... | 1953 | 29,327 | 81,279 | 122,620 |
| | 1954 | 27,381 | 83,796 | 116,945 |
| | 1955 | 29,275 | 90,679 | 123,789 |
| | 1956 | 33,823 | 109,380 | 152,222 |
| | 1957 | 37,839 | 123,540 | 176,814 |
| | | | | 245,760 |
| | | | | 240,977 |
| | | | | 257,433 |
| | | | | 310,905 |
| | | | | 359,307 |
| Saskatchewan..... | 1953 | 25,476 | 77,455 | 114,996 |
| | 1954 | 30,656 | 100,784 | 125,626 |
| | 1955 | 27,556 | 91,677 | 131,271 |
| | 1956 | 34,353 | 118,605 | 168,025 |
| | 1957 | 33,778 | 116,117 | 164,722 |
| | | | | 235,195 |
| | | | | 291,521 |
| | | | | 280,415 |
| | | | | 363,086 |
| | | | | 353,758 |
| Alberta..... | 1953 | 50,570 | 179,335 | 264,628 |
| | 1954 | 50,934 | 172,931 | 247,360 |
| | 1955 | 52,641 | 187,267 | 284,492 |
| | 1956 | 59,039 | 226,063 | 339,497 |
| | 1957 | 56,005 | 214,072 | 321,471 |
| | | | | 556,008 |
| | | | | 550,258 |
| | | | | 623,605 |
| | | | | 747,716 |
| | | | | 707,837 |
| British Columbia..... | 1953 | 54,145 | 218,030 | 242,105 |
| | 1954 | 45,010 | 175,456 | 194,269 |
| | 1955 | 54,071 | 212,861 | 262,924 |
| | 1956 | 71,873 | 299,882 | 375,974 |
| | 1957 | 77,855 | 324,731 | 407,088 |
| | | | | 552,560 |
| | | | | 450,446 |
| | | | | 582,153 |
| | | | | 829,897 |
| | | | | 898,063 |
| Totals..... | 1953 | 515,060 | 1,651,390 | 2,185,613 |
| | 1954 | 518,186 | 1,680,132 | 2,194,810 |
| | 1955 | 534,018 | 1,787,319 | 2,540,914 |
| | 1956 | 605,722 | 2,144,817 | 3,050,862 |
| | 1957 | 633,851 | 2,248,221 | 3,208,236 |
| | | | | 4,639,645 |
| | | | | 4,723,367 |
| | | | | 5,310,629 |
| | | | | 6,388,832 |
| | | | | 6,702,072 |

10.—Labour Content, Cost of Materials and Value of Work Performed in Construction, by Province and by Employer 1953-57—concluded

| Employer and Year | | Labour Content | | Cost of Materials Used | Value of Work Performed |
|-------------------|------|----------------|-----------|------------------------|-------------------------|
| | | Number | Value | | |
| Employer | | | \$'000 | \$'000 | \$'000 |
| Contractors..... | 1953 | 322,889 | 1,110,446 | 1,588,109 | 3,358,410 |
| | 1954 | 321,525 | 1,101,370 | 1,599,498 | 3,381,630 |
| | 1955 | 343,322 | 1,213,022 | 1,867,575 | 3,875,878 |
| | 1956 | 409,287 | 1,522,051 | 2,331,803 | 4,849,493 |
| | 1957 | 434,514 | 1,616,976 | 2,476,498 | 5,140,743 |
| Utilities..... | 1953 | 79,870 | 233,692 | 263,128 | 540,341 |
| | 1954 | 77,137 | 243,910 | 244,013 | 537,576 |
| | 1955 | 75,707 | 239,877 | 305,097 | 602,942 |
| | 1956 | 86,266 | 285,461 | 354,318 | 708,853 |
| | 1957 | 87,118 | 288,120 | 367,533 | 725,591 |
| Governments..... | 1953 | 56,640 | 148,278 | 131,529 | 318,278 |
| | 1954 | 68,724 | 179,767 | 141,983 | 383,558 |
| | 1955 | 61,176 | 167,492 | 131,285 | 361,725 |
| | 1956 | 59,590 | 173,820 | 135,471 | 370,658 |
| | 1957 | 63,036 | 184,611 | 143,424 | 392,130 |
| Others..... | 1953 | 55,661 | 158,974 | 202,847 | 422,616 |
| | 1954 | 50,800 | 155,085 | 209,316 | 420,603 |
| | 1955 | 53,813 | 166,928 | 236,957 | 470,084 |
| | 1956 | 50,579 | 163,485 | 229,270 | 459,828 |
| | 1957 | 49,183 | 158,514 | 220,781 | 443,608 |

Subsection 2.—Contracts Awarded and Building Permits Issued

In this Subsection statistics are given of work actually in sight either as contracts awarded or as building permits. These figures are related to those of work performed during the year only so far as the work thus provided for is completed and duly reported in the capital expenditure surveys. Further, values of contracts awarded, and especially of building permits, are estimates (more often under-estimates) of work to be done.

Contracts Awarded.—According to figures published by *Hugh C. MacLean Building Reports*, the Canadian construction industry registered new gains in 1956. Total construction contract awards reached \$3,426,905,500 by the year-end, an increase of 7.6 p.c. over 1955. This gain, however, was not as great as was indicated even as late as mid-summer. Contract volume lagged during the last four months of the year as a result of the deflationary measures imposed by the Federal Government on financial institutions.

During 1956, engineering construction led with a gain of 30.0 p.c. and contributed 31.1 p.c. of the total awards, almost equalling the proportion contributed by residential construction. Industrial work gained 17.9 p.c. and commercial and institutional construction 8.9 p.c. Residential construction was lower by 11.4 p.c. The regional spread of new work was somewhat uneven in 1956. Solid gains were shown in Ontario and Quebec but specific declines in Nova Scotia and New Brunswick brought the Maritime total down from 1955. Also a sharp drop in British Columbia more than counterbalanced gains in the three Prairie Provinces.

11.—Value of Construction Contracts Awarded 1921-56

(SOURCE: *Hugh C. MacLean Building Reports*)

| Year | Value of Construction Contracts | Year | Value of Construction Contracts | Year | Value of Construction Contracts |
|-----------|---------------------------------|-----------|---------------------------------|-----------|---------------------------------|
| | \$ | | \$ | | \$ |
| 1921..... | 240,133,300 | 1933..... | 97,289,800 | 1945..... | 409,032,700 |
| 1922..... | 331,843,800 | 1934..... | 125,811,500 | 1946..... | 663,355,100 |
| 1923..... | 314,254,300 | 1935..... | 160,305,000 | 1947..... | 718,137,100 |
| 1924..... | 276,261,100 | 1936..... | 162,588,000 | 1948..... | 954,082,400 |
| 1925..... | 297,973,000 | 1937..... | 224,056,700 | 1949..... | 1,143,547,300 |
| 1926..... | 372,947,900 | 1938..... | 187,277,900 | 1950..... | 1,525,764,700 |
| 1927..... | 418,951,600 | 1939..... | 346,009,800 | 1951..... | 2,295,499,200 |
| 1928..... | 472,032,600 | 1940..... | 393,991,300 | 1952..... | 1,812,177,600 |
| 1929..... | 576,651,800 | 1941..... | 281,594,100 | 1953..... | 2,017,060,700 |
| 1930..... | 456,999,600 | 1942..... | 206,103,900 | 1954..... | 2,154,959,200 |
| 1931..... | 315,482,000 | 1943..... | 291,961,800 | 1955..... | 3,183,592,000 |
| 1932..... | 132,872,400 | 1944..... | | 1956..... | 3,426,905,500 |

¹ Newfoundland included from Apr. 1, 1949.

12.—Value of Construction Contracts Awarded by Province and Type of Construction 1952-56

(SOURCE: *Hugh C. MacLean Building Reports*)

| Province and Type of Construction | 1952 | 1953 | 1954 | 1955 | 1956 |
|-----------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| | \$ | \$ | \$ | \$ | \$ |
| Newfoundland..... | 21,985,300 | 8,549,700 | 12,253,700 | 39,140,200 | 41,326,300 |
| Prince Edward Island..... | 3,489,000 | 1,254,300 | 3,899,500 | 3,157,600 | 5,482,600 |
| Nova Scotia..... | 78,502,000 | 54,355,800 | 71,841,400 | 55,259,600 | 51,178,300 |
| New Brunswick..... | 25,177,000 | 28,602,000 | 46,225,300 | 100,127,200 | 62,761,900 |
| Quebec..... | 397,931,400 | 539,818,600 | 538,079,200 | 778,843,900 | 988,138,800 |
| Ontario..... | 732,768,100 | 849,812,400 | 939,746,400 | 1,300,287,700 | 1,427,821,300 |
| Manitoba..... | 95,690,300 | 80,455,700 | 119,828,600 | 97,164,600 | 111,526,100 |
| Saskatchewan..... | 59,170,000 | 75,724,400 | 76,375,200 | 63,027,200 | 100,791,700 |
| Alberta..... | 231,191,300 | 215,010,900 | 219,205,000 | 230,309,700 | 275,613,000 |
| British Columbia..... | 166,273,200 | 163,476,900 | 127,504,900 | 516,264,300 | 362,265,500 |
| Totals..... | 1,812,177,600 | 2,017,060,700 | 2,154,959,200 | 3,183,592,000 | 3,426,905,500 |
| Residential..... | 511,302,700 | 732,759,300 | 900,016,800 | 1,216,425,100 | 1,077,408,600 |
| Apartments..... | 101,065,300 | 130,462,400 | 151,316,400 | 179,720,400 | 160,885,200 |
| Residences..... | 409,637,400 | 602,296,900 | 748,700,400 | 1,036,704,700 | 916,523,400 |
| Business..... | 526,394,900 | 613,809,700 | 694,972,400 | 761,162,800 | 828,877,800 |
| Churches..... | 26,455,700 | 32,009,200 | 44,540,900 | 37,759,300 | 40,584,600 |
| Public garages..... | 15,958,100 | 17,298,400 | 20,798,400 | 25,748,900 | 24,983,100 |
| Hospitals..... | 56,175,300 | 69,047,600 | 62,883,500 | 77,604,400 | 63,320,000 |
| Hotels and clubs..... | 23,055,600 | 32,399,800 | 39,171,000 | 93,955,400 | 66,664,200 |
| Office buildings..... | 39,640,300 | 78,035,900 | 81,715,500 | 99,842,900 | 132,488,900 |
| Public buildings..... | 149,351,000 | 111,235,600 | 120,018,500 | 102,191,400 | 108,245,900 |
| Schools..... | 130,398,800 | 119,009,200 | 169,059,600 | 174,686,800 | 205,232,200 |
| Stores..... | 41,999,300 | 81,197,300 | 76,592,300 | 93,939,200 | 92,316,600 |
| Theatres..... | 3,116,900 | 3,075,300 | 3,069,400 | 2,221,800 | 1,617,000 |
| Warehouses..... | 40,243,900 | 70,501,400 | 77,123,300 | 53,212,700 | 93,425,000 |
| Industrial..... | 245,851,100 | 230,925,800 | 169,650,100 | 386,410,300 | 455,579,200 |
| Engineering..... | 523,628,900 | 439,565,900 | 390,319,900 | 819,593,800 | 1,065,639,900 |
| Bridges..... | 37,569,700 | 14,858,700 | 21,219,300 | 47,147,300 | 73,366,500 |
| Marine construction..... | 59,257,500 | 63,592,100 | 30,649,100 | 106,319,200 | 148,134,800 |
| Sewerage and waterworks..... | 44,919,300 | 46,385,500 | 59,394,600 | 70,341,900 | 113,732,900 |
| Roads and streets..... | 113,015,000 | 97,964,200 | 113,919,500 | 176,164,600 | 299,318,200 |
| Power and communications..... | 102,856,400 | 181,420,400 | 41,015,800 | 149,096,000 | 315,651,500 |
| Miscellaneous engineering..... | 171,011,000 | 35,345,000 | 124,121,600 | 269,924,800 | 114,836,000 |

Building Permits.—The estimated value of proposed construction as indicated by building permits issued in 204 municipalities in 1956 amounted to \$1,318,927,000 as compared with \$1,310,124,000 in 1955 and \$1,151,087,000 in 1954.

13.—Estimated Value of Proposed Construction as Indicated by Building Permits Issued in 204 Municipalities 1955 and 1956

| Province and Municipality | 1955 | 1956 | Province and Municipality | 1955 | 1956 |
|------------------------------|---------|---------|--------------------------------|--------------------|--------|
| | \$'000 | \$'000 | | \$'000 | \$'000 |
| Prince Edward Island— | | | Quebec—concluded | | |
| Charlottetown..... | 3,819 | 1,157 | St. Joseph d'Alma..... | 1,109 | 2,775 |
| Nova Scotia— | | | St. Lambert..... | 2,889 | 2,170 |
| Amherst..... | 387 | 434 | St. Laurent..... | 11,810 | 15,709 |
| Bridgewater..... | 326 | 326 | Shawinigan Falls..... | 1,344 | 3,191 |
| Dartmouth..... | 4,289 | 3,232 | Sherbrooke..... | 6,755 | 5,803 |
| Glace Bay..... | 184 | 130 | Sorel..... | 802 | 676 |
| Halifax..... | 7,591 | 11,694 | Three Rivers..... | 4,578 | 6,163 |
| Liverpool..... | 939 | 233 | Val d'Or..... | 395 | 438 |
| New Glasgow..... | | | Valleyfield..... | 2,950 | 4,384 |
| New Waterford..... | 12 | 170 | Verdun..... | 3,221 | 2,630 |
| North Sydney..... | 99 | 289 | Westmount..... | 4,289 | 2,318 |
| Sydney..... | 3,138 | 980 | | | |
| Sydney Mines..... | 55 | 76 | Ontario— | | |
| Truro..... | 1,048 | 1,310 | Amherstburg..... | 1,478 | 623 |
| Yarmouth..... | 172 | 172 | Barrie..... | 3,774 | 4,948 |
| New Brunswick— | | | Belleville..... | 2,095 | 1,336 |
| Campbellton..... | 2,668 | 1,057 | Bowmanville..... | 710 | 917 |
| Chatham..... | 86 | 1,488 | Bracebridge..... | 122 | 379 |
| Dalhousie..... | 257 | 269 | Brampton..... | 4,335 | 3,008 |
| Fredericton..... | 2,999 | 4,230 | Brantford..... | 6,100 | 4,567 |
| Moncton..... | 5,187 | 6,871 | Brockville..... | 3,397 | 2,178 |
| Newcastle..... | 905 | 702 | Burlington..... | 2,097 | 2,186 |
| Saint John..... | 7,192 | 4,018 | Campbellford..... | 78 | 140 |
| St. Stephen..... | 36 | 484 | Chatham..... | 4,658 | 2,809 |
| Quebec— | | | Cobourg..... | 2,002 | 1,555 |
| Cap de la Madeleine..... | 2,298 | 3,782 | Cochrane..... | 177 | 271 |
| Chicoutimi..... | 6,927 | 4,095 | Collingwood..... | 409 | 495 |
| Coaticook..... | 198 | 167 | Cornwall..... | 2,244 | 1,775 |
| Drummondville..... | 698 | 2,319 | Dundas..... | 2,392 | 1,482 |
| Granby..... | 4,424 | 2,752 | Eastview..... | 2,794 | 3,889 |
| Grand Mère..... | 1,289 | 3,043 | Etobicoke Twp..... | 56,715 | 68,621 |
| Hampstead..... | 396 | 596 | Forest Hill..... | 1,447 | 2,038 |
| Hull..... | 6,852 | 5,016 | Fort Erie..... | 772 | 769 |
| Iberville..... | 561 | 801 | Fort Frances..... | 1,342 | 925 |
| Joliette..... | 2,695 | 1,675 | Fort William..... | 5,399 | 12,130 |
| Jonquière..... | 2,324 | 3,443 | Galt..... | 3,163 | 3,361 |
| Lachine..... | 7,295 | 10,126 | Gananoque..... | 301 | 712 |
| Laprairie..... | 813 | 696 | Gloucester Twp..... | 5,347 | 3,570 |
| La Tuque..... | 640 | 2,302 | Goderich..... | 176 | 695 |
| Lévis..... | 1,532 | 1,113 | Guelph..... | 6,246 | 5,547 |
| Longueuil..... | 1,477 | 2,022 | Haileybury..... | 133 | 206 |
| Megantic..... | 426 | 317 | Hamilton..... | 32,892 | 35,675 |
| Montreal (Maisonneuve)..... | 164,111 | 161,218 | Hanover..... | 91 | 163 |
| Montreal East..... | 3,640 | 7,034 | Hawkesbury..... | 1,133 | 360 |
| Montreal North..... | 7,925 | 9,117 | Huntsville..... | 216 | 115 |
| Montreal West..... | 1,576 | 1,448 | Ingersoll..... | 365 | 835 |
| Mount Royal..... | 6,671 | 6,548 | Kapuskasing..... | 1,085 | 721 |
| Noranda..... | 320 | 872 | Kenora..... | 1,486 | 1,132 |
| Outremont..... | 1,442 | 1,012 | Kingston..... | 9,487 | 7,856 |
| Pointe-aux-Trembles..... | 4,624 | 2,611 | Kirkland Lake (Teck Twp.)..... | 429 | 269 |
| Pointe Claire..... | 4,973 | 7,247 | Kitchener..... | 11,007 | 14,639 |
| Quebec..... | 14,312 | 8,656 | Leamington..... | 631 | 971 |
| Rimouski..... | 1,697 | 2,460 | Leaside..... | 637 | 2,100 |
| Rivière-du-Loup..... | 560 | 526 | Lindsay..... | 346 | 705 |
| Rouyn..... | 861 | 911 | Listowel..... | 114 | 247 |
| Ste. Agathe-des-Monts..... | 168 | 321 | London..... | 8,486 | 8,487 |
| Ste. Anne-de-Bellevue..... | 143 | 561 | Long Branch..... | 2,302 | 2,151 |
| St. Hyacinthe..... | 2,812 | 2,676 | Napanee..... | 270 | 256 |
| St. Jean..... | 7,573 | 5,525 | Nepean Twp..... | 4,583 | 4,814 |
| St. Jérôme..... | 1,359 | 2,789 | New Liskeard..... | 476 | 759 |
| | | | Newmarket..... | 2,364 ¹ | 1,326 |
| | | | New Toronto..... | 953 | 1,757 |
| | | | Niagara Falls..... | 1,436 | 3,389 |

¹ July to December only.

13.—Estimated Value of Proposed Construction as Indicated by Building Permits Issued in 204 Municipalities 1955 and 1956—Concluded

| Province and Municipality | 1955 | 1956 | Province and Municipality | 1955 | 1956 |
|---------------------------|--------|--------|-----------------------------------|------------------|------------------|
| | \$'000 | \$'000 | | \$'000 | \$'000 |
| Ontario—concluded | | | Manitoba—concluded | | |
| North Bay..... | 5,090 | 4,051 | North Kildonan..... | 778 | 650 |
| North York Twp..... | 78,937 | 78,276 | Portage la Prairie..... | 2,112 | 713 |
| Oakville..... | 3,276 | 1,315 | St. Boniface..... | 5,983 | 9,914 |
| Orillia..... | 1,914 | 1,119 | Selkirk..... | 337 | 1,040 |
| Oshawa..... | 13,252 | 10,192 | The Pas..... | 215 | 267 |
| Ottawa..... | 57,096 | 57,514 | Transcona..... | 2,003 | 2,998 |
| Owen Sound..... | 822 | 2,615 | Winnipeg..... | 42,364 | 29,499 |
| Paris..... | 342 | 227 | | | |
| Parry Sound..... | 409 | 574 | Saskatchewan— | | |
| Pembroke..... | 1,439 | 2,276 | Biggar..... | | 153 |
| Perth..... | 270 | 241 | Estevan..... | 776 | 2,439 |
| Peterborough..... | 6,434 | 5,418 | Melville..... | 338 | 123 |
| Petrolia..... | 153 | 467 | Moose Jaw..... | 2,977 | 3,247 |
| Port Arthur..... | 5,840 | 5,090 | North Battleford..... | 1,537 | 1,455 |
| Port Colborne..... | 1,937 | 1,709 | Prince Albert..... | 3,702 | 3,061 |
| Preston..... | 2,319 | 2,162 | Regina..... | 24,358 | 18,368 |
| Renfrew..... | 633 | 1,389 | Saskatoon..... | 17,617 | 16,605 |
| Riverside..... | 2,756 | 4,296 | Swift Current..... | 1,420 | 2,141 |
| St. Catharines..... | 6,548 | 4,507 | Weyburn..... | 728 | 984 |
| St. Mary's..... | 512 | 116 | Yorkton..... | 887 | 1,617 |
| St. Thomas..... | 1,323 | 1,847 | | | |
| Sarnia..... | 7,347 | 7,603 | Alberta— | | |
| Sault Ste. Marie..... | 4,212 | 9,049 | Calgary..... | 58,897 | 58,960 |
| Scarboro Twp..... | 84,829 | 60,234 | Drunnheller..... | 238 | 175 |
| Simcoe..... | 700 | 1,457 | Edmonton..... | 58,719 | 69,404 |
| Smith's Falls..... | 497 | 192 | Lethbridge..... | 6,356 | 7,001 |
| Stratford..... | 2,085 | 2,143 | Medicine Hat..... | 22,267 | 4,473 |
| Sudbury..... | 3,932 | 6,470 | | | |
| Swansea..... | 723 | 2,323 | British Columbia— | | |
| Tillsonburg..... | 436 | 814 | Chilliwack..... | 1,294 | 1,056 |
| Timmins..... | 1,017 | 798 | Cranbrook..... | 625 | 471 |
| Toronto..... | 75,982 | 87,473 | Fernie..... | 18 | 49 |
| Trenton..... | 1,950 | 1,442 | Kamloops..... | 1,140 | 2,591 |
| Wallaceburg..... | 452 | 720 | Kelowna..... | 1,676 | 2,222 |
| Waterloo..... | 4,948 | 4,672 | Nanaimo..... | 3,076 | 3,097 |
| Welland..... | 1,807 | 2,250 | Nelson..... | 464 | 794 |
| Weston..... | 1,063 | 1,326 | New Westminster..... | 4,336 | 3,466 |
| Whitby..... | 3,893 | 1,814 | North Vancouver..... | 3,984 | 3,570 |
| Windsor..... | 10,553 | 11,862 | Prince George..... | 2,842 | 4,996 |
| Woodstock..... | 3,368 | 3,271 | Prince Rupert..... | 1,006 | 718 |
| York Twp..... | 12,224 | 15,040 | Revelstoke..... | 176 | 268 |
| York East Twp..... | 3,861 | 3,511 | Rossland..... | 156 | 119 |
| | | | Trail..... | 1,205 | 634 |
| Manitoba— | | | Vancouver..... | 55,446 | 64,685 |
| Brandon..... | 3,651 | 3,882 | Vernon..... | 1,035 | 2,442 |
| Brooklands..... | 273 | 257 | Victoria..... | 7,181 | 6,672 |
| Dauphin..... | 915 | 551 | | | |
| | | | Totals, 204 Municipalities | 1,310,124 | 1,318,927 |

Table 14 shows the value of building permits issued in fourteen metropolitan areas across Canada. In 1956 the permits issued in these areas made up 91 p.c. of the total for the 204 municipalities.

14.—Estimated Value of Building Permits Issued in Metropolitan Areas 1955 and 1956

| Metropolitan Area | 1955 | 1956 | Metropolitan Area | 1955 | 1956 |
|-------------------|---------|---------|-------------------|---------|---------|
| | \$'000 | \$'000 | | \$'000 | \$'000 |
| Halifax..... | 11,880 | 14,920 | Windsor..... | 28,209 | 28,504 |
| Saint John..... | 7,194 | 4,045 | London..... | 22,318 | 21,768 |
| Quebec..... | 26,685 | 26,253 | Winnipeg..... | 89,176 | 64,074 |
| Montreal..... | 267,616 | 268,902 | Calgary..... | 60,371 | 64,077 |
| Ottawa-Hull..... | 79,442 | 79,333 | Edmonton..... | 64,438 | 61,673 |
| Toronto..... | 319,674 | 326,875 | Vancouver..... | 144,351 | 138,183 |
| Hamilton..... | 60,554 | 61,655 | Victoria..... | 17,751 | 15,999 |

Tables 15 and 16 show the value and volume of building permits by province for 900 municipalities covering areas in which live about 62 p.c. of the national population and 87 p.c. of the urban population. These figures are useful when appraising the construction activity within, and among, municipalities. Comparisons of construction costs would not be warranted, however, without assurance that structures of similar size and quality were being compared. Despite limited application, this information constitutes one of the few indices of current economic activity in smaller localities.

The relative material was compiled from municipal figures and therefore varies with the terms of individual by-laws, with the methods of estimating the value of local construction and with other factors which may differ from area to area. Information is not available on the permits allowed to lapse without the relative construction being undertaken.

15.—Number of Dwelling Units Covered by Building Permits, by Province 1952-56

| Province and Year | Apart-ments | Other | Total | Province and Year | Apart-ments | Other | Total |
|---------------------------|-------------|--------|--------|------------------------------------|---------------|---------------|----------------|
| Newfoundland.....1952 | 181 | 619 | 800 | Manitoba.....1952 | 616 | 3,962 | 4,578 |
| 1953 | 27 | 546 | 573 | 1953 | 685 | 4,585 | 5,270 |
| 1954 | 59 | 486 | 545 | 1954 | 883 | 4,187 | 5,070 |
| 1955 | 12 | 556 | 568 | 1955 | 1,150 | 4,516 | 5,666 |
| 1956 | 71 | 479 | 550 | 1956 | 415 | 3,584 | 3,999 |
| Prince Edward Island.1952 | 3 | 34 | 37 | Saskatchewan.....1952 | 117 | 2,624 | 2,741 |
| 1953 | 13 | 40 | 53 | 1953 | 266 | 3,753 | 4,019 |
| 1954 | 9 | 54 | 63 | 1954 | 248 | 2,912 | 3,160 |
| 1955 | 14 | 57 | 71 | 1955 | 462 | 3,143 | 3,605 |
| 1956 | 9 | 42 | 51 | 1956 | 327 | 2,691 | 3,018 |
| Nova Scotia.....1952 | 256 | 716 | 972 | Alberta.....1952 | 546 | 6,801 | 7,347 |
| 1953 | 943 | 849 | 1,792 | 1953 | 1,983 | 8,139 | 10,122 |
| 1954 | 195 | 834 | 1,029 | 1954 | 1,353 | 6,813 | 8,166 |
| 1955 | 393 | 777 | 1,170 | 1955 | 738 | 8,921 | 9,659 |
| 1956 | 337 | 791 | 1,128 | 1956 | 641 | 8,726 | 9,367 |
| New Brunswick.....1952 | 92 | 326 | 418 | British Columbia.....1952 | 1,156 | 8,063 | 9,219 |
| 1953 | 123 | 651 | 774 | 1953 | 2,124 | 9,899 | 12,023 |
| 1954 | 120 | 508 | 628 | 1954 | 1,855 | 11,173 | 13,028 |
| 1955 | 164 | 635 | 799 | 1955 | 3,134 | 12,753 | 15,887 |
| 1956 | 137 | 824 | 961 | 1956 | 2,897 | 11,410 | 14,307 |
| Quebec.....1952 | 7,036 | 13,818 | 20,854 | | | | |
| 1953 | 7,392 | 19,142 | 26,534 | | | | |
| 1954 | 7,053 | 18,070 | 25,123 | | | | |
| 1955 | 11,083 | 19,049 | 30,132 | | | | |
| 1956 | 8,028 | 18,370 | 26,398 | | | | |
| | | | | Canada¹.....1952 | 15,294 | 67,054 | 82,348 |
| Ontario.....1952 | 5,298 | 29,738 | 35,036 | 1953 | 22,554 | 82,394 | 104,948 |
| 1953 | 9,092 | 34,836 | 43,928 | 1954 | 24,229 | 81,401 | 105,630 |
| 1954 | 12,592 | 36,221 | 48,813 | 1955 | 25,376 | 93,685 | 119,061 |
| 1955 | 8,355 | 43,491 | 51,846 | 1956 | 23,573 | 80,058 | 103,631 |
| 1956 | 10,711 | 33,157 | 43,868 | | | | |

¹ Provincial totals do not add to the Canada totals because certain minor adjustments could not be distributed provincially.

16.—Value of Building Permits Issued by Province 1952-56

| Province and Year | Residential Construction | | | Non-residential Construction | | | | Total |
|-------------------------------|--------------------------|--------|-----------|------------------------------|-----------------|---|--------|-----------|
| | New | Repair | Total | Industrial | Com- mercial | Institu- tional and Govern- ment | Other | |
| | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Newfoundland.....1952 | 5,518 | 572 | 6,090 | 307 | 670 | 1,446 | 7 | 8,520 |
| 1953 | 3,736 | 676 | 4,412 | 1,017 | 737 | 662 | 3 | 6,831 |
| 1954 | 4,141 | 648 | 4,789 | 1,256 | 1,389 | 449 | 4 | 7,887 |
| 1955 | 4,565 | 743 | 5,308 | 483 | 1,965 | 1,077 | 19 | 8,852 |
| 1956 | 4,490 | 742 | 5,232 | 446 | 1,307 | 1,961 | 28 | 8,974 |
| Prince Edward Island 1952 | 285 | 25 | 310 | 75 | 144 | 15 | 1 | 545 |
| 1953 | 286 | 58 | 344 | 92 | 91 | 75 | — | 602 |
| 1954 | 409 | 39 | 448 | 73 | 672 | 508 | — | 1,701 |
| 1955 | 520 | 61 | 581 | 240 | 775 | 2,584 | — | 4,180 |
| 1956 | 398 | 51 | 449 | 25 | 149 | 725 | — | 1,348 |
| Nova Scotia.....1952 | 6,222 | 1,409 | 7,631 | 404 | 3,181 | 3,647 | 95 | 14,958 |
| 1953 | 9,666 | 1,656 | 11,322 | 3,906 | 3,466 | 4,830 | 13 | 23,537 |
| 1954 | 6,760 | 1,424 | 8,184 | 1,617 | 5,180 | 3,330 | 46 | 18,357 |
| 1955 | 8,142 | 1,494 | 9,636 | 1,398 | 3,358 | 5,325 | 40 | 19,757 |
| 1956 | 8,166 | 1,730 | 9,896 | 2,574 | 6,490 | 3,911 | 37 | 22,908 |
| New Brunswick.....1952 | 2,477 | 1,296 | 3,773 | 490 | 3,851 | 3,295 | 4 | 11,413 |
| 1953 | 5,681 | 1,257 | 6,938 | 1,914 | 3,058 | 5,059 | 1 | 16,970 |
| 1954 | 4,237 | 1,056 | 5,293 | 1,339 | 2,148 | 6,715 | 16 | 15,511 |
| 1955 | 5,523 | 1,364 | 6,887 | 1,815 | 3,949 | 8,583 | 43 | 21,277 |
| 1956 | 7,958 | 1,661 | 9,619 | 1,775 | 4,408 | 6,190 | 1 | 21,993 |
| Quebec.....1952 | 125,208 | 9,184 | 134,392 | 18,717 | 28,046 | 60,745 | 1,027 | 242,927 |
| 1953 | 160,325 | 11,502 | 171,827 | 41,692 | 30,931 | 53,699 | 834 | 298,983 |
| 1954 | 163,891 | 13,665 | 177,556 | 32,463 | 28,998 | 62,011 | 702 | 301,730 |
| 1955 | 191,517 | 15,126 | 206,643 | 38,131 | 50,118 | 88,126 | 864 | 383,882 |
| 1956 | 187,636 | 16,069 | 203,705 | 53,043 | 69,922 | 70,548 | 1,122 | 398,340 |
| Ontario.....1952 | 262,579 | 22,039 | 284,618 | 69,594 | 82,605 | 61,260 | 4,000 | 502,077 |
| 1953 | 350,484 | 24,373 | 374,857 | 111,940 | 95,877 | 82,288 | 4,813 | 669,775 |
| 1954 | 419,499 | 22,933 | 442,432 | 93,388 | 86,902 | 100,767 | 6,449 | 729,938 |
| 1955 | 474,454 | 24,849 | 499,303 | 79,078 | 117,139 | 96,425 | 8,648 | 800,593 |
| 1956 | 425,498 | 29,375 | 454,873 | 100,998 | 120,350 | 127,691 | 6,113 | 810,025 |
| Manitoba.....1952 | 26,262 | 2,247 | 28,509 | 1,671 | 16,312 | 7,051 | 74 | 53,617 |
| 1953 | 34,992 | 2,262 | 37,254 | 5,612 | 6,417 | 5,376 | 80 | 54,739 |
| 1954 | 39,922 | 2,076 | 41,998 | 8,958 | 7,545 | 17,109 | 133 | 75,743 |
| 1955 | 46,835 | 2,758 | 49,593 | 12,905 | 10,796 | 26,736 | 76 | 100,106 |
| 1956 | 38,130 | 2,707 | 40,837 | 5,151 | 15,238 | 14,039 | 205 | 75,470 |
| Saskatchewan.....1952 | 17,573 | 2,080 | 19,653 | 809 | 7,794 | 5,054 | 118 | 33,428 |
| 1953 | 31,565 | 2,916 | 34,481 | 6,446 | 7,882 | 15,105 | 143 | 61,057 |
| 1954 | 24,930 | 2,255 | 27,185 | 8,201 | 6,514 | 13,654 | 118 | 55,672 |
| 1955 | 29,615 | 2,257 | 31,872 | 4,252 | 7,668 | 13,911 | 101 | 57,804 |
| 1956 | 26,923 | 2,360 | 29,283 | 4,216 | 9,884 | 10,073 | 173 | 53,629 |
| Alberta.....1952 | 57,939 | 4,868 | 62,807 | 3,464 | 21,866 | 10,439 | 509 | 99,085 |
| 1953 | 78,175 | 5,454 | 83,629 | 14,149 | 17,024 | 19,587 | 541 | 134,930 |
| 1954 | 68,126 | 5,062 | 73,188 | 12,378 | 29,091 | 32,418 | 605 | 147,680 |
| 1955 | 83,403 | 5,488 | 88,891 | 26,415 | 29,561 | 31,080 | 621 | 176,568 |
| 1956 | 84,388 | 6,562 | 90,950 | 17,559 | 44,920 | 34,060 | 615 | 188,104 |
| British Columbia....1952 | 54,180 | 6,570 | 60,750 | 5,036 | 16,530 | 10,741 | 1,262 | 94,319 |
| 1953 | 75,990 | 7,697 | 83,687 | 13,967 | 25,037 | 25,907 | 1,269 | 149,867 |
| 1954 | 93,221 | 7,973 | 101,194 | 15,645 | 18,048 | 27,742 | 2,291 | 164,920 |
| 1955 | 122,425 | 8,684 | 131,109 | 30,768 | 28,280 | 36,021 | 3,213 | 229,391 |
| 1956 | 118,493 | 10,185 | 128,678 | 35,817 | 53,559 | 27,162 | 1,880 | 247,096 |
| Canada ¹1952 | 559,098 | 50,406 | 609,504 | 100,570 | 181,102 | 164,171 | 7,051 | 1,062,398 |
| 1953 | 751,724 | 58,002 | 809,726 | 200,782 | 190,919 | 213,261 | 7,697 | 1,423,385 |
| 1954 | 826,227 | 57,295 | 883,522 | 175,675 | 186,540 | 265,083 | 10,365 | 1,521,185 |
| 1955 | 968,025 | 62,937 | 1,030,962 | 195,735 | 253,544 | 310,746 | 13,619 | 1,804,666 |
| 1956 | 902,084 | 71,438 | 973,522 | 221,601 | 326,227 | 296,359 | 10,171 | 1,827,880 |

¹ Provincial totals do not add to the Canada totals because of rounding of the figures and because certain minor adjustments could not be distributed provincially.

The indexes given in Table 17 show as far as possible the fluctuations in building costs and their effect upon construction work and employment. The relative proportions of material and wage costs in general building are difficult to determine since such proportions vary with the type of building and the centres studied.

17.—Value of Building Permits Issued in 204 Municipalities and Index Numbers of the Building Construction Industries 1947-56

| Year | Value of Building Permits, 204 Municipalities | Average Index Numbers (1949=100) | | | |
|-----------|---|----------------------------------|-----------------|--|--|
| | | Prices of Building Materials | | Wage Rates in Construction Industries ¹ | Employment in Building Construction ² |
| | | Residential | Non-residential | | |
| | \$'000 | | | | |
| 1947..... | 373,231 | 79.1 | 84.5 | 84.1 | 81.9 |
| 1948..... | 536,058 | 95.4 | 95.9 | 95.7 | 91.4 |
| 1949..... | 616,161 | 100.0 | 100.0 | 100.0 | 100.0 |
| 1950..... | 801,765 | 106.4 | 105.0 | 104.8 | 104.7 |
| 1951..... | 681,162 | 125.5 | 118.6 | 118.6 | 116.0 |
| 1952..... | 802,738 | 124.9 | 123.2 | 128.6 | 127.1 |
| 1953..... | 1,088,880 | 123.9 | 124.4 | 136.2 | 128.2 |
| 1954..... | 1,151,087 | 121.7 | 121.8 | 140.0 | 115.8 |
| 1955..... | 1,310,124 | 124.3 | 123.4 | 145.4 | 117.4 |
| 1956..... | 1,318,927 | 128.5 | 128.0 | 150.7 | 138.7 |

¹ Compiled by the Department of Labour, Ottawa.

² As reported by employers.

Section 3.—Housing*

Subsection 1.—Government Aid to House Building

Federal Assistance.—The Federal Government's housing policy has been developed through a succession of Housing Acts. The Government originally entered the housing field in 1919 when, by an Order in Council passed under the War Measures Act of 1918, it made \$25,000,000 available for loans to provincial governments. The provinces in turn lent the money to municipalities for the construction of moderate-cost housing. The first general piece of federal housing legislation was the Dominion Housing Act of 1935. This was succeeded by the National Housing Acts of 1938, 1944 and 1954.

The Federal Government's activities in housing today are defined by the National Housing Act, 1954. Central Mortgage and Housing Corporation, incorporated by Act of Parliament in 1945, administers these activities. The President of the Corporation reports to the Minister of Public Works.

In general, the Federal Government has attempted to stimulate and supplement the market for house building, rather than assume direct responsibilities which rightfully belong to other levels of government or which could more effectively be borne by private enterprise.

More than one-third of the house building in Canada today is aided by the participation of the Federal Government in one way or another.

Insured Mortgage Loans.—To assist the financing of new housing construction, both for home ownership and rental housing, the Corporation insures mortgage loans. These loans are made by banks and other financial institutions which have been approved as lenders under the Act.

The borrower pays an insurance fee. CMHC is the underwriter and all insurance fees remitted by the approved lenders are paid into the Mortgage Insurance Fund. When claims are made on the Fund, the amount paid includes 98 p.c. of the aggregate of the

* Prepared in the Information Division, Central Mortgage and Housing Corporation, Ottawa.

principal owing on the mortgage, approved borrowers' charges and interest, together with an acquisition fee of \$125 and approved taxable legal disbursements. The usual term of an insured mortgage loan is 25 years.

For home ownership, the loans may be 90 p.c. of the first \$12,000 of lending value and 70 p.c. of the remainder. The total loan cannot exceed \$12,800 plus the insurance fee. For rental housing, loans are limited to 80 p.c. of lending value. Maximum loans are prescribed by Order in Council for various types of housing units. Repayment periods, as well as loan proportions, are prescribed in the National Housing Act. There are special provisions for loans to co-operative groups and defence workers. The maximum interest rate for loans is determined by Order in Council and was set at 6 p.c. in January 1957. The interest rate must not exceed the yield on 20-year Federal Government bonds by more than $2\frac{1}{4}$ p.c. at the time it is set.

The Act requires the Corporation to determine lending values of properties, to prescribe minimum standards of construction and to perform compliance inspections during construction. These and other administrative arrangements are included in the National Housing Loan Regulations established by Order in Council.

During 1956, loans were approved for 38,673 units amounting to \$387,757,000; in the first six months of 1957, loans were approved for 12,264 units amounting to \$132,918,000.

Direct Corporation Loans.—The Act authorizes the Corporation to make direct loans for new residential construction in certain cases:—

- (1) Loans in lieu of private loans. The Corporation may make loans directly to prospective borrowers who are unable to obtain loans from a private approved lender. These loans are subject to the same terms and conditions as insured loans. Government policy has directed that, except for defence worker loans, direct loans are not available in metropolitan areas, nor in cities with more than 55,000 population, nor to merchant builders, nor to rental investors.
- (2) Loans to limited dividend companies. The Corporation, with the approval of the Governor in Council, may make a direct loan to a limited dividend company for the construction of moderate- or low-rental housing. Such loans may be up to 90 p.c. of the lending value and may be repayable over a period of up to 50 years.
- (3) Loans to primary producers. The Corporation may make a loan to a company engaged in mining, lumbering, logging and fishing for the construction of a moderate cost rental housing project. Such loans may be up to 80 p.c. of the lending value. The term may not exceed 15 years.

The rates of interest for loans to limited dividend companies and primary producers are established by Order in Council. The interest rate on limited dividend loans is restricted to a rate not exceeding the rate on long-term government bonds plus $\frac{1}{2}$ of 1 p.c. In the case of primary producer loans, the rate must not exceed the bond rate by more than $1\frac{1}{2}$ p.c.

In 1956, 26 loans were approved for 1,620 units to limited dividend companies; their value was \$10,600,000. In the first six months of 1957, 25 loans for 1,190 units totalling \$8,930,000 were approved. Six loans for 290 units totalling \$2,500,000 were approved in 1956 for primary industries and, in the first six months of 1957, five loans for 416 units amounting to \$3,700,000 were approved.

In 1956 other direct loans were approved for 700 units amounting to \$6,300,000 and in the first half of 1957 other loans for 1,969 units totalling \$19,600,000 were approved.

In addition to making direct loans, the Corporation may also supply money to private lenders to make loans on behalf of the Government. No such activity was undertaken in 1956. Arrangements for making such loans, however, were entered into with the approved lenders in September 1957, and over 16,000 units were approved by December 1957.

Purchase and Sale of Mortgages.—The Act provides that any person or company may purchase insured mortgages in Canada, provided that the mortgage is continuously administered by an approved lender. During 1956, 4,922 insured mortgages totalling

\$49,600,000 were sold by lenders. In the first six months of 1957, 2,954 mortgages amounting to \$28,700,000 were sold. The majority of these insured mortgages were bought by pension funds. The Corporation is authorized to buy and sell mortgage loans under both the National Housing Act and the Central Mortgage and Housing Corporation Act but there has been little activity under these provisions.

Home Improvement Loans.—The Corporation provides insurance to banks and installment credit agencies for loans made to home owners for the improvement of property. Fees, which are paid by the borrowers, are deposited in an insurance fund maintained by the Corporation. The Act prescribes the forms of security, the limit of loans upon individual properties and the term of the loan. During 1956, 30,380 loans were approved for a total amount of \$29,700,000. In the first six months of 1957, there were 12,317 loans approved amounting to \$12,258,000.

Federal-Provincial Projects.—Where the Federal Government and a provincial government enter into a partnership agreement, the Corporation may undertake jointly with the province the development of a housing or land-assembly project. Capital costs, profits and losses of such projects are shared 75 p.c. by the Federal Government and 25 p.c. by the province, or jointly by the province and a municipality. Under this legislation two main types of projects are involved: (1) construction of housing units for rental on either an economic or a subsidized basis; and (2) the assembly and servicing of residential lots for sale to prospective home owners and builders.

During 1956 agreements were made for construction of 520 dwelling units in six low-rental housing projects. In the first six months of 1957 agreements were made for 47 units. In 1956 agreements were made for the assembly and servicing of 595 lots in three land-assembly projects. None were made in the first six months of 1957.

Urban Redevelopment.—The Act also provides that where a municipality agrees to acquire and clear a blighted or substandard area with a view to using the site for low-rental housing or for other purposes, a federal grant may be made to the municipality amounting to 50 p.c. of the cost of acquisition and clearance. The area must be substantially residential either before or after redevelopment. The Corporation receives a share of the revenue from the project proportionate to the contributions made.

In 1956 the Federal Government authorized a grant of \$2,467,587 to Montreal to aid in the acquisition and clearance of 20 acres of blighted land. It is proposed that this land be used for a federal-provincial rental project of 800 units. There were no grants made in the first six months of 1957.

Construction Activities.—The Corporation may also carry out construction on its own account or on behalf of Federal Government departments and agencies. It has built projects for the Departments of National Defence, Public Works, Fisheries and Transport and also for Atomic Energy of Canada Limited. During 1956 total expenditures on construction were \$31,600,000. A limited amount of housing is also constructed by other Federal Government departments and agencies for their employees. Often this housing is built in remote areas.

Research and Community Planning.—The Corporation is responsible for undertaking investigations into housing conditions, for sponsoring technical research and for causing the distribution of information leading to the improvement of housing accommodation and the adoption of community plans. The Act provides that the Government can make funds available to the Corporation for these purposes and that, by Order in Council, a grant may be made to a municipality, to an educational or research institution or to an individual. Expenditures of \$694,444 for these purposes were made during 1956. In the first six months of 1957 expenditures of \$175,400 were made.

Guarantees.—The Act provides the following powers which are not at present being used.

- (1) *Guaranteed rental.* Under certain conditions the Corporation is authorized, for a premium, to guarantee returns of private investors from moderate rental housing projects. While this section is technically operative, the related loans are rarely available through the approved lenders, and the Government has instructed the Corporation that direct loans of this type are not to be offered.
- (2) *Lending companies investment.* The Corporation is authorized to offer guarantees to life insurance companies for low-cost or moderate-cost rental housing projects, or to institutional investors for land development. There has been no activity under these headings in recent years.
- (3) *Buybacks.* The Corporation is also authorized to offer purchase guarantees to builders. Guarantees have been offered recently in respect of housing for defence workers, but by Government direction the section is otherwise inoperative.

Other Legislation.—Other Federal legislation in the housing field includes the Canadian Farm Loan Act, 1927, which provides for federal long-term loan assistance for farm housing as well as for other farm purposes; the Veterans' Land Act, 1942, which is administered by the Department of Veterans Affairs and provides loan and grant assistance to veterans for housing and other purposes; and the Farm Improvement Loans Act, 1944, which provides for guarantees for intermediate- and short-term loans made by approved lending agencies to farmers for housing and other purposes.

Provincial Assistance.—All provinces except Prince Edward Island have passed complementary legislation to provide for federal-provincial partnership arrangements for the assembly of land and the construction of low-rent housing as provided in the National Housing Act. The Provinces of Quebec and Ontario have also passed separate housing legislation. In Quebec the "Act to Improve Housing Conditions" (S.Q. 1948, c. 6) and an amendment (S.Q. 1951-52, c. 7) authorize the Province to pay a subsidy on interest charges in excess of 3 p.c. on new dwellings. A further amendment (S.Q. 1953-54, c. 7) increases authorized expenditures under the Act to \$55,000,000 from \$40,000,000.

In Ontario the Housing Development Amendment Act (S.O. 1952, c. 39) authorizes the Province and a municipality to enter into joint housing projects. For industries starting in rural areas and in small communities the Province and municipality may join with Central Mortgage and Housing Corporation in the development of housing projects. Under certain conditions the Province may expropriate land in municipalities for the purpose of housing projects. This Act amended the Housing Development Act (R.S.O. 1950, c. 174).

The Planning Amendment Act (S.O. 1952, c. 75) permits municipalities with an approved official plan to designate an area within the municipality as a redevelopment area and to acquire land in that area and clear and prepare it for residential, commercial, industrial or other designated purpose. This Act amended the Planning Act (R.S.O. 1950, c. 227).

The Rural Housing Assistance Act (S.O. 1952, c. 92) authorizes the establishment of the Rural Housing Finance Corporation, a Crown company which can lend and invest mortgage money in order to provide financial assistance in the building of new houses in villages and rural areas. The Corporation may lend money independently or in co-operation with CMHC or with any approved lending institution.

The Junior Farmer Establishment Act (S.O. 1952, c. 45) establishes the Ontario Junior Farmer Establishment Loan Corporation, which makes loans to assist qualified young farmers in buying, developing and operating their farms. The Corporation may make loans for the construction and improvement of farm houses. Such loans may be secured by a first mortgage on the property. They cannot exceed \$15,000, and are repayable in 25 years.

The Elderly Persons Housing Aid Act (S.O. 1952, c. 27) authorizes the Province to make grants to any limited dividend company to which a loan has been made under the NHA and whose application has been approved by a municipality. The grant amounts to \$500 for each dwelling or 50 p.c. of the capital cost of the project, whichever is the lower. The capital cost excludes the amount covered by the mortgage loan.

HOUSE CONSTRUCTION STARTS BY MONTH, 1951-57

SEASONALLY ADJUSTED AT ANNUAL RATES

THOUSANDS OF UNITS

THOUSANDS OF UNITS

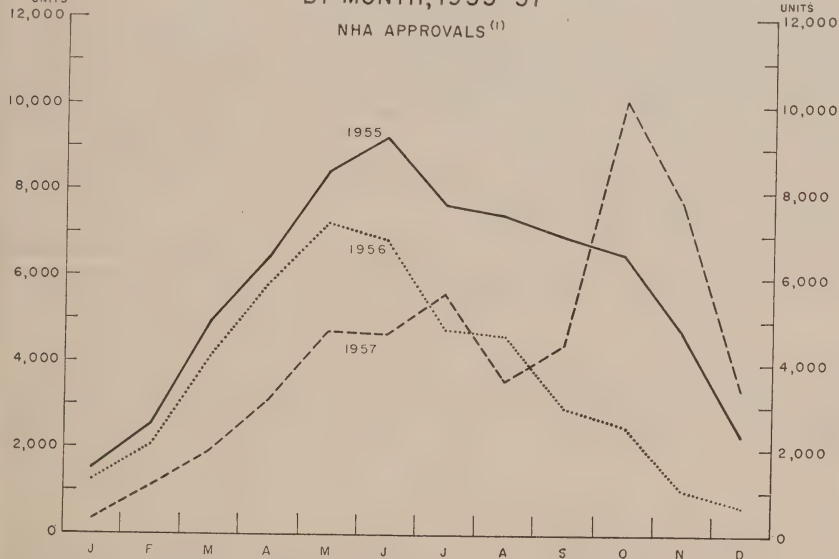


APPLICATIONS APPROVED FOR LOANS UNDER NATIONAL HOUSING ACT, BY MONTH, 1955-57

NHA APPROVALS ⁽¹⁾

UNITS

UNITS



(1) INCLUDES CMHC LOANS—DIRECT AND AGENCY

Subsection 2.—Housing Development in 1956-57

House-building activity in 1957, although lower than in the previous year, continued at a high level. Housing starts declined during the first quarter of 1957 but made a substantial recovery during the second quarter. This upward trend continued, though at a more moderate rate, throughout the remainder of the year and it appeared that total starts for 1957 would exceed 120,000 units. The decline from the level of 1956, when 127,000 units were started, was mainly a result of the continued scarcity of mortgage credit.

The shortage of mortgage funds was particularly acute for loans under the National Housing Act. In August 1957, the Government acted to ease the situation and made available \$150,000,000 for loans under the Act for moderately priced housing.

Housing completions, which lag starts by about six months, are expected to number about 117,000 units in 1957. In 1956 completions totalled 136,000, reflecting a carryover of some 79,000 uncompleted units from the record number started in the preceding year.

House-Building Activity.—Housing starts began to decline in the latter part of 1955 but the rate of decline was moderate until the fourth quarter when there was a sharp drop. This decline extended into the first quarter of 1957. A recovery commenced during the second quarter and the upward trend continued throughout the remainder of the year. Virtually all of the decline in housing starts in the two years 1956 and 1957 took place in the urban centres of 5,000 population or over. Starts in other areas were down only slightly. This disparity in the rates of new house building reflects differences in methods of financing such construction. Activity under the National Housing Act is largely concentrated in urban centres. With the shortage of mortgage money having its main impact on loans under the Act, house building in urban centres suffered more than in other areas.

The decline in activity under the National Housing Act was also reflected in the change in the proportion of starts represented by single-family dwellings. Starts of such dwellings represented 72 p.c. of the 1955 total but declined to 68 p.c. during the first nine months of 1957.

Corresponding with the record number of completions, expenditures on new housing construction reached a peak in 1956, amounting to \$1,574,000,000 compared with \$1,499,000,000 in the previous year. The estimated expenditure for 1957 was \$1,416,000,000.

Mortgage Lending.—The reversal during 1956 and 1957 in the upward trend which started in 1953 reflected in large measure shifts in the demand for investment funds. Between 1953 and 1955 capital investment for non-housing purposes showed no increase, mortgage funds for new housing were readily available, and housing starts increased by 35 p.c. From late 1955 to 1957, however, demand for long-term capital for non-housing purposes increased greatly and such investment outlets generally offered higher yields than mortgage loans. The volume of mortgage lending for new housing was reduced, and between 1955 and 1957 housing starts declined by 16 p.c. while investment for non-housing purposes increased by more than 50 p.c.

With the strength of demand for funds for mortgage loans weaker, relative to supply, in 1956 and 1957 than in 1955, mortgage lending by lending institutions declined. During 1956, lending institutions—comprising the chartered banks, life insurance companies, and loan and trust companies—approved mortgage loans for \$997,000,000 which was 17 p.c. below the amount for 1955. In the first six months of 1957, the decline from the previous year was 33 p.c. In both years, mortgage lending under the terms of the National Housing Act suffered the largest decline—in 1956 all of the decline was under the Act. In 1957, mortgage lending on existing housing and on non-residential property also declined. Conventional mortgage lending for new housing showed little change from 1955 to 1957. Starts were held as high as 127,000 in 1956 by virtue of the increase in that part of the housing program financed without the assistance of mortgage loans. Two factors effected the decline in institutional mortgage lending—the rise in interest rates and the position of the chartered banks at the end of 1955.

As competition for the available supply of investment funds increased through 1956 and 1957, interest rates also increased, reaching their highest levels in the postwar period. The maximum rate of interest chargeable on loans under the National Housing Act was

raised in both 1956 and 1957. In March 1956 it was increased by one-quarter per cent to 5½ p.c. and in January 1957 there was a further increase to 6 p.c. Despite these increases, mortgage loans under the Act became less attractive to investors than other forms of investment. During 1957 many of the institutional lenders also experienced a reduction in the rate of growth of their total assets which was reflected in reduced mortgage portfolios.

The chartered banks entered the mortgage-lending field under the National Housing Act of 1954. In that year and in 1955, they were in process of building up their mortgage portfolios, in which they were aided by the relative liquidity of their assets and by the marked asset growth they were experiencing. In 1956 and 1957, however, the growth in the assets of the chartered banks was only moderate and, in addition, they were faced with heavy demands for business loans. As a result, the mortgage-lending activity of the chartered banks, all of it under the National Housing Act, declined by more than 50 p.c. between 1955 and 1956. In March 1957, the Governor of the Bank of Canada received assurances from the chartered banks that they would approve mortgage loans for \$150,000,000 in 1957 an amount that represented little change from 1956.

In August 1957, the Government acted to ease the shortage of funds under the National Housing Act by making available \$150,000,000 for loans under the Act for small homes. The arrangement provided for approved lenders to act as agents of Central Mortgage and Housing Corporation in making the loans.

By mid-November, agency loans in process and approved amounted to over \$132,000,000 and in December a further \$150,000,000 was provided. With a reduced flow of mortgage funds under the Act from private investors, there was an increase in the use of public funds for direct loans, particularly in 1957. Mortgage loans made directly by Central Mortgage and Housing Corporation increased by nearly 200 p.c. from mid-1956 to mid-1957. During 1956 and 1957 loans to limited dividend companies increased over 1955. In 1956 loans were approved for 1,620 rental housing units in limited dividend projects compared with 1,419 units in the preceding year. During the first nine months of 1957 there were approvals for 2,800 units and loans to primary producers were approved for 416 units.

Building Costs.—The costs of housing construction increased by 8 p.c. in 1956 and 6 p.c. in 1957. Most of this increase reflected higher wage costs; building material prices rose in 1956 but changed little in 1957 and land costs continued to advance. In 1956 the average price paid for lots for single-family dwellings financed under the National Housing Act was \$2,041 compared with \$1,819 in 1955. In the first half of 1957, the average price was \$2,254.

In addition to increases in construction and land, higher costs also resulted from an increase in the average size of new dwellings. In housing financed under the Act, average floor areas went up from 1,102 sq. feet in 1955 to 1,138 in 1956 and to 1,169 in the first half of 1957.

As a result of all these changes, average total costs of houses financed under the National Housing Act, including land and construction, went up from \$12,847 in 1955 to \$13,960 in 1956 and \$14,598 in the first half of 1957.

Urban Renewal and Federal-Provincial Projects.—Interest in urban renewal continued to grow throughout 1956 and 1957 and several cities applied to Central Mortgage and Housing Corporation for assistance in carrying out renewal studies. The results of earlier studies were published during 1956-57 by the Cities of Halifax, Winnipeg, Saint John, Toronto and Vancouver.

Construction commenced during 1956 on a 733-unit federal-provincial project in the Regent Park South area of Toronto. This project is being built on a 26-acre site, which is being cleared for redevelopment. Construction also started on a federal-provincial project at Lawrence Heights in Toronto, designed to provide 1,081 dwelling units. Clearing of substandard units from a Montreal downtown area was started in 1957 as part of the plan to renew 20 acres and provide an 800-unit low-rental federal-provincial project.

Housing Design.—During 1956, Central Mortgage and Housing Corporation assisted in the establishment of the Canadian Housing Design Council, an independent body devoted to the promotion of improved housing design. The Council has initiated annual series of regional and national awards for good design in builders' houses.

During 1956 and 1957 the Corporation's architectural division designed, wholly or in collaboration with private firms, permanent married quarters for the Department of National Defence, federal-provincial projects for Regent Park South and Lawrence Heights in Toronto and for St. John's, Nfld., and the Jeanne Mance redevelopment project in Montreal. It also developed plans for the northern towns of Fort Smith, Frobisher Bay, Aklavik, Great Whale River and Tuktoyaktuk, in collaboration with the government departments and agencies concerned.

Housing Statistics.—Tables 18 and 19 show housing starts and completions for 1952-56 and by province and locality for 1956. The numbers of loans approved under the National Housing Act and their amounts for 1952-56 are shown in Table 20.

18.—Housing Units Started and Completed 1952-56, and by Province 1956

| Year and Province | Housing Units Started | | | Housing Units Completed | | |
|---------------------------|------------------------|--------|---------|-------------------------|--------|---------|
| | Under the Housing Acts | Other | Total | Under the Housing Acts | Other | Total |
| | No. | No. | No. | No. | No. | No. |
| 1952..... | 34,400 | 48,846 | 83,246 | 20,633 | 52,454 | 73,087 |
| 1953..... | 39,989 | 62,420 | 102,409 | 35,506 | 61,333 | 96,839 |
| 1954..... | 50,373 | 63,154 | 113,527 | 39,137 | 62,828 | 101,965 |
| 1955..... | 65,380 | 72,986 | 138,366 | 58,852 | 69,077 | 127,929 |
| 1956..... | 43,395 | 83,916 | 127,311 | 61,957 | 73,743 | 135,700 |
| Province, 1956 | | | | | | |
| Newfoundland..... | 267 | 1,385 | 1,652 | 295 | 1,215 | 1,510 |
| Prince Edward Island..... | 16 | 98 | 114 | 29 | 142 | 171 |
| Nova Scotia..... | 675 | 2,196 | 2,871 | 824 | 1,725 | 2,549 |
| New Brunswick..... | 482 | 2,899 | 3,381 | 653 | 1,797 | 2,450 |
| Quebec..... | 7,333 | 28,666 | 35,999 | 10,665 | 30,501 | 41,166 |
| Ontario..... | 21,304 | 27,408 | 48,712 | 31,338 | 19,863 | 51,201 |
| Manitoba..... | 2,135 | 3,069 | 5,204 | 3,397 | 3,041 | 6,438 |
| Saskatchewan..... | 1,630 | 2,149 | 3,779 | 2,072 | 1,531 | 3,603 |
| Alberta..... | 5,440 | 5,222 | 10,662 | 7,043 | 4,579 | 11,622 |
| British Columbia..... | 4,113 | 10,824 | 14,937 | 5,641 | 9,349 | 14,990 |

19.—Housing Units Started by Locality 1956

| Locality | Popu- lation | Under the Housing Acts | | Other | | Total | |
|--|-----------------|---------------------------|------------------------------|---------------|------------------------------|---------------|------------------------------|
| | | Started | Per 1,000 Popu- lation | Started | Per 1,000 Popu- lation | Started | Per 1,000 Popu- lation |
| | | | | | | | |
| | '000 | No. | No. | No. | No. | No. | No. |
| Metropolitan Areas— | | | | | | | |
| Calgary..... | 196 | 2,130 | 11 | 1,612 | 8 | 3,742 | 19 |
| Edmonton..... | 245 | 2,356 | 10 | 847 | 3 | 3,203 | 13 |
| Halifax..... | 160 | 510 | 3 | 679 | 4 | 1,189 | 7 |
| Hamilton..... | 326 | 1,867 | 6 | 1,534 | 4 | 3,401 | 10 |
| London..... | 153 | 866 | 6 | 504 | 3 | 1,370 | 9 |
| Montreal..... | 1,595 | 4,371 | 3 | 14,797 | 9 | 19,168 | 12 |
| Ottawa-Hull..... | 335 | 2,395 | 7 | 1,866 | 6 | 4,261 | 13 |
| Quebec..... | 301 | 370 | 1 | 2,281 | 8 | 2,651 | 9 |
| Saint John..... | 85 | 129 | 2 | 208 | 2 | 337 | 4 |
| St. John's..... | 78 | 77 | 1 | 386 | 5 | 463 | 6 |
| Toronto..... | 1,348 | 7,151 | 5 | 9,727 | 7 | 16,878 | 12 |
| Vancouver..... | 659 | 2,502 | 4 | 5,948 | 9 | 8,450 | 13 |
| Victoria..... | 123 | 321 | 3 | 866 | 7 | 1,187 | 10 |
| Windsor..... | 184 | 892 | 5 | 505 | 3 | 1,397 | 8 |
| Winnipeg..... | 410 | 2,020 | 5 | 1,369 | 3 | 3,389 | 8 |
| Totals, Metropolitan Areas..... | 6,198 | 27,957 | 4 | 43,129 | 7 | 71,086 | 11 |

19.—Housing Units Started by Locality 1956—concluded

| Locality | Popu- lation | Under the Housing Acts | | Other | | Total | |
|---------------------------------------|-----------------|---------------------------|------------------------------|---------------|------------------------------|----------------|------------------------------|
| | | Started | Per 1,000 Popu- lation | Started | Per 1,000 Popu- lation | Started | Per 1,000 Popu- lation |
| | '000 | No. | No. | No. | No. | No. | No. |
| Major Urban Areas— | | | | | | | |
| Brantford..... | 58 | 147 | 2 | 159 | 3 | 306 | 5 |
| Chicoutimi-Jonquière..... | 88 | 266 | 3 | 389 | 4 | 655 | 7 |
| Fort William-Port Arthur..... | 85 | 211 | 2 | 306 | 4 | 517 | 6 |
| Guelph..... | 38 | 217 | 6 | 124 | 3 | 341 | 9 |
| Kingston..... | 62 | 229 | 4 | 240 | 4 | 469 | 8 |
| Kitchener..... | 87 | 533 | 6 | 395 | 5 | 928 | 11 |
| Moncton..... | 56 | 210 | 4 | 199 | 3 | 409 | 7 |
| Niagara Falls..... | 51 | 221 | 4 | 190 | 4 | 411 | 8 |
| Oshawa..... | 72 | 427 | 6 | 258 | 4 | 685 | 10 |
| Peterborough..... | 55 | 259 | 5 | 115 | 2 | 374 | 7 |
| Regina..... | 89 | 565 | 6 | 446 | 5 | 1,011 | 11 |
| St. Catharines..... | 93 | 555 | 6 | 212 | 2 | 767 | 8 |
| Sarnia..... | 52 | 319 | 6 | 250 | 5 | 569 | 11 |
| Saskatoon..... | 71 | 728 | 10 | 262 | 4 | 990 | 14 |
| Sault Ste. Marie..... | 50 | 213 | 4 | 243 | 5 | 456 | 9 |
| Shawinigan Falls..... | 59 | 71 | 1 | 301 | 5 | 372 | 6 |
| Sherbrooke..... | 67 | 48 | 1 | 281 | 4 | 329 | 5 |
| Sudbury..... | 94 | 289 | 3 | 406 | 4 | 695 | 7 |
| Sydney..... | 107 | 45 | -- | 200 | 2 | 245 | 2 |
| Timmins..... | 39 | 3 | -- | 20 | 1 | 23 | 1 |
| Three Rivers..... | 81 | 42 | -- | 367 | 5 | 409 | 5 |
| Totals, Major Urban Areas..... | 1,454 | 5,598 | 4 | 5,363 | 4 | 10,961 | 8 |
| Other localities..... | 8,429 | 9,840 | 1 | 35,424 | 4 | 45,264 | 5 |
| Canada..... | 16,081 | 43,395 | 3 | 83,916 | 5 | 127,311 | 8 |

20.—Net Loans Approved under the National Housing Acts by Province 1952-56

NOTE.—Figures for 1945-51 will be found in the 1955 Year Book p. 744.

| Year and Item | Nfld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Yukon and N.W.T. | Canada |
|-------------------|-------|--------|-------|-------|--------|---------|--------|--------|--------|--------|------------------------|---------|
| 1952— | | | | | | | | | | | | |
| Loans.....No. | 26 | 9 | 227 | 167 | 4,092 | 12,336 | 1,380 | 307 | 3,486 | 1,688 | — | 23,718 |
| Dwellings....." | 27 | 9 | 260 | 182 | 9,117 | 16,038 | 1,916 | 629 | 4,056 | 2,089 | — | 34,323 |
| Amount.....\$'000 | 198 | 64 | 2,036 | 1,438 | 60,538 | 123,794 | 13,159 | 4,533 | 28,789 | 14,535 | — | 249,084 |
| 1953— | | | | | | | | | | | | |
| Loans.....No. | 158 | 15 | 410 | 308 | 4,684 | 13,097 | 1,558 | 633 | 3,738 | 1,913 | — | 26,514 |
| Dwellings....." | 168 | 16 | 1,130 | 333 | 7,456 | 18,839 | 2,050 | 832 | 5,464 | 2,360 | — | 38,648 |
| Amount.....\$'000 | 1,279 | 124 | 7,813 | 2,629 | 55,459 | 145,129 | 14,969 | 6,231 | 39,593 | 17,593 | 4 | 290,823 |
| 1954— | | | | | | | | | | | | |
| Loans.....No. | 127 | 16 | 480 | 375 | 6,975 | 20,422 | 1,913 | 884 | 4,500 | 3,882 | — | 39,574 |
| Dwellings....." | 166 | 16 | 746 | 391 | 9,057 | 26,170 | 2,540 | 1,040 | 5,649 | 4,344 | — | 50,119 |
| Amount.....\$'000 | 1,665 | 154 | 6,075 | 3,372 | 81,128 | 240,683 | 21,813 | 9,152 | 49,321 | 39,418 | — | 452,781 |
| 1955— | | | | | | | | | | | | |
| Loans.....No. | 343 | 31 | 656 | 496 | 8,089 | 29,538 | 3,006 | 1,674 | 6,499 | 5,813 | 4 | 56,149 |
| Dwellings....." | 344 | 33 | 778 | 667 | 10,876 | 33,498 | 3,403 | 1,982 | 7,057 | 6,694 | 4 | 65,336 |
| Amount.....\$'000 | 3,560 | 311 | 6,869 | 5,390 | 97,899 | 326,657 | 29,722 | 17,010 | 64,766 | 63,091 | 37 | 615,312 |
| 1956— | | | | | | | | | | | | |
| Loans.....No. | 200 | 12 | 547 | 398 | 5,390 | 17,466 | 2,026 | 1,252 | 4,899 | 3,602 | 2 | 35,794 |
| Dwellings....." | 178 | 12 | 650 | 412 | 7,105 | 20,292 | 2,136 | 1,528 | 5,080 | 3,888 | 2 | 41,283 |
| Amount.....\$'000 | 2,002 | 124 | 6,087 | 3,916 | 68,205 | 202,763 | 19,814 | 13,544 | 50,737 | 39,914 | 26 | 407,132 |

THE CHANGING PATTERN OF CANADA'S HOUSING

Housing is one of the nation's most valuable assets and house building is one of its largest industries. By far the greatest number of houses in a developed country is inherited from the past and the houses built in any year constitute but a fraction of the total stock. The whole character of Canada's cities has been shaped by previous generations and is part of the legacy from the past. Many houses in Canada today are old—nearly one in every ten was built in the 1880's or earlier and more than half a million are from fifty to seventy-five years old.

In every period of national expansion the large amount of new building irrevocably leaves its imprint on the community. The old is torn down to make way for the new, land uses change, and the pattern of each community alters. There is a continual change in the nature of the housing problem. The changes may be less spectacular in some places than in others, but work goes on constantly at the margin of the housing stock. Not only is the face of the old city altered, but new towns come into being.

Each generation has left its mark upon the housing stock but the present generation is destined to leave a major imprint, the result of the massive population growth being experienced and of two factors peculiar to the times—the long-term high level mortgage and the automobile. The first has encouraged the building of single-family homes in large quantity and the second, by increasing people's mobility, has permitted the sprawling suburban development that has become almost synonymous with postwar building.

More than anything else, these two factors can be said to have determined the character of the recent growth in housing. They have brought to the Canadian scene a uniformity in city building which was absent in the past. Until recently, Canadian cities have been recognizably different. Each bore the marks of the particular period in which its greatest expansion occurred. Saint John was notably different from Quebec, Montreal differed markedly from Edmonton or Calgary. In the postwar period, however, all cities have grown together and all bear the character of this newer growth.

At the end of the Second World War the country's housing stock was greatly overburdened. Its growth had been impeded by depression and war, and the demands on the existing supply of houses were intensified by the return of the veterans. Moreover, there were only a small number of contractors and construction workers with any substantial experience in house building, which had seen its last boom in the 1920's, and many building materials were in short supply. By the 1950's, however, this bottleneck had largely disappeared and the introduction of new building techniques, greater use of power equipment and the emergence of large-scale merchant builders helped to increase substantially the industry's capacity.

Curiously enough, even in this period of stringent shortage of accommodation, there was widespread doubt about the effective demand for new housing over the long pull. At the outset, the housing problem was considered simply as one of overcoming the backlog of demand and meeting the needs of returning veterans. In fact, it soon became a question of keeping pace with the current rate of growth in the number of families and in the population generally. Marriages and births during the period far exceeded expectations and there was heavy immigration. In addition there was a persistent drift of persons from farms to cities.

Canada, however, entered the postwar period with some advantages. There was enough land already serviced for building to proceed rapidly, the lenders were anxious to make mortgage loans, and legislation passed immediately before the end of the War enabled prospective home owners to get fairly large loans on comparatively easy terms.

In most urban areas the supply of serviced land at the beginning of the postwar period was substantial. The housing boom of the 1920's had collapsed before meeting the expectations of land developers and many municipalities had extended sewer and water services to areas thought to be in the path of immediate growth. Much of this land lay fallow during the 1930's and through the war years and was available for immediate postwar housing development in the late 1940's.

Mortgage money was not a serious obstacle. The companies providing the bulk of private institutional mortgage funds were peculiarly disposed at the end of the War to look favourably on the mortgage field. They came out of the War with heavy portfolios of low-yield Federal Government securities and greatly reduced mortgage holdings. To the extent that Federal Government bond prices were maintained, these institutions were ready and even anxious to convert them to other investments, including mortgages. Moreover, a ready channel for these funds for mortgage purposes was provided through the National Housing Act, 1944, the principal instrument of government policy in the housing field. This Act made it possible for the borrower to obtain mortgage loans with relatively low down payments, 20- or 25- year amortization and convenient monthly payments in constant amounts. To the lender, the legislation offered an attractive interest return and guarantees against losses that greatly diminished the risk in the event of default. The National Housing Act also contained provision for financing low-rental houses through limited dividend companies, for grants to municipalities undertaking slum clearance projects, for loans to primary industries for the construction of employee dwellings, and it set aside funds to promote research into social, economic and technical housing matters, both by government and outside agencies. Central Mortgage and Housing Corporation was established, by Act of Parliament in 1945, as a Crown agency to administer federal housing policy. A new National Housing Act was introduced in 1954.

Demand remained strong throughout the whole postwar period and, except in the early postwar years, the capacity of the house-building industry and of its suppliers has not limited the output of houses. The limits on house-building, particularly since 1950, have come rather from tightness in the capital market, or from shortage of serviced land or from both. These particular restraints directly reflect the two basic problems of new housing in any period—how much to build and where to build it.

The amount of money invested in mortgages from year to year is subject to the constraint imposed by the total volume of savings available, domestic and imported, and the competing claims for their use. Through the capital market, mortgages and therefore housing must compete for funds with other investment outlets. Important changes were made in the National Housing Act in 1954 to enable mortgage borrowers under the Act to compete more effectively with other borrowers for available funds. The chartered banks of Canada and the Quebec savings banks were empowered to make mortgage loans under the National Housing Act. Furthermore, the guarantees against loss to the lenders were attached to the mortgage rather than to the original lender, so that the resulting mortgage would be more easily negotiable. This was done to facilitate sales of these mortgages so that pools of savings not formerly available for such purposes could serve as a source of mortgage money. Whatever the degree of institutional or individual freedom in the investment of funds, the mortgage market will, however, always be affected by developments in the general capital market, and can never be held free from the effects of business, institutional and government investment in other fields. Shortage of mortgage funds need not always constitute the main immediate limitation on house building, but it has done so over much of the past seven years.

The amount of land ready to receive new housing is also affected by the availability of investment funds. Most residential land in urban Canada today must be served with water and sewer mains and roads and with the attendant trunk lines, arterial traffic routes, and municipal plant and services that these frontage facilities imply. The basic municipal plant and trunk facilities are financed in large measure by the municipality but the cost of fronting services may be financed by the municipality, or may be capitalized in the price of land to the purchaser and paid for with mortgage funds or purchasers' savings. If financed by municipalities or by mortgage lenders, the provision of these services is limited by the constraints of the capital market. If, on the other hand, their costs are met in cash by the purchaser, their market is limited by the availability of liquid assets for down payments.

Two factors in recent times have tended to increase the cost of urban services. Canada's postwar housing program has been based largely on demand generated by comparatively easy mortgage-lending terms for home owners. In addition, the private

automobile has made it appear feasible to accommodate large urban populations in single-family houses. As a result, a very great part of postwar residential building in Canada has been in the form of single-family houses for home ownership. More conspicuous than any other feature of the housing stock provided by Canadians in the postwar period has been its spatial extent. It is not merely that the growth has been suburban. Urban growth for the most part has to be suburban. But the suburban growth itself has been prodigal of land. The flatness of Canada's urban growth has not been manifest only in the predominance of single-family houses, but in the concentration on one-storey to the exclusion of one-and-a-half and two-storey houses. Escape from the servicing costs of this kind of development has seldom been sought in a more compact arrangement of houses, but often in a further dispersion of house building to areas where lots are large enough to permit the use of wells and septic tanks in place of piped water supply and sewage disposal.

It is widely believed that this kind of development, by extending unduly the distances over which urban services are provided, raises the costs of new housing both to the owners and to the community. From the point of view of costs, the community may be unable to provide as much new housing in this form as could be built if there were a higher incidence of row houses and other types of multiple accommodation and a less prodigal use of land for single-family dwellings.

The prospects for urban growth in Canada during the next quarter-century point to an even greater development of towns and cities than during the past twelve years. Demand is likely to be sustained for the next ten years and after that to be greatly accelerated by a high rate of family formation and natural population increase. The house-building industry has shown itself capable of increasing its capacity to meet any demands it may face. New techniques are also likely to increase its productivity and through increased competition to improve the product. The critical factors will be the flow of mortgage money and the supply of serviced land. A flexible policy will be necessary to keep in balance the demands for mortgage funds and the claims for other investments. It is estimated that before 1980 about 900 sq. miles will be required to house the new population of Canada's cities.

Recent surveys show that the number of automobiles in use on Canadian highways will continue to increase sharply during the next few decades, but it is too early to foretell the impact of this greater mobility on Canadian living patterns. Equally, the broader mortgage facilities which permit a larger proportion of families to own a home are of comparatively recent origin. In the generality of their use, both are newcomers and their full effects have yet to be seen. Working out the appropriate use of these devices so far as housing is concerned is undoubtedly one of the main problems of the present and the future.



The Changing Architectural Scene

1. The business district of Montreal, that proud and progressive cosmopolitan city of interminable individuality, reflects, perhaps more than any other area of like size, Canada's present era of economic and physical growth. It is in a state of continual change—new buildings rear their heads, thoroughfares are widened and new traffic arteries opened. A striking plaza-type business, commercial and entertainment centre of massive proportions, of which the new Queen Elizabeth Hotel forms a part, will be completed within the next five years.

2-4. The B.C. Electric Building rising high on Vancouver's skyline, the cafeteria in the Imperial Oil Building in Toronto and a clean-cut modern factory in a new industrial area typify the present concept of working conditions for the office and production employee.

5-9. Service establishments and public buildings—such as (5) the Park Plaza Hotel in Toronto, (6) the recently completed City Hall in Ottawa, (7) and (8) the hundreds of new bank buildings and post offices, large and small, scattered across the country, and (9) health and welfare institutions exemplified by one of Ontario's several newly constructed homes for the aged—keep pace in attractiveness and utility of design.

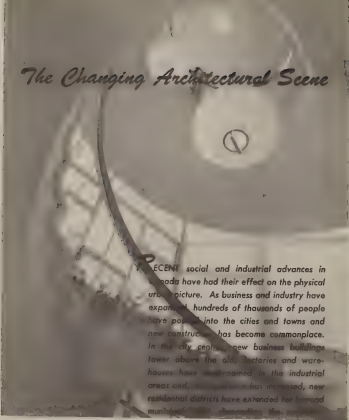
10. This beautiful custom-built home, perfectly suited to its surroundings, might be found in any Canadian city or town.

11. Federal-provincial housing projects are replacing slums in downtown Toronto and Montreal, providing pleasant comfortable accommodation for low-income families.

12. A medium-priced housing development near Ottawa is typical of the new look in suburban residential districts.

13-15. An essential part of suburban expansion is the new church, dignified in its quiet simplicity, the low sprawling functional school buildings, and that postwar innovation, the shopping centre.

16-17. The Vancouver Art Gallery and Woodbine Race Track grandstand at Toronto are certain indications that new cultural and sports facilities also add to the aesthetic scene.



RECENT social and industrial advances in Canada have had their effect on the physical urban picture. As business and industry have expanded, hundreds of thousands of people have poured into the cities and towns and new construction has become commonplace. In the city centres, new business buildings tower above the old, factories and warehouses have mushroomed in the industrial areas and, as suburbanization has increased, new residential districts have extended far beyond municipal limits. Everywhere the modern community facilities—schools, churches, shopping centres, hospitals and cultural and sports facilities. New structures are functional in design and modern in aspect, embodying the progressive efforts of the builder, the architect and the researcher, and attempting to provide the best possible environment in which to work and live.

CHAPTER XVII.—SURVEY OF PRODUCTION*

CONSPECTUS

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| SECTION 2. PROVINCIAL DISTRIBUTION OF PRODUCTION..... | 739 | | |

NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

The scope of the Survey of Production is limited to industries chiefly engaged in the actual production of commodities. The activities of such industries as transportation, communication, trade, finance and service are excluded, except for certain of their costs that are indirectly reflected in the value of output of the commodity-producing industries; for instance, costs of such business services as insurance, advertising and telephone to the commodity-producing industries are included in the selling or gross value of their products. This is in contrast to the widely used Gross National Product series (*see* Chapter XXV) which encompasses all industries.

In obtaining the “net” value for each commodity industry, the cost of materials, fuel, purchased electricity and process supplies (but not other business services) consumed in the production process is deducted from the selling or gross value of output. The resulting net value of production (or value added) is generally considered more significant as a measure of output than gross value of production and is therefore used in the following analyses and tables.

The measurement of value added is similar, although not strictly comparable, to the concept involved in the contribution of each industry to gross national product at factor cost (net income originating plus depreciation). Apart from variations in the statistical structure the main difference is that value added, as computed for each commodity-producing industry, includes the cost of business services as described above. In national income accounting, the contribution of these services to gross national product at factor cost is classified to the non-commodity industries from which they originate.

One of the major advantages of the commodity-production series is that the statistics may be classified by provinces. With the exception of personal income and its major components, the geographical distribution of gross national product is not available mainly because profits cannot be allocated according to the provinces in which they are generated by productive activity. A more detailed explanation of the series is given in the current DBS Bulletin *Survey of Production*.

Major revisions made in the statistics of the construction and forestry industries have affected the comparability of the survey of production figures presented here with those presented in earlier editions. A description of these revisions together with revised data is given in DBS Bulletins *Survey of Production 1950-54* and *1951-55*.

* Prepared in the Business Statistics Section, Research and Development Division, Dominion Bureau of Statistics.

Section 1.—Industrial Distribution of Production

Trend in the Period 1950-55.—The total net value of commodity production rose by 46 p.c. between 1950 and 1955. Sustained demand for consumer goods both domestically and abroad, the industrial and resource development programs, and the expansion of defence industries all contributed to this advance, and each of the eight industrial groups showed an increase in value of output in the five-year comparison. The net value of agricultural production in 1955 was \$1,937,000,000, somewhat higher than in 1950, though far below the total for 1951. A much larger wheat crop in 1955 resulted in an increase in value from the low point of 1954. The net value of output of forestry operations was nearly \$665,000,000 in 1955, \$80,000,000 above the 1954 total and 36 p.c. above 1950; the 1955 total, however, was only slightly above the previous peak in 1951. Value of production in the primary fisheries industry for 1955 was \$91,000,000, about 11 p.c. higher than in 1950 but lower than in most intervening years. Quantity of seafish landed fell off in 1955 from the 1954 peak, although prices of fisheries products were slightly higher. Value of output in the trapping industry in 1955 was somewhat above the 1950 level.

Over the review period the net value of production in the mining industry advanced steadily to a record high of \$1,061,000,000 in 1955, more than 61 p.c. above the 1950 level. The volume of fuel production was up 156 p.c., petroleum rising by nearly 350 p.c. Volume of metal output recorded a 24-p.c. gain. Shipments of iron ore were well over four times higher in 1955 than in 1950 and were still rising rapidly. In 1955, when operations in the Labrador area covered the full season for the first time, output of ore was double the 1954 total. Production of non-metals rose by 23 p.c. in the 1950-55 period. The generation of electric power showed an increase of 50 p.c. in the same comparison and, in terms of net value, the industry advanced by over 73 p.c.

The net value of manufacturing production rose fairly steadily over the 1950-55 period—the total of \$8,753,000,000 in 1955 was 47 p.c. above 1950. The value of durable manufactures was up more than 52 p.c. in this comparison, and of non-durables nearly 43 p.c. The former accounted for nearly 48 p.c. of manufacturing net value in 1955 as compared with 46 p.c. in 1950. Non-ferrous metal products advanced 90 p.c. and showed the greatest increase among the durable industries, iron and steel products and transportation equipment increased by about 47 p.c., and wood products by 36 p.c. The net value of non-metallic mineral products increased by over 79 p.c., and value of electrical apparatus by 49 p.c. In the non-durables sector, petroleum and coal products recorded the largest increase of 189 p.c., followed by chemical products and printing and publishing with gains of 67 p.c. and 52 p.c., respectively. By contrast, value of output in the textiles industry showed a fractional decline as compared with 1950 and production of clothing (including knitting mill products) rose by less than 14 p.c.

The construction industry showed the largest proportionate gain of the major commodity industries. The value of net output increased by almost 88 p.c. from \$1,475,000,000 in 1950 to \$2,770,000,000 in 1955, accounted for by a substantial rise in the amount of building activity and by a sharp advance in construction costs. Investment in new construction for 1955 stood at \$3,328,000,000, 82 p.c. above the corresponding figure for 1950. Investment rose steeply in both the residential and the non-residential sectors.

During the period 1950-55, the contribution of secondary commodity output continued to increase, relatively to primary production. In 1955 secondary production (manufacturing and construction) accounted for nearly 73 p.c. of all commodity output as compared with 68 p.c. in 1950. The main factor in this change was the large gain in the contribution of construction which accounted for 17.5 p.c. of all commodity production value in 1955 as compared with 13.6 p.c. in 1950. The share of manufacturing, which was slightly under 55 p.c. in 1950, was virtually unchanged in 1955.

The decline in the contribution of the primary industries from just under 32 p.c. in 1950 to slightly over 27 p.c. in 1955 was entirely accounted for by a drop in agriculture from 17.3 p.c. in 1950 to 12.2 p.c. in 1955. The reduced share of agricultural output during 1954 and 1955 was largely the result of smaller wheat crops.

1.—Net Value of Production by Industry 1950 and 1952-55

NOTE.—Net production represents total value under a particular heading, less the cost of materials, fuel, purchased electricity and supplies consumed in the production process. Data for fisheries and trapping represent total value.

| Industry | 1950 | 1952 | 1953 | 1954 | 1955 |
|---------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | \$ | \$ | \$ | \$ | \$ |
| Primary Industries¹ | 3,438,227,063 | 4,384,743,664 | 4,140,993,393 | 3,746,817,841 | 4,314,884,920 |
| Agriculture ¹ | 1,883,036,000 | 2,489,860,000 | 2,239,227,000 | 1,665,933,000 | 1,937,170,000 |
| Forestry ¹ | 487,119,735 | 608,482,562 | 558,795,751 | 584,337,805 | 664,664,738 |
| Fisheries ¹ | 82,191,043 | 92,746,000 | 89,832,000 | 97,542,000 | 90,891,200 |
| Trapping | 15,204,419 | 14,137,820 | 13,221,035 | 9,839,383 | 17,423,973 |
| Mining | 657,328,669 | 777,443,771 | 790,596,855 | 900,609,249 | 1,061,430,009 |
| Electric power | 313,347,197 | 402,073,511 | 449,320,752 | 488,556,404 | 543,305,000 |
| Secondary Industries | 7,417,058,229 | 9,420,236,199 | 10,447,101,351 | 10,430,681,137 | 11,523,165,496 |
| Manufactures | 5,942,058,229 | 7,443,533,199 | 7,993,069,351 | 7,902,124,137 | 8,753,450,496 |
| Construction | 1,475,000,000 | 1,976,703,000 | 2,454,032,000 | 2,528,557,000 | 2,769,715,000 |
| Totals¹ | 10,855,285,292 | 13,804,979,863 | 14,588,094,744 | 14,177,498,978 | 15,838,050,416 |

¹ Exclusive of agriculture in Newfoundland.

2.—Percentage Analyses of the Net Value of Production by Industry 1950 and 1952-55

| Industry | Net Value in— (1949=100) | | | | | Percentage of Total Net Production | | | | |
|-----------------------------|-----------------------------|--------------|--------------|--------------|--------------|---------------------------------------|--------------|--------------|--------------|--------------|
| | 1950 | 1952 | 1953 | 1954 | 1955 | 1950 | 1952 | 1953 | 1954 | 1955 |
| Primary Industries | 103.7 | 132.3 | 124.9 | 113.0 | 130.2 | 31.7 | 31.8 | 28.4 | 26.4 | 27.2 |
| Agriculture | 93.3 | 123.3 | 110.9 | 82.5 | 95.9 | 17.3 | 18.1 | 15.4 | 11.8 | 12.2 |
| Forestry | 130.9 | 163.5 | 150.1 | 157.0 | 178.6 | 4.5 | 4.4 | 3.8 | 4.1 | 4.2 |
| Fisheries | 121.8 | 137.5 | 133.2 | 144.6 | 134.7 | 0.8 | 0.7 | 0.6 | 0.7 | 0.6 |
| Trapping | 99.4 | 92.4 | 86.4 | 64.3 | 113.9 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Mining | 115.3 | 136.3 | 138.6 | 157.9 | 186.1 | 6.1 | 5.6 | 5.4 | 6.3 | 6.7 |
| Electric power | 116.0 | 148.8 | 166.3 | 180.9 | 201.1 | 2.9 | 2.9 | 3.1 | 3.4 | 3.4 |
| Secondary Industries | 110.7 | 140.6 | 155.9 | 155.6 | 171.9 | 68.3 | 68.2 | 71.6 | 73.6 | 72.8 |
| Manufactures | 111.5 | 139.6 | 149.9 | 148.2 | 164.2 | 54.7 | 53.9 | 54.8 | 55.8 | 55.3 |
| Construction | 107.6 | 144.2 | 179.0 | 184.4 | 202.0 | 13.6 | 14.3 | 16.8 | 17.8 | 17.5 |
| Totals | 108.4 | 137.8 | 145.6 | 141.5 | 158.1 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Current Trend.—The net value of Canadian commodity production during 1955 rose to \$15,838,000,000, nearly 12 p.c. above the 1954 total. All industries except fisheries shared in this advance. Manufacturing and construction accounted for about two-thirds of the over-all increase of \$1,661,000,000 and the primary industries one-third.

Among the major expansionary forces were the rise in personal expenditure on consumer goods and services, the sharp increase in residential construction, and the strong recovery of exports (principally of forestry and mining products) and of business outlays for plant, machinery and equipment. The rise in government expenditures for goods and services, the larger grain crop and the swing in business inventories from liquidation in 1954 to net accumulation in 1955 also contributed to the increase.

Preliminary data for 1956 indicate an increase over 1955 of more than 10 p.c. in the net value of commodity output. This continued strong expansion of economic activity was principally the result of the very large advance of 33 p.c. in business investment outlays for new construction, machinery and equipment. In addition, both consumer expenditures and exports continued to show strong gains as compared with the preceding year. By contrast, investment in residential construction recorded only a small increase. This strength in end-product demand was reflected in the expansion of most commodity-producing industries. Advance data indicate that agricultural output rose by 10 p.c. over 1955, mining production showed an appreciable increase of more than 12 p.c., and the forestry, fisheries and electric power industries recorded some advance over the high levels of 1955. The net value of manufacturing production rose by about 10 p.c. in the same

comparison, accounted for mainly by substantial gains in most durable industries, especially iron and steel products. The construction industry showed the largest increase among the commodity groups in 1956; the net value rose by more than 20 p.c. as compared with 1955.

Advance indicators suggest a levelling off in the net value of production for 1957. During the first nine months of 1957, the index of industrial production averaged only 1.5 p.c. higher than in the corresponding period of 1956; the seasonally adjusted index reached a peak in February and later showed a steadily declining trend. For the first ten months of 1957, the general wholesale price index averaged a little over 1 p.c. above the level for the same period of 1956.

Section 2.—Provincial Distribution of Production

Each province and territory recorded a higher net value of production in 1955 than in 1950. Alberta and British Columbia showed the highest proportionate gains in this comparison. Value of output in Alberta rose by over 73 p.c. during the five years, and value of production in British Columbia by more than 54 p.c. These provinces were followed by Quebec with an increase of 47 p.c., Ontario with 43 p.c., and Saskatchewan with 45 p.c. Advances were more moderate in the other provinces.

Newfoundland.—In 1955 the net value of commodity production in Newfoundland, exclusive of agriculture which is of minor importance in the Province, amounted to nearly \$190,000,000, or about 1.2 p.c. of the Canadian total. Manufacturing accounted for more than 30 p.c. of all commodity production, the products being mainly produced by pulp and paper mills and fish processing plants. Mining followed manufacturing in importance with a contribution of 22 p.c. to provincial output. The principal mineral product is iron ore, which had a greatly expanded output in 1955, and the production of zinc and lead was substantial. Construction also contributed 22 p.c. of Newfoundland's value of commodity production, followed by forestry and primary fisheries.

Prince Edward Island.—The economy of this Province is largely agricultural. Farm output in 1955—principally livestock, potatoes and dairy products—constituted nearly 46 p.c. of the total value of commodity production. Construction contributed 25 p.c. and, together with manufactures, accounted for the bulk of non-farm output. Total net value of production was more than 27 p.c. higher in 1955 than in 1950, and in the later year represented 0.3 p.c. of Canadian commodity production.

Nova Scotia.—The net value of production in Nova Scotia increased nearly 31 p.c. between 1950 and 1955 and accounted for 2.2 p.c. of the national total in the latter year. In 1955, manufactures contributed 40 p.c. of the Province's value of production and primary iron and steel, fish processing, pulp and paper production and shipbuilding were the most important manufacturing industries. Construction accounted for almost 21 p.c. of the Province's total output. Mining and agriculture, Nova Scotia's principal primary industries, contributed approximately 15 p.c. and 9 p.c., respectively, to the 1955 total. Coal mining represented nearly 75 p.c. of the total value of mineral output and dairy products, livestock, poultry and eggs were the principal farm products.

New Brunswick.—The net value of commodity output in New Brunswick recorded a substantial increase in 1955 after declining slightly during the immediately preceding years, and was nearly 22 p.c. above the 1950 total. Over the period, New Brunswick's contribution to the Canadian aggregate fell from 2.3 p.c. to 1.9 p.c. Manufacturing accounted for 40 p.c. of all value of commodity output in 1955, and the main industries were pulp and paper, sawmilling, fish processing and shipbuilding. The primary industries of agriculture and forestry accounted for 13 p.c. and 11 p.c., respectively, of 1955 output. The most important farm products were livestock, dairy items, potatoes and eggs. The net value of construction output increased to make up nearly 27 p.c. of the provincial aggregate in 1955.

Quebec.—In 1955 Quebec's net value of production was \$4,205,000,000, which was nearly 27 p.c. of the total Canadian value of output. The provincial increase during the 1950-55 period was more than 47 p.c. Manufacturing was by far the most important activity; it represented over 62 p.c. of all provincial production. Pulp and paper remained the leading manufacturing industry, contributing about 11 p.c. of total factory output, but non-ferrous metal smelting and refining, clothing, petroleum products, textiles and electrical apparatus were also of major importance. In 1955, agriculture's share of the provincial output fell to less than 8 p.c. as compared with 10 p.c. in 1950; dairy items, livestock and poultry accounted for the greater part of farm production. The construction industry contributed 15.5 p.c. to provincial production as compared with 12.3 p.c. in 1950.

Ontario.—The net value of commodity production in Ontario rose from \$4,544,000,000 in 1950 to \$6,480,000,000 in 1955, a gain of 43 p.c. The Province's contribution to the Canadian total was just under 41 p.c. in 1955 as compared with 42 p.c. in 1950. The economy of Ontario is largely dominated by manufacturing, which represented between 67 p.c. and 70 p.c. of total provincial commodity output throughout the 1950-55 period. Manufacturing industries contributing more than \$100,000,000 to the value of net output in 1955 were, in order of importance: motor vehicles, primary iron and steel, non-ferrous metal smelting and refining, pulp and paper, rubber products, aircraft and parts, motor vehicle parts, petroleum products and heavy electrical machinery. Agricultural output contributed just over 8 p.c. of the Province's value of production in 1955; the principal sources of farm income were: livestock, dairy products, tobacco, poultry, eggs and vegetables. Construction accounted for 15 p.c. of provincial net value of output in 1955 compared with 12.3 p.c. in 1950.

Manitoba.—Manitoba's net value of commodity production rose from \$483,000,000 in 1950 to \$590,000,000 in 1955, a gain of 22 p.c., although the total fluctuated somewhat over the period. Manitoba's contribution to the Canadian aggregate, however, declined from 4.4 p.c. to 3.7 p.c. over the 1950-55 period. The value of farm output in the Province has declined in recent years and manufacturing has displaced agriculture as the Province's dominant activity.

Thus in 1955 manufacturing contributed nearly 42 p.c. of the total value of commodity output. Slaughtering and meat packing, railway rolling-stock and petroleum products were the leading manufacturing industries. Agriculture's share of provincial output, which had been 38 p.c. in 1950, fell to just over 25 p.c. in 1955; grains and livestock were the principal farm products. The value of construction rose sharply during the period and accounted for nearly 23 p.c. of the total value of provincial output in 1955; the comparable figure for 1950 was 15 p.c.

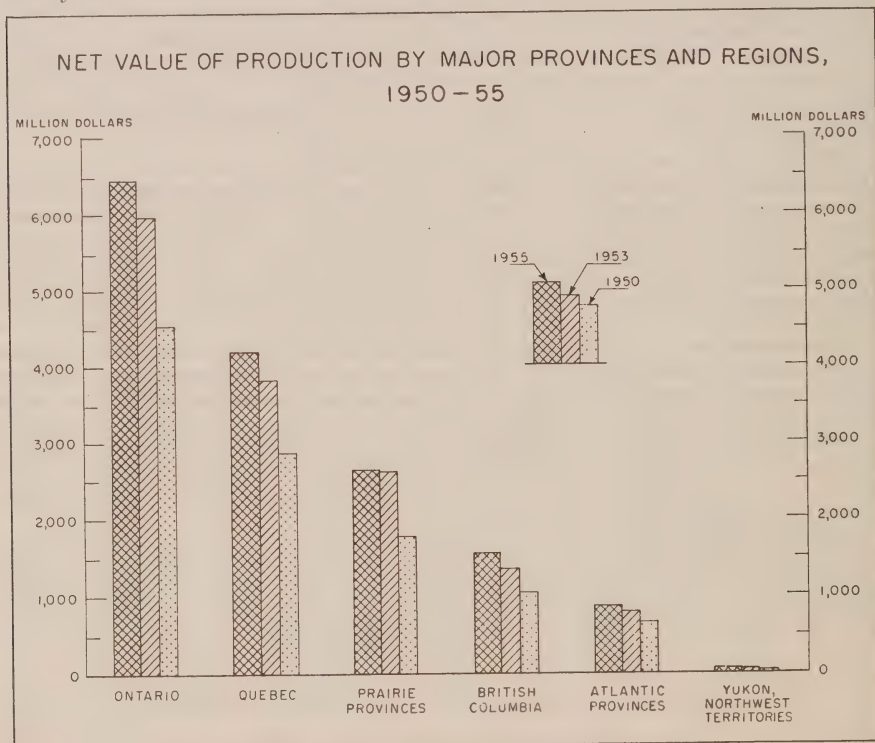
Saskatchewan.—The economy of Saskatchewan is largely dependent upon agriculture and particularly on the wheat crop. The poor yield of 1954 was followed by a fair crop in 1955, and the Province's commodity output rose in that year to \$795,000,000. Although this amount was 45 p.c. above the 1950 output, it was lower than the total value for several of the intervening years. In 1955 Saskatchewan contributed 5.0 p.c. of the Canadian aggregate, almost unchanged from its contribution in 1950 but distinctly less than in the years from 1951 to 1953 when bumper crops were harvested. Agriculture contributed 58 p.c. of the Province's output in 1955.

Manufacturing in the same year represented more than 14 p.c. of the Province's value of production. Petroleum products form the leading industry of Saskatchewan, but slaughtering and meat packing, flour milling, brewing and butter and cheese industries also make significant contributions. The net value of construction was lower than in 1954 and accounted for nearly 19 p.c. of net commodity output.

Alberta.—Alberta's net value of production advanced to \$1,273,000,000 in 1955, more than 73 p.c. above the 1950 total. The Province's contribution to the national aggregate was 8.0 p.c. in 1955, compared with 6.8 p.c. in 1950. Agriculture has declined

in relative importance in Alberta, accounting for slightly over 25 p.c. of provincial output in 1955 compared with 44 p.c. in 1950. The net value of mining output, on the other hand, rose from \$123,000,000 in 1950 to \$304,000,000 in 1955, reflecting primarily the development of Alberta's petroleum resources. The contribution of mining to the provincial total increased from less than 17 p.c. in 1950 to nearly 24 p.c. in 1955. Manufacturing output also rose steadily, accounting for nearly 21 p.c. of the provincial total in 1955 compared with 17 p.c. in 1950. Petroleum refining, slaughtering and meat packing, sawmilling and brewing were the leading manufacturing industries. The dynamic growth of this Province during the 1950-55 period is indicated by the fact that construction accounted for nearly 27 p.c. of the provincial aggregate in 1955 and thus was the leading commodity industry; in 1950 its contribution was 19 p.c.

British Columbia.—The net value of output in British Columbia advanced from \$1,023,000,000 in 1950 to \$1,578,000,000 in 1955, or by 54.2 p.c. In 1955 the Province contributed 10 p.c. of the Canadian total, ranking third among the provinces. Manufacturing continued to account for nearly half the provincial total in 1955, sawmilling heading the list of industries, followed by pulp and paper. Also of importance were veneers and plywoods, petroleum products, fertilizers, fish processing and shipbuilding. Construction accounted for over 20 p.c. of the provincial total in 1955 and was second in value of output. Forestry was third with nearly 17 p.c. and mining fourth. Zinc, lead and copper are the principal mineral products of British Columbia, and lower levels of prices for lead and zinc contributed to a decline in the relative importance of the mining industry since 1952.



3.—Net Value of Production by Province 1950 and 1952-55

NOTE.—Figures for 1950-53 have been revised since the publication of the 1956 edition as a result of changes in the forestry item.

| Province or Territory | 1950 | 1952 | 1953 | 1954 | 1955 |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | \$ | \$ | \$ | \$ | \$ |
| Newfoundland ¹ | 102,811,196 | 151,070,304 | 157,415,689 | 163,905,151 | 189,777,105 |
| Prince Edward Island..... | 31,056,036 | 42,260,508 | 34,288,640 | 37,574,980 | 39,556,811 |
| Nova Scotia..... | 266,817,980 | 319,858,908 | 333,690,394 | 344,953,863 | 348,963,556 |
| New Brunswick..... | 248,114,967 | 271,424,288 | 266,700,077 | 265,572,217 | 301,500,350 |
| Quebec..... | 2,856,012,592 | 3,628,580,123 | 3,810,434,557 | 3,888,597,165 | 4,205,071,322 |
| Ontario..... | 4,544,238,917 | 5,485,813,501 | 5,977,076,051 | 5,812,524,157 | 6,479,622,022 |
| Manitoba..... | 482,568,489 | 580,066,823 | 572,582,909 | 538,994,676 | 590,478,522 |
| Saskatchewan..... | 547,118,176 | 967,228,965 | 886,547,107 | 905,697,656 | 795,140,719 |
| Alberta..... | 735,897,957 | 1,060,251,662 | 1,170,742,662 | 1,117,693,012 | 1,273,176,313 |
| British Columbia ² | 1,023,154,853 | 1,278,277,196 | 1,357,028,175 | 1,364,080,561 | 1,577,870,127 |
| Yukon and Northwest Territories ² | 17,494,129 | 20,147,585 | 21,588,483 | 37,905,540 | 36,893,569 |
| Canada..... | 10,855,285,292 | 13,804,979,863 | 14,588,094,744 | 14,177,498,978 | 15,838,050,416 |

¹ Excludes agriculture with British Columbia.

² Construction figures for the Yukon and Northwest Territories are included

4.—Percentages of Total Net Production by Province 1950 and 1952-55

NOTE.—Figures for 1950-53 have been revised since the publication of the 1956 edition as a result of changes in the forestry item.

| Province or Territory | 1950 | 1952 | 1953 | 1954 | 1955 |
|--|--------------|--------------|--------------|--------------|--------------|
| | p.c. | p.c. | p.c. | p.c. | p.c. |
| Newfoundland ¹ | 0.9 | 1.1 | 1.1 | 1.2 | 1.2 |
| Prince Edward Island..... | 0.3 | 0.3 | 0.2 | 0.2 | 0.3 |
| Nova Scotia..... | 2.5 | 2.3 | 2.3 | 2.4 | 2.2 |
| New Brunswick..... | 2.3 | 2.0 | 1.8 | 1.9 | 1.9 |
| Quebec..... | 26.3 | 26.3 | 26.1 | 27.4 | 26.6 |
| Ontario..... | 41.9 | 39.7 | 41.0 | 41.0 | 40.9 |
| Manitoba..... | 4.4 | 4.2 | 3.9 | 3.8 | 3.7 |
| Saskatchewan..... | 5.0 | 7.0 | 6.1 | 4.3 | 5.0 |
| Alberta..... | 6.8 | 7.7 | 8.0 | 7.9 | 8.0 |
| British Columbia ² | 9.4 | 9.3 | 9.3 | 9.6 | 10.0 |
| Yukon and Northwest Territories ² | 0.2 | 0.1 | 0.2 | 0.3 | 0.2 |
| Totals..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

¹ Excludes agriculture with British Columbia.

² Construction figures for the Yukon and Northwest Territories are included

5.—Net Value of Production and Percentage Analysis by Province 1955

| Industry | Newfoundland | | Prince Edward Island | | Nova Scotia | | New Brunswick | |
|---------------------|----------------|----------|----------------------|--------------|----------------|--------------|----------------|--------------|
| | \$'000 | p.c. | \$'000 | p.c. | \$'000 | p.c. | \$'000 | p.c. |
| Agriculture..... | — | — | 18,171 | 45.9 | 30,225 | 8.7 | 38,375 | 12.7 |
| Forestry..... | 24,295 | — | 376 | 0.9 | 16,052 | 4.6 | 32,423 | 10.8 |
| Fisheries..... | 13,661 | — | 3,279 | 8.3 | 23,582 | 6.7 | 6,753 | 2.2 |
| Trapping..... | 48 | — | 2 | — | 207 | 0.1 | 184 | 0.1 |
| Mining..... | 42,625 | — | — | — | 50,850 | 14.6 | 10,405 | 3.4 |
| Electric power..... | 6,698 | — | 1,367 | 3.5 | 16,481 | 4.7 | 11,986 | 4.0 |
| Manufactures..... | 60,587 | — | 6,432 | 16.3 | 139,646 | 40.0 | 120,808 | 40.1 |
| Construction..... | 41,863 | — | 9,930 | 25.1 | 71,920 | 20.6 | 80,566 | 26.7 |
| Totals..... | 189,777 | — | 39,557 | 100.0 | 348,963 | 100.0 | 301,500 | 100.0 |

5.—Net Value of Production and Percentage Analysis by Province 1955—concluded

| Industry | Quebec | | Ontario | | Manitoba | | Saskatchewan | |
|---------------------|------------------|--------------|----------------------|--------------|---------------------------------|--------------|-------------------|--------------|
| | \$'000 | p.c. | \$'000 | p.c. | \$'000 | p.c. | \$'000 | p.c. |
| Agriculture..... | 331,794 | 7.9 | 526,895 | 8.1 | 149,866 | 25.4 | 459,758 | 57.8 |
| Forestry..... | 188,859 | 4.5 | 114,483 | 1.8 | 6,165 | 1.1 | 4,166 | 0.5 |
| Fisheries..... | 3,453 | 0.1 | 6,783 | 0.1 | 3,477 | 0.6 | 763 | 0.1 |
| Trapping..... | 1,750 | 0.1 | 4,286 | 0.1 | 2,970 | 0.5 | 3,715 | 0.5 |
| Mining..... | 233,120 | 5.5 | 221,263 | 3.4 | 22,545 | 3.8 | 45,357 | 5.7 |
| Electric power..... | 170,064 | 4.0 | 208,649 | 3.2 | 24,340 | 4.1 | 18,639 | 2.4 |
| Manufactures..... | 2,622,333 | 62.4 | 4,426,655 | 68.3 | 247,472 | 41.9 | 113,599 | 14.3 |
| Construction..... | 653,698 | 15.5 | 970,608 | 15.0 | 133,644 | 22.6 | 149,144 | 18.7 |
| Totals..... | 4,205,071 | 100.0 | 6,479,622 | 100.0 | 590,479 | 100.0 | 795,141 | 100.0 |
| | Alberta | | British Columbia | | Yukon and Northwest Territories | | Canada | |
| | \$'000 | p.c. | \$'000 | p.c. | \$'000 | p.c. | \$'000 | p.c. |
| Agriculture..... | 322,215 | 25.3 | 59,871 | 3.8 | — | — | 1,937,170 | 12.2 |
| Forestry..... | 13,163 | 1.0 | 264,232 | 16.7 | 449 | — | 664,665 | 4.2 |
| Fisheries..... | 688 | 0.1 | 27,711 | 1.8 | 742 | — | 90,891 | 0.6 |
| Trapping..... | 2,078 | 0.2 | 774 | — | 1,410 | — | 17,424 | 0.1 |
| Mining..... | 303,752 | 23.8 | 100,415 | 6.4 | 31,098 | — | 1,061,430 | 6.7 |
| Electric power..... | 28,858 | 2.3 | 54,761 | 3.5 | 1,462 | — | 543,305 | 3.4 |
| Manufactures..... | 263,309 | 20.7 | 750,877 | 47.6 | 1,733 | — | 8,753,450 | 55.3 |
| Construction..... | 339,113 | 26.6 | 319,229 ¹ | 20.2 | 1 | — | 2,769,715 | 17.5 |
| Totals..... | 1,273,176 | 100.0 | 1,577,870 | 100.0 | 36,894 | — | 15,838,050 | 100.0 |

¹ Construction figures for the Yukon and Northwest Territories are included with British Columbia.

Section 3.—Per Capita Net Value of Production

Between 1950 and 1955, an advance of 46 p.c. in the net value of commodity production was accomplished with a 14.5-p.c. increase in population and an 8-p.c. increase in the labour force. The national per capita net value of commodity output (exclusive of Newfoundland) increased from \$805 in 1950 to \$1,023 in 1955, a gain of over 27 p.c. Wholesale prices rose by less than 4 p.c. in the same period, indicating a substantial gain in 'real' per capita production.

Per capita net value of output in the Maritime Provinces has always been far below the Canadian average and, at \$519, was just over half that figure in 1955. Quebec's per capita production, which was 11 p.c. below the national average in 1950, stood at 9 p.c. below the average in 1955. On the other hand, per capita output in Ontario, consistently the highest among the provinces, was more than 20 p.c. above the national average in 1955.

Manitoba's production per capita was well below the national average throughout the period and, at \$704, was 31 p.c. below this figure in 1955. The figure for Saskatchewan, which fluctuates very widely with crop conditions, was 11 p.c. below the Canadian average in 1955, after rising 18 p.c. above it three years earlier in 1952. Alberta has been well above the Canadian average in this respect in recent years. It exceeded that average by 14 p.c. in 1955 and ranked third in per capita production. British Columbia with its diversified economy always ranks high in per capita output, and in 1955 stood second among the provinces, 15 p.c. above the national figure.

6.—Per Capita Net Value of Production with Percentage Variation from the National Average by Province 1950 and 1952-55

| Province | 1950 | | 1952 | | 1953 | | 1954 | | 1955 | |
|-------------------------------------|----------------------|------------|----------------------|------------|----------------------|------------|----------------------|------------|----------------------|------------|
| | Per Capita Net Value | Variation | Per Capita Net Value | Variation | Per Capita Net Value | Variation | Per Capita Net Value | Variation | Per Capita Net Value | Variation |
| | \$ | p.c. | \$ | p.c. | \$ | p.c. | \$ | p.c. | \$ | p.c. |
| Prince Edward Island.... | 324 | -59.8 | 423 | -56.3 | 339 | -66.0 | 372 | -60.5 | 396 | -61.3 |
| Nova Scotia..... | 418 | -48.1 | 490 | -49.4 | 503 | -49.6 | 513 | -45.5 | 511 | -50.0 |
| New Brunswick..... | 485 | -39.8 | 516 | -46.8 | 500 | -49.9 | 492 | -47.7 | 551 | -46.1 |
| Quebec..... | 720 | -10.6 | 869 | -10.3 | 893 | -10.5 | 886 | - 5.8 | 931 | - 9.0 |
| Ontario..... | 1,016 | +26.2 | 1,146 | +18.3 | 1,210 | +21.2 | 1,136 | +20.7 | 1,230 | +20.2 |
| Manitoba..... | 628 | -22.0 | 727 | -25.0 | 708 | -29.1 | 655 | -30.4 | 704 | -31.2 |
| Saskatchewan..... | 657 | -18.4 | 1,147 | +18.4 | 1,030 | + 3.2 | 694 | -26.2 | 906 | -11.4 |
| Alberta..... | 806 | + 1.2 | 1,090 | +12.5 | 1,157 | +15.9 | 1,057 | +12.3 | 1,167 | +14.1 |
| British Columbia ¹ | 900 | +11.8 | 1,056 | + 9.0 | 1,033 | + 8.5 | 1,060 | +12.6 | 1,178 | +15.2 |
| Canada²..... | 805 | ... | 969 | ... | 998 | ... | 941 | ... | 1,023 | ... |

¹ Includes the Yukon and the Northwest Territories.
that Province are not complete.

² Excludes Newfoundland because figures for

CHAPTER XVIII.—LABOUR*

CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

Section 1.—The Government in Relation to Labour

Subsection 1.—Federal Labour Legislation

The Federal Department of Labour was established in 1900 under the Conciliation Act which provided machinery to aid in preventing and settling labour disputes and required the Department to collect, compile and publish statistical and other relevant information. The Department also assumed the administration of the Fair Wages Policy adopted in the same year for the protection of workmen employed in the execution of Federal Government contracts and on works aided by grants from public funds.

The statutory duty of disseminating information concerning labour and industrial matters is now set out in the Department of Labour Act passed in 1909. In addition the Minister is responsible for the administration of the following statutes: Conciliation and Labour Act (1906); Government Annuities Act (1908)†; Government Employees Compensation Act (1918); Fair Wages and Hours of Labour Act (1935); Unemployment Insurance Act (1940); Vocational Training Co-ordination Act (1942); Reinstatement in Civil Employment Act (1946); Merchant Seamen Compensation Act (1946); Industrial Relations and Disputes Investigation Act (1948); Canada Fair Employment Practices Act (1953); and Female Employees Equal Pay Act (1956). (See also pp. 92-93.)

Fair Wages Policy.—The Fair Wages Policy applying to all Federal Government contracts was first set forth in a Resolution of the House of Commons (1900) and later incorporated in an Order in Council and amended from time to time. Wages and hours on contracts for construction are now regulated by the Fair Wages and Hours of Labour

* Except as otherwise noted, this Chapter has been revised under the direction of A. H. Brown, Deputy Minister, Department of Labour, Ottawa.

† Statistics and details of administration under this Act are given at pp. 274-276.

Act and Order in Council P.C. 2029 of Dec. 22, 1954. Hours of work on construction contracts are limited to eight per day and 44 per week, except in an emergency or in exceptional circumstances where exemption is granted by Order in Council; wages to be paid are those current for the type of work in the district or, if there are no current rates, fair and reasonable rates as determined by the Minister of Labour.

Wages and hours of work on contracts for equipment and supplies are also regulated by Order in Council P.C. 2029. The hours of such work must be those fixed by the custom of the trade in the district where the work is performed, or fair and reasonable hours. The wages must be current or fair and reasonable but in no event shall they be less than those established by statute or regulation of the province in which the work is being performed. This Order in Council contains a clause prohibiting discrimination against any person in matters of employment because of that person's race, national origin, colour or religion, or because he has made a complaint or given information with respect to such alleged discrimination.

*Government Prevailing Rate Employees.**—Twenty-six departments and agencies of government together employ approximately 38,000 (50,000 in summer) non-office workers in public buildings, defence establishments, parks and forests, experimental farms, canal operation, airports and government vessels, survey parties, special projects, etc. Such positions are exempt from the operations of the Civil Service Act and rates of pay are fixed by the Treasury Board in consultation with the Department of Labour on the basis of prevailing private industry rates for comparable work in the employment area. Data used in the determination of these pay rates are secured from wage surveys made by Industrial Relations Officers of the Department of Labour and wage research conducted by the Economics and Research Branch as well as from collective agreements and information supplied by some provincial Departments of Labour.

The Fair Wages Section of the Industrial Relations Branch also recommends rates of pay for 3,700 commissionaires employed by various government departments and agencies throughout Canada, provides wage data to assist certain Crown corporations in the preparation of their wage schedules, and gives assistance in the establishment of class titles, job descriptions and the application of job evaluation techniques.

Three sets of comprehensive Regulations have been established by the Treasury Board governing the hours of work, overtime, vacations, statutory holidays, sick leave, pensions, etc., for (1) prevailing rate workers generally employed; (2) ships' officers, and (3) ships' crews.

The Industrial Relations and Disputes Investigation Act.—This legislation came into effect by proclamation on Sept. 1, 1948, revoking the Wartime Labour Relations Regulations in effect since March 1944 and repealing the Industrial Disputes Investigation Act which had been in force from 1907 until suspended by the Wartime Regulations in 1944. The Act protects proceedings commenced and decisions, orders and certifications made under the wartime legislation in so far as these involve services authorized by the Act.

The Act applies only to industries within federal jurisdiction, viz., navigation, shipping, interprovincial railways, canals, telegraphs, steamship lines and ferries, both international and interprovincial, aerodromes and air transportation, radio broadcasting stations, and works declared by Parliament to be for the general advantage of Canada or of two or more provinces. However, the Act provides that provincial authorities if they so desire may enact similar legislation for application to employees within provincial jurisdiction and make mutually satisfactory arrangements with the Federal Government for the administration of such legislation by the federal authorities.

In general, the Act in its important features provides that employees and employers shall have the right to organize and bargain collectively and that trade unions may be certified as bargaining agents for employee groups. Trade unions and employers are required, upon notice, to bargain collectively in good faith. The Act provides for invoking collective

* Statistics on numbers and earnings of prevailing rate and other groups of federal employees exempt from the Civil Service Act are given on pp. 98-102.

bargaining negotiations and for the mediation of conciliation officers and conciliation boards in reaching collective agreements. Employees may change bargaining agents at times under conditions specified in the Act which also prescribes conditions affecting the duration and renewal of collective agreements. Collective agreements are required to contain provision for the arbitration of disputes concerning the meaning or violation of such agreements and where such provision is lacking application may be made for its establishment. The Act prohibits unfair labour practices, i.e., the interference with or domination of trade unions by employers or interference, discrimination and coercion in trade union activity. The conditions which must be observed prior to strike and lockout action are provided for in the Act. Industrial inquiry commissions may be appointed to investigate industrial matters or disputes.

The Minister of Labour is charged with the administration of the Act, and is directly responsible for the provisions affecting the appointment of conciliation officers, conciliation boards, industrial inquiry commissions, consent to prosecute, and complaints that the Act has been violated or that a party has failed to bargain in good faith.

The Canada Labour Relations Board administers provisions concerning the certification of bargaining agents, the writing of a procedure into a collective agreement for the final settlement of disputes concerning the meaning or violation of such agreement, and the investigation of complaints made to the Minister that a party has failed to bargain collectively.

Detailed statistics concerning activities under the Act may be found in the Annual Report of the Department of Labour. In brief, from Sept. 1, 1948, to Mar. 31, 1957, the Canada Labour Relations Board received 754 applications for certification, 461 of which were granted, 140 rejected, 139 withdrawn and 14 were pending at the end of the period. Of the 428 industrial disputes dealt with under the conciliation provisions of the Act, 358 were settled by conciliation officers and conciliation boards, 41 were not settled, 11 lapsed and 18 were pending at Mar. 31, 1957.

Labour-Management Co-operation Service.—During World War II, production committees based on the principle of joint consultation between labour and management were established in many vital industries. Since 1947 the establishment of labour-management production committees in industry has been encouraged and assisted by the Labour-Management Co-operation Service, a section of the Industrial Relations Branch of the Department of Labour. The number of active committees has grown from 526 in 1947 to approximately 1,100. Their activities are directed towards such objects as better understanding between management and labour, improved production efficiency, improved quality, reduction of waste, accident prevention, good housekeeping, and reduction of absenteeism.

Reinstatement in Civil Employment Act.—This Act provides for the reinstatement in their civil employment of discharged members of the Armed Forces and other designated persons. It was passed in 1946 and is administered by the Department of Labour through the Unemployment Insurance Commission. In 1954, by the Veterans Benefit Act, the Act was made applicable to certain ex-members of the Special Force and to former members of the regular Forces who have served for a period not exceeding three years since July 5, 1950, and prior to July 1, 1955.

Canada Fair Employment Practices Act.—This Act, which came into effect on July 1, 1953, prohibits discrimination in employment based on race, colour, religion or national origin. It applies only to industries within federal jurisdiction—those covered by the Industrial Relations and Disputes Investigation Act (see p. 745). This law prohibits acts of discrimination by employers; discrimination by trade unions in regard to membership or employment; the use by employers of employment agencies which practise discrimination; and of advertisements or inquiries in connection with employment which express, directly or indirectly, any limitation, specification or preference as to race, colour, religion or national origin.

Female Employees Equal Pay Act.—This Act came into effect on Oct. 1, 1956, and applies to employers and employees engaged in works, undertakings or businesses coming within federal jurisdiction. The Act, in its principal provision, prohibits an employer from employing a female for any work at a rate of pay that is less than the rate at which a male is employed by that employer for identical or substantially identical work.

Subsection 2.—Provincial Labour Legislation

Labour legislation in Canada is mainly a matter for the provincial legislatures as it usually deals with the contract of service between employer and employee, the contract between members of a trade union which forms the basis of the union, or regulates conditions in local work places. The right to contract is a civil right and the British North America Act, which distributes legislative powers between the Parliament of Canada and the provincial legislatures, grants to the provinces power to enact laws in relation to "civil rights" and, with certain exceptions, "local works and undertakings". In each province a Department of Labour (in Alberta, the Department of Industries and Labour) is charged with the administration of labour laws. Legislation for the protection of miners is administered by departments dealing with mines.

Factory legislation and shops legislation in several of the provinces prohibit child labour, regulate the hours of work of women and young persons and provide for safety and health. Most provinces have minimum wage legislation and maximum hours laws, legislation to ensure freedom of association, to promote collective bargaining and to provide for the settlement of industrial disputes, and legislation dealing with apprenticeship and the licensing of certain classes of workmen. The Industrial Standards Acts of Nova Scotia, New Brunswick, Ontario and Saskatchewan, the Labour Act of Alberta and the Fair Wage Act of Manitoba enable the wages and hours of work agreed upon at a conference of representatives of employers and employees in designated trades to be made the minimum standards throughout the trade concerned. The Quebec Collective Agreement Act permits collective agreements between employers and trade unions to be made binding on all in the industry. The workmen's compensation laws in each province are administered by a board appointed by the Lieutenant-Governor in Council.

Provincial labour legislation enacted in 1956 and 1957 is outlined in the following paragraphs.

Newfoundland.—In 1956 the *Workmen's Compensation Act* was amended to increase the monthly allowances payable to the widows and children of deceased workmen. The allowance to a widow was increased from \$50 to \$60, to a child with one parent from \$12 to \$20, and to an orphan child from \$20 to \$30. The amendment also raised the rate of earnings used in determining compensation in disability cases from 66½ to 75 p.c.

Prince Edward Island.—The *Workmen's Compensation Act* was amended in 1957 to raise the monthly payments to a child living with a parent from \$15 to \$20, and to an orphan child from \$25 to \$30. A further change enables the Board to pay compensation in respect of a child who is over 16 and under 18 years of age at the time of his father's death, in order to assist in furthering his education. Previously, the Board had authority to continue payments for such purpose only if the child had been receiving compensation before the age of 16.

A 1957 amendment to the *Trade Union Act* made the Act apply to employers who regularly employ more than six employees. Formerly, only those with more than 15 employees were covered.

Nova Scotia.—A new *Elevators and Lifts Act* passed in 1956 provides for the licensing and regulation of all passenger and freight elevators and other types of lifts. The Act requires the approval of the Department of Labour before any new installations may be made or any major alterations undertaken. Every elevator or lift must be inspected annually and the Act provides for the appointment of a Chief Elevator Inspector and

an inspection staff who are all required to hold certificates of competency. No elevator or lift may be operated unless it is licensed by the Chief Inspector. Should an accident occur in an elevator or lift, the owner must notify the Chief Inspector within 24 hours. Safety standards with respect to construction, installation and maintenance of elevators and lifts may be set by regulation. The Act is in force from Jan. 1, 1958.

A new *Equal Pay Act*, which was passed in 1956 and became effective on Jan. 1, 1957, forbids an employer to pay a female employee at a lower rate than a male employee for the same work in the same establishment. A difference in the rate of pay between a female and a male based on any factor other than sex does not constitute a failure to comply with the Act. An individual claiming to be aggrieved may make a complaint in writing to a designated officer of the Department of Labour who will inquire into the matter and try to effect a settlement. If he is unsuccessful, the Minister of Labour may appoint a commission to investigate and make recommendations, and may issue an order requiring the commission's recommendations to be carried out. Failure to comply with the order is an offence punishable by a fine on summary conviction.

The *Workmen's Compensation Act* was amended in 1956 to raise the rate of compensation for disability from 66 $\frac{2}{3}$ to 70 p.c. of average earnings. By a further amendment, the minimum amount payable in cases of permanent total disability was raised from \$85 to \$100 a month.

The *Trade Union Act* was amended in 1957 authorizing the Labour Relations Board to refer to the Supreme Court for an opinion on any question which, in the Board's opinion, is a question of law.

An amendment made in 1956 to the *Engine Operators Act* permits a certificate to be issued to a qualified candidate who has been in Canada for at least one year and who has filed a declaration of intention to become a Canadian citizen. Formerly, applicants for certificates were required to be British subjects.

New Brunswick.—A *Fair Employment Practices Act*, passed in 1956 and becoming effective June 1, 1956, forbids discrimination by employers with regard to employment and by trade unions with regard to membership on grounds of race, national origin, colour or religion. Application forms, advertisements, and written and oral inquiries in connection with employment which express any limitation or preference as to race, colour, national origin or religion are prohibited. The Act applies to all employers with five or more employees, and also binds the Crown in right of the Province.

A 1956 amendment to the *Labour Relations Act* brings certain police officers under the Act, and provides that a municipal corporation or police commission which fixes their conditions of employment will be deemed to be an employer under the Act.

By a 1957 amendment, to the *Workmen's Compensation Act*, effective Jan. 1, 1958, the ceiling on earnings was raised to \$4,000 from \$3,000.

Quebec.—The *Workmen's Compensation Act* was amended in 1956 to raise the proportion of earnings on which compensation is based from 70 to 75 p.c., and to reduce the waiting period from seven to five days.

Ontario.—The *Police Act*, which provides for collective bargaining and the settlement of disputes between members of the police force and the employing municipal council, was amended in 1956 to specify time limits for the different steps in bargaining and settlement of disputes by arbitration, and provides that every agreement must contain a provision for the settlement of disputes arising out of an agreement or award. Amendments to the *Fire Departments Act* also set new time limits for collective bargaining and arbitration. A new Section setting out the procedure to be followed when a fire-fighter is dismissed provides that, if the fire-fighter so requests in writing, he must within seven days of receipt of a notice of discharge be given a hearing before the municipal council or a committee of the council.

By a 1956 amendment to the *Workmen's Compensation Act*, effective Jan. 1, 1957, the maximum annual earnings on which compensation is computed were increased from \$4,000 to \$5,000.

The *Department of Labour Act* was amended in 1957 to give the Lieutenant-Governor in Council authority to make regulations for the protection of the health and safety of persons who may be exposed to the effects of ionizing radiation in industry and commerce.

The section of the *Factory, Shop and Office Building Act* that requires the submission of building plans for any proposed factory and for any shop, bakeshop, restaurant or office building of more than two storeys in height was amended in 1957 to require departmental approval of plans of such buildings of less than two storeys, if they are to cover an area of 5,000 or more sq. feet. Certain regulatory measures authorized for factories were extended to shops, bakeshops, restaurants, offices and office buildings, including authorization of the inspector to direct the employer or owner to take remedial measures where he considers any "place, matter or thing" is a source of danger to the health and safety of employees and the public.

Manitoba.—The *Equal Pay Act, 1956*, effective July 1, 1956, forbids an employer to pay male employees on a scale different from that on which wages are paid to female employees working in the same establishment, if the work required of, and done by, employees of each sex is identical or substantially identical. The Act covers employers bound by collective agreements, and prohibits an employer, a trade union or a society acting as bargaining agent for employees from negotiating or entering into a collective agreement providing for scales of wages forbidden by the Act.

The *Labour Relations Act* was amended in 1956 to remove from the application of the Act school teachers who hold certificates or permits under the Education Department Act and who are empowered by a board of school trustees under a written contract in the prescribed form. Provisions were added to the *Public Schools Act*, effective July 1, 1956, setting out a procedure for collective bargaining between school trustees and teachers' associations and for the settlement of disputes by arbitration. Teachers are forbidden to strike.

The *Workmen's Compensation Act* was amended, effective July 1, 1956, to raise from \$3,000 to \$3,500 the maximum amount of average earnings that may be taken into account in computing compensation. The proportion of earnings on which compensation may be based was raised from 70 to 75 p.c. In death cases, the special immediate payment to the widow was increased from \$100 to \$200.

The *Vacations with Pay Act* was amended in 1956 to provide that when a business is sold or merged with another, an employee who continues in the employment of the new owner is, for the purpose of computing the vacation with pay to which he is entitled, to be considered to have been continuously employed by the one employer.

A 1956 amendment to the *Fair Employment Practices Act* forbids the use of discriminatory application forms, unless the request for an answer to the questions concerning such matters as race, national origin, colour or religion, is based upon a *bona fide* occupational qualification. The amendment also provides that the Crown is bound by the Act.

The *Employment Standards Act, 1957*, is a codification and revision of three of the Province's principal labour laws—the *Hours and Conditions of Work Act*, the *Minimum Wage Act* and the *Factories Act*. The new Act consists of four parts: Part I—General, providing for the keeping of records by employers, regulation of home work, control of employment of children, the making of regulations respecting the control of dangerous employments and other matters, special permits and exemptions and enforcement; Part II—Minimum Wages; Part III—Hours and Conditions of Work; Part IV—Safety of Employees in Factories. No significant changes were made in the provisions governing hours of work or in those providing for the fixing of a minimum wage rate. Some important changes were made, however, in the sections dealing with employment of children, 'take-home work' and safety in factories.

Under the general provisions of the Act, the employment of a child under 15 years of age is forbidden, except with a written permit from the Minister, and no child may be employed in such a manner that his safety, health or moral well-being may be adversely affected. Employment in factories of both boys and girls under 15 years of age is prohibited (formerly the prohibition applied to boys under 14 and to girls under 15). Birth certificates are required for the employment of adolescents under 18 years, instead of under 16 as previously. Further, the Lieutenant-Governor in Council may prohibit the employment of boys or girls under 18 (formerly, girls under 18, boys under 16) in a factory in which the work is considered dangerous, unwholesome or unhealthy.

More supervision of 'take-home work' is provided for. An employer intending to give out home work must first register with the Minister, and the Minister, in his absolute discretion, may impose "conditions and limitations" upon the work in so far as remuneration is concerned.

Regulations may be made by the Lieutenant-Governor in Council governing industries that utilize radioactive substances. Factories with fewer than three employees are no longer exempt from the provisions of the Act. There is now a much stronger provision regarding the cleaning of moving machinery. Cleaning or servicing of machinery involving danger to the employee doing the work is prohibited while the machinery is in motion, except with the Minister's written authorization.

Basement factories may be established only with the written permission of the Minister, who may specify the minimum standard of lighting or ventilation, or both, to be provided and lay down other conditions of operation.

The *Steam and Pressure Plants Act* was amended in 1957 to extend its coverage to plants subject to a pressure of 15 lb. p.s.i. or over (rather than 50 lb. p.s.i. as before). Any refrigeration plant or compressed gas plant subject to a pressure of 15 lb. p.s.i. or over must be operated by an engineer holding a certificate of qualification under the *Operating Engineers and Firemen Act*.

Saskatchewan.—The *Workmen's Compensation (Accident Fund) Act* was amended in 1956 to raise from \$4,000 to \$5,000 the maximum earnings that may be taken into account in computing compensation. The immediate lump sum payable to the widow on the death of a workman is increased from \$100 to \$250. Amendments passed in 1957 increased the monthly allowance to a child in the care of a parent from \$25 to \$35 and that payable to an orphan from \$35 to \$45.

The *Fair Employment Practices Act, 1956*, replaces provisions of the *Bill of Rights Act* dealing with discrimination in employment and prohibits discrimination in regard to employment and membership in trade unions by reason of religion, colour, ethnic or national origin. An employer is forbidden to use an employment agency that discriminates on these grounds. The Act adopts the administrative and enforcement procedure which is common to other provincial fair employment practices legislation.

Amendments to the *Minimum Wage Act* in 1956 add to the powers of the Minimum Wage Board in determining minimum wages and certain other working conditions. A 1957 amendment provides that, in recommending the minimum wage to be fixed, the Board may take into account the amount which it deems fair and reasonable, having regard to the wages that it considers to be generally prevailing in the class of employees affected, and the amount which it deems adequate to furnish the necessary cost of living to the employees concerned.

A new *Wages Recovery Act* was passed in 1957 providing for the collection of unpaid wages by making a complaint before a justice of the peace or a police magistrate and authorizing Department of Labour inspectors to collect wages due to an employee. The amendments raise from \$400 to \$500 the maximum amount of wages a magistrate may order an employer to pay.

The *Apprenticeship and Tradesmen's Qualification Act* was amended in 1957 to require an employer carrying on business in a designated trade to keep specified records of employees in his employ. Powers of inspection were also provided for in the amendment.

A new section was added in 1957 to the *Annual Holidays Act* to provide that, where a business is sold, leased, transferred or otherwise disposed of, the service of the employees concerned will, for the purpose of qualifying for vacations, be deemed to be continuous and uninterrupted.

Alberta.—Amendments were made to the *Workmen's Compensation Act* in 1956 incorporating recommendations of a special legislative committee set up in 1955 to investigate the operation of the Act. The monthly compensation payable to a widow was increased from \$50 to \$60. Provision was also made for an increase from \$100 to \$150 in the immediate lump sum payment to the widow on the death of the workman. The monthly payment to dependent children was raised from \$25 to \$30. The rates of all widows' and children's pensions were raised. Compensation is now payable to a child who is over 16 years of age at the time of his father's death, to permit the continuance of his education to age 18. In disability cases the maximum earnings on which compensation may be based are raised from \$3,000 to \$4,000.

Amendments were made to the *Police Act* in 1956 to provide for an appointment of a conciliation commissioner in disputes regarding the remuneration and working conditions of municipal police forces before a dispute goes to arbitration.

Extensive amendments were made in 1957 to the *Alberta Labour Act* which covers hours of work, minimum wages, holidays with pay, industrial standards and labour relations. A new section was added (Part VI) under which an employer is forbidden to pay a female employee at any lesser rate than the rate at which he pays a male employee for identical or substantially identical work. A difference in rates of pay based on any factor other than sex is permissible, however. An employer and employees bound by a collective agreement in force on July 1, 1957, are exempted from the application of the legislation for the duration of the agreement or one year, whichever is shorter. The provisions regarding equal pay are to be administered by the Board of Industrial Relations.

The weekly rest provisions were amended to ensure that an employee is given a day off "immediately following each period of not more than six consecutive days of work". The former wording requiring an employer to grant a day of rest "in each period of seven consecutive days" allowed the employer to give an employee the first day of one week and the last day of the following week.

Every employer who employs eleven or more employees must now give to each employee a written statement for each pay period, showing hours worked, wages at overtime rate, any bonus or living allowance paid and deductions. The employer of fewer than eleven employees must furnish such a statement on request. Under the former provisions an employer was obliged to furnish pay statements only upon request.

British Columbia.—A new *Annual Holidays Act* passed in 1956, effective from July 1, 1957, provides for an annual holiday of two weeks instead of one week and provides a corresponding increase in the rate of vacation pay from 2 p.c. to 4 p.c. of annual earnings.

A new *Fair Employment Practices Act* passed in 1956 forbids employers to refuse to employ, to discharge, or to discriminate against any person because of his race, colour, religion, nationality, ancestry or place of origin. Trade unions are also prohibited from excluding from membership, from expelling or suspending a member or person for any of these reasons. Expressions of discrimination in employment application forms, in advertisements or written or oral inquiries with respect to prospective employment are also banned. The Act does not apply to employers with fewer than five employees, to domestic servants in private homes or to non-profit charitable, philanthropic, educational, fraternal, religious or social organizations. Institutions under the Public Schools Act are covered.

A new *Blind Workmen's Compensation Act* was passed in 1957 providing special protection to employers of blind workmen. Under the Act, where total compensation to a blind workman exceeds \$50, the Workmen's Compensation Board is to be reimbursed from the Consolidated Revenue Fund for the amount in excess of \$50.

Regulation of Wages and Hours of Labour under Industrial Standards Legislation and the Quebec Collective Agreement Act.—The Industrial Standards Acts of Nova Scotia, New Brunswick, Ontario and Saskatchewan and the Labour Act of Alberta provide that wages and hours agreed upon at a conference of representatives of employers and employees, called by the Minister of Labour or his representative, may be made legally binding by Order in Council on the industry in the area concerned. The Nova Scotia Act applies only to construction work at Halifax, Dartmouth and Sydney.

In *Nova Scotia*, 13 schedules of hours and wages for individual building trades were in force during the year ended Mar. 31, 1956, including 12 renewals of previous schedules.

In *New Brunswick*, four schedules for individual building trades were in force during the year ended Mar. 31, 1956.

In *Quebec*, under the Collective Agreement Act, hours and wages and also apprenticeship, vacations with pay and family allowances provisions, established by a collective agreement voluntarily entered into by employers and unions or groups of employees, may be made legally binding by Order in Council on all employers and employees in the industry in the district covered by the agreement, if the parties are sufficiently representative of the industry. At Mar. 31, 1956, 99 agreements covering 225,526 workers and 24,224 employers had been generalized to apply either throughout the Province or to a certain district. The agreements in force throughout the Province apply to the following industries: building materials, the manufacture of women's cloaks and suits, dresses, millinery ladies' handbags, men's and boys' clothing, men's and boys' hats and caps, men's and boys' shirts, fine gloves and work gloves, shoes, furniture, paint, corrugated and uncorrugated paper boxes, the tanning industry and the elevator construction industry. Other agreements concern industries in particular cities or parts of the Province including all building trades and printing trades in large urban centres and many rural districts.

In *Ontario*, there were 149 wages and hours schedules in force at Mar. 31, 1956. Throughout the Province, schedules were in effect for brewery workers, cloakmakers, the men's and boys' clothing industry, men's and boys' hats and caps, the millinery industry and the hard furniture industry. In the construction industry one schedule covered several building trades in one city, and 69 schedules, each for a single trade in a single locality, covered one or more trades in 30 localities. Schedules were in effect in other industries also but only for certain zones: bakers, soft furniture manufacturing, taxi drivers, coal hoisting, and the coal industry, each had schedules in one zone, retail gasoline service in four, taxi drivers in one, and barbers had schedules in 64 zones.

In *Manitoba*, Part II of the Fair Wage Act provides similar machinery for fixing wages and hours in any business, trade or undertaking except agriculture. Orders in Council under this legislation have been passed fixing wages and hours in the barbering and hairdressing trades.

In *Saskatchewan*, 19 schedules were in effect at Mar. 31, 1956. The schedule for barbers covered the whole Province; others applied to bakers and bakery salesmen, carpenters, electrical workers, painters, shoe repairers and beauty culture operators in one or more areas.

In *Alberta*, 26 schedules were in effect during 1956. These governed, in one or more areas, bakers and bakery salesmen, certain individual building trades, dairy employees, garage and service-station workers, radio service, laundry and dry-cleaning employees and barbers.

Regulation of Hours and Annual Holidays.—Five provinces—Ontario, Manitoba, Saskatchewan, Alberta and British Columbia—have statutes that either place absolute limits on working hours or require time and one-half the regular rate to be paid if work is continued after specified limits. There is, in addition, an Act of limited application in Quebec. In the provinces that have no special hours-of-work legislation, the only statutory regulation of hours, apart from that described on p. 752 under the Industrial Standards Acts and the Quebec Collective Agreement Act, is that imposed by factories Acts, mines Acts and, in Newfoundland, an Act governing shops. In New Brunswick and Quebec the limits imposed by the factories Acts apply only to women and boys under 18 years of age. Several minimum wage Acts give authority for the regulation of hours as well as of wages.

In Ontario there is a maximum eight-hour day and 48-hour week with certain exceptions. In Alberta the maximum daily and weekly hours in the cities of Calgary, Edmonton, Lethbridge and Medicine Hat are eight and 44; in the remainder of the Province they are eight and 48. In British Columbia hours are limited to eight in a day and 44 in a week. In these three provinces the Acts apply to most workers except farm labourers and domestic servants. In Saskatchewan the Act requires time and one-half to be paid for work after eight hours daily and 44 hours weekly and applies to workers in all industries except agriculture and domestic service. A Manitoba Act covering most industrial workers in the Province requires time and one-half to be paid for work done after eight hours in a day and after 48 hours in a week for men and 44 hours for women. In all provinces that have Acts regulating hours, longer hours may be worked in an emergency or by permission of the administrative authority.

Six provinces—Quebec, Ontario, Manitoba, Saskatchewan, Alberta and British Columbia—have legislation in effect providing for annual holidays with pay for workers in most industries, and New Brunswick has legislation requiring annual holidays in the mining and construction industries. In all these provinces except British Columbia and Saskatchewan, workers are entitled to a one-week holiday with pay after a year of employment. A two-week holiday is given in British Columbia and Saskatchewan after a year of employment, in Alberta after two years and in Manitoba after three. A worker employed for less than a year is entitled, in Quebec, to a half-day for each month of employment and, in Saskatchewan, to one day for each month. Coal miners in Alberta are entitled to a one-day holiday with pay for every 20 days worked in a month but not more than two weeks in a year.

Farm workers are excluded from the holiday provisions in all provinces, and domestic servants in all but Manitoba and Saskatchewan. In addition, Quebec exempts forest operations workers, public corporation employees, salesmen, janitors and watchmen, and certain part-time workers. Ontario exempts professional workers, salesmen, and funeral directors and embalmers. Manitoba and Saskatchewan exempt ranch and market garden employees, and British Columbia exempts professional workers and horticultural workers.

Minimum Wage Regulations.—In Nova Scotia the minimum wage law applies only to women. In Ontario, though the Act applies to both sexes, Orders apply only to women. In Newfoundland, New Brunswick, Manitoba, Alberta and British Columbia there are separate Orders for men and women but in British Columbia most Orders cover both sexes. In Quebec and Saskatchewan all Orders apply to both sexes.

Table 1 shows the minimum rates in effect in September 1957 for several classes of establishment in the principal cities. In Newfoundland, New Brunswick, British Columbia and, with respect to men in Manitoba, the rates set are for the entire Province. Elsewhere rates vary according to zone.

1.—Minimum Wage Rates for Experienced Workers, in Certain Cities, by Sex, September 1957

| Item and Type of Establishment | St. John's, Nfld. | Halifax, N.S. | Saint John, N.B. | Montreal, Que. | Toronto, Ont. | Winnipeg, Man. | Regina, Sask. | Edmonton, Alta. | Vancouver, B.C. |
|--|-------------------|---------------|------------------|--------------------|---------------|----------------|---------------|-----------------|--------------------|
| Maximum hours per week to which the rates apply..... | 48 | 48 | 48 | 48-60 ¹ | 48 | 44 | 44 | 44 | 44 |
| | cts. per hour | \$ per week | cts. per hour | cts. per hour | \$ per week | cts. per hour | \$ per week | \$ per week | cts. per hour |
| Factories.....M. | 50 | — | 65 ² | 60 | — | 60 | 30 | 30 | 75 |
| F. | 35 | 16.80 | 50 | 60 | 22 | 58 | 30 | 28 | 60 |
| Laundries, etc.....M. | 50 | — | — | 60 | — | 60 | 30 | 30 | 40 |
| F. | 35 | 16.80 | 50 | 60 | 22 | 58 | 30 | 28 | 40 |
| Shops.....M. | 50 | — | — | 60 | — | 60 | 30 | 30 | 65 |
| F. | 35 | 16.80 | 50 | 60 | 22 | 58 | 30 | 28 | 65 |
| Hotels, restaurants, etc. M. | 50 | — | — | 55 ³ | — | 60 | 30 | 30 | 65 |
| F. | 35 | 16.80 | 45 | 55 | 22 | 58 | 30 | 28 | 65 |
| Beauty parlours.....M. | 50 | — | — | 60 | — | 60 | 30 | 30 | 25.00 ⁴ |
| F. | 35 | 16.80 | 50 | 60 | 22 | 58 | 30 | 28 | 25.00 ⁴ |
| Theatres and amusement places M. | 50 | — | — | 60 | — | 60 | 30 | 30 | 18.00 ⁴ |
| F. | 35 | 16.80 | 50 | 60 | 22 | 58 | 30 | 28 | 18.00 ⁴ |
| Offices.....M. | 50 | — | — | 60 | — | 60 | 30 | 30 | 75 |
| F. | 35 | 16.80 | 50 | 60 | 22 | 58 | 30 | 28 | 75 |

¹ Rates apply to 48 or 54 hours in factories; 48 hours in offices; 54 hours in laundries, shops, beauty parlours and theatres; 60 hours in hotels. ² Applies only to canning or processing of fish, vegetables or fruit. ³ Chauffeurs, watchmen, stationary engineers and firemen 60 cents; bell boys 35 cents. ⁴ Dollars per week.

Section 2.—The Labour Force*

The current pace of economic activity in Canada necessitates constant planning and study. To the labour leader, the business man, the social administrator and the legislator, this pace requires a continuous process of plan-revision. To provide up-to-date and reliable information concerning the Canadian labour force, a current and periodic analysis of the state of employment in Canada was organized. A labour force survey, on a sample basis, was conducted in the autumn of 1945 and quarterly surveys were carried on until November 1952, when the survey was placed on a monthly basis. A multi-stage area sample was used involving the selection of progressively smaller sample areas and ultimately of households. Random methods of choice were used at every stage of selection so that all members of the population had an equal chance of inclusion. The present sample covers over 35,000 households in more than 115 different areas of Canada; these include 34 cities having a population of 30,000 or over in 1951 as well as some smaller urban centres and various rural areas. The estimates of the labour force are restricted to the civilian labour force; net strength of the Armed Forces is obtainable directly from official sources. Inmates of institutions and Indians living on reserves are excluded.

The labour force surveys provide a classification of persons 14 years of age or over on the basis of their activity during the week that precedes the beginning of the survey, and who had jobs or were seeking work during the survey week. These divisions of the labour force are defined as follows:—

- (1) **Persons with Jobs.**—This category comprises: (a) *persons at work*—those who did any work for pay or profit or who did unpaid work which contributed to the running of a farm or business operated by a relative; and (b) *persons with jobs but not at work*—those who had jobs but did not work because of illness, bad weather, vacation, industrial dispute or temporary layoff with definite instructions to return to work within 30 days of the time of being laid off. Persons who worked part of the survey week and also looked for work are classed as “persons with jobs”.

* Details of the labour force, as defined in the 1951 Census, relative to age, sex and occupation groups, are given in the 1954 Year Book, pp. 692-704.

- (2) **Persons without Jobs and Seeking Work.**—This classification includes those persons who were looking for work during the survey week and did not work. Persons who were temporarily away from their jobs during the whole of the survey week seeking other work were considered as without jobs and were included in this category. In addition to those who were actively looking for work, this classification includes persons who would have looked for work, except that they were temporarily ill, were on indefinite or prolonged layoff, or believed that no work was available.

Information relating to the population 14 years of age or over not in the labour force is also collected. Persons not in the labour force include such groups as those going to school or keeping house in their own homes, persons who are permanently unable to work because of old age or other reason, and persons who are retired or voluntarily idle. Persons such as housewives, students and others who worked part time are classed as "persons with jobs" or, if looking for work, they are classed as "persons without jobs and seeking work".

The estimates derived from the labour force surveys are subject to sampling error. In general the percentage of error tends to decrease as the size of the estimate increases. The chances are about 19 out of 20 that the difference between the estimate and the figure which would have been obtained from a complete count is less than that shown below.

| <i>Size of Estimate</i> | <i>Sampling Variability</i> |
|-------------------------|-----------------------------|
| 50,000..... | 8,000 |
| 100,000..... | 11,000 |
| 500,000..... | 25,000 |
| 1,000,000..... | 33,000 |
| 5,000,000..... | 54,000 |

Data in Table 2 for June 1, 1946 to 1957, are compiled from labour force surveys conducted in late May or early June of those years. The information for years before 1946 is taken from estimates based upon 1931 and 1941 Census material rearranged according to the definitional system used in the labour force surveys, the revised census data being linked with the June 1946 survey on the basis of monthly and annual employment and unemployment figures.

2.—Estimates of the Civilian Labour Force and its Main Components, June 1, 1931-57

NOTE.—Figures do not include persons in institutions and Indians on reserves. Figures for 1931-45 inclusive have been revised since the publication of the 1956 Year Book.

| Year | Civilian Population (14 years of age or over) | Civilian Labour Force (14 years of age or over) | | | | | | | Persons not in the Labour Force (14 years of age or over) |
|-----------|--|---|--------------------|---------------------------|---------------|-------------------|---------------------------------------|--------------------|--|
| | | Persons with Jobs | | | | | Persons without Jobs and Seeking Work | Total Labour Force | |
| | | Non-agriculture | | | Agri- culture | Total (with jobs) | | | |
| | | Paid Workers | Other ¹ | Total (non-agri- culture) | | | | | |
| | '000 | '000 | '000 | '000 | '000 | '000 | '000 | '000 | '000 |
| 1931..... | 7,116 | 2,028 | 426 | 2,454 | 1,216 | 3,670 | 481 | 4,151 | 2,965 |
| 1932..... | 7,240 | 1,848 | 385 | 2,233 | 1,237 | 3,470 | 741 | 4,211 | 3,029 |
| 1933..... | 7,366 | 1,717 | 475 | 2,192 | 1,257 | 3,449 | 826 | 4,275 | 3,091 |
| 1934..... | 7,491 | 1,931 | 499 | 2,430 | 1,277 | 3,707 | 631 | 4,338 | 3,153 |
| 1935..... | 7,621 | 1,941 | 538 | 2,479 | 1,298 | 3,777 | 625 | 4,402 | 3,219 |
| 1936..... | 7,748 | 1,994 | 582 | 2,576 | 1,319 | 3,895 | 571 | 4,466 | 3,282 |
| 1937..... | 7,870 | 2,108 | 668 | 2,776 | 1,339 | 4,115 | 411 | 4,526 | 3,344 |
| 1938..... | 7,997 | 2,075 | 632 | 2,707 | 1,359 | 4,066 | 522 | 4,588 | 3,409 |
| 1939..... | 8,122 | 2,079 | 662 | 2,741 | 1,379 | 4,120 | 529 | 4,649 | 3,473 |
| 1940..... | 8,140 | 2,197 | 643 | 2,840 | 1,344 | 4,184 | 423 | 4,607 | 3,533 |

¹ Employers, 'own account' and unpaid family workers.

**2.—Estimates of the Civilian Labour Force and its Main Components,
June 1, 1931-57—concluded**

| Year | Civilian Popu- lation (14 years of age or over) | Civilian Labour Force (14 years of age or over) | | | | | | | Persons not in the Labour Force (14 years of age or over) |
|-------------------------|--|---|--------------------|---------------------------------|------------------|-------------------------|---|--------------------------|---|
| | | Persons With Jobs | | | | | Persons Without Jobs and Seeking Work | Total Labour Force | |
| | | Non-agriculture | | | Agri- culture | Total (with jobs) | | | |
| | | Paid Workers | Other ¹ | Total (non-agri- culture) | | | | | |
| | '000 | '000 | '000 | '000 | '000 | '000 | '000 | '000 | |
| 1941..... | 8,056 | 2,566 | 481 | 3,047 | 1,224 | 4,271 | 195 | 4,466 | 3,590 |
| 1942..... | 8,085 | 2,801 | 494 | 3,295 | 1,139 | 4,434 | 135 | 4,569 | 3,516 |
| 1943..... | 7,871 | 2,934 | 439 | 3,373 | 1,118 | 4,491 | 76 | 4,567 | 3,304 |
| 1944..... | 7,920 | 2,976 | 373 | 3,349 | 1,136 | 4,485 | 63 | 4,548 | 3,372 |
| 1945..... | 8,048 | 2,937 | 366 | 3,303 | 1,144 | 4,447 | 73 | 4,520 | 3,528 |
| 1946..... | 8,768 | 2,986 | 481 | 3,467 | 1,271 | 4,738 | 124 | 4,862 | 3,906 |
| 1947..... | 8,993 | 3,139 | 551 | 3,690 | 1,172 | 4,862 | 92 | 4,954 | 4,039 |
| 1948..... | 9,123 | 3,225 | 543 | 3,768 | 1,186 | 4,954 | 81 | 5,035 | 4,088 |
| 1949..... | 9,254 | 3,326 | 551 | 3,877 | 1,114 | 4,991 | 101 | 5,092 | 4,162 |
| 1950 ² | 9,610 | 3,429 | 561 | 3,990 | 1,066 | 5,056 | 142 | 5,198 | 4,412 |
| 1951..... | 9,696 | 3,625 | 539 | 4,164 | 991 | 5,155 | 81 | 5,236 | 4,460 |
| 1952..... | 9,919 | 3,786 | 516 | 4,302 | 927 | 5,229 | 106 | 5,335 | 4,584 |
| 1953..... | 10,114 | 3,837 | 531 | 4,368 | 897 | 5,265 | 115 | 5,380 | 4,734 |
| 1954..... | 10,274 | 3,776 | 530 | 4,306 | 889 | 5,195 | 218 | 5,413 | 4,861 |
| 1955..... | 10,506 | 3,935 | 516 | 4,451 | 873 | 5,324 | 213 | 5,537 | 4,969 |
| 1956..... | 10,680 | 4,156 | 526 | 4,682 | 817 | 5,499 | 165 | 5,664 | 5,016 |
| 1957..... | 10,968 | 4,371 | 543 | 4,914 | 773 | 5,687 | 194 | 5,881 | 5,087 |

¹ Employers, 'own-account' and unpaid family workers.

² Newfoundland included from 1950.

Main Characteristics of the Civilian Labour Force, 1946-57.—Since the end of World War II, the civilian population 14 years of age or over (exclusive of persons in institutions and Indians on reserves) has increased by over one-quarter—to an estimated 10,968,000 persons at the beginning of June 1957 from an estimated 8,768,000 persons at the same time of year in 1946. In the same period, the labour force increased by 21 p.c. from 4,862,000 to 5,881,000. The labour force constituted 53.6 p.c. of the population 14 years of age or over in 1957 compared with 55.5 p.c. in 1946. The lower percentage in 1957 is largely accounted for by the fact that the population includes a greater proportion of persons over 65 years of age whose rate of participation in the labour force is much lower than that of the adult population as a whole, and by the fact that young persons are entering the labour force at a higher average age. These factors more than offset the increased proportion of married women with jobs outside the home.

The number of persons with jobs increased by 20 p.c. from 4,738,000 to 5,687,000 over the eleven years. While there has been a continuing decrease in the numbers employed in agriculture, which showed a drop of 39 p.c. in the period, total employment in non-agricultural industries increased 42 p.c. from 3,467,000 at June 1, 1946, to 4,914,000 in 1957. The increase in paid workers in non-agricultural industries was still higher and amounted to 46 p.c. The number of persons without jobs and seeking work fluctuated over the period; at the beginning of June 1957, the proportion of the labour force in this category was 3.3 p.c. and at June 1, 1946, it was 2.6 p.c.

Persons not in the labour force increased by 30 p.c. in the eleven years from 3,906,000 to 5,087,000. The increases were most marked for students and retired persons and were relatively smaller for persons keeping house in their own homes.

Section 3.—Employment, Payrolls and Hours*

Subsection 1.—Historical Commentary

The Dominion Bureau of Statistics has collected monthly data for many years on the numbers of men and women on the staffs of establishments (usually having 15 employees or over) in the main non-agricultural fields, both by industrial classifications and geographical distribution. Motives of economy in time and money exclude the smaller firms. Until 1941, a count of employees at work was made by firms for the last working day in each month. Since early in 1941, when collection of payroll statistics was undertaken, establishments have reported for their last pay periods in each month. Employees, by definition, include wage-earner and salaried staffs, salesmen and commission workers, but exclude proprietors, firm members and directors. The industrial classification includes nine main divisions: forestry—mainly logging; mining; manufacturing; construction; transportation, storage and communication; public utilities; trade; finance, insurance and real estate; and service. All components of these industries are covered by questionnaires except the service classification, in which only hotels, restaurants, laundries and dry-cleaning plants, recreation, business services and a few other groups are surveyed. Such important services as government administration, fishing, agriculture, education, health, domestic and personal service are not covered in the monthly series. Data are published for 32 metropolitan areas and the provinces. Since 1951, the grouping of data has conformed to the Canadian Standard Industrial Classification; statistics for a considerable number of earlier years have been converted to this basis.

From information available in the 1951 Census, it is estimated that 78 p.c. of paid workers at work in the reported industries are covered in the monthly surveys. If all paid workers were taken into account, including those in the non-reported fields and those in small establishments in the industries surveyed, the coverage would approximate 59 p.c. In the broad industrial divisions, estimates of coverage range from a high of 96 p.c. for mining to a low of 40 p.c. for services.

Collected information on labour was expanded in 1941 to include current earnings of the reported employees, and records of weekly payrolls and average weekly wages and salaries were subsequently carried back, on an annual basis, to 1939. Since the autumn of 1944, statistics have also been collected on the hours and earnings of wage-earners for whom establishments can furnish a record of hours actually worked. Monthly statistics on the sex distribution of employees were first published in early 1946, superseding the annual and semi-annual series of immediately preceding years. With the entry of Newfoundland into Confederation, separate data for that Province were recorded from 1950 to 1953; from then on, the statistics have been incorporated into Canada-wide series. The index reference period has been changed several times throughout the years, and the index numbers are now computed on the 1949 average as 100. The data currently compiled for manufacturing have been supplemented for a considerable number of years by a detailed annual inquiry into the earnings and hours of work of men and women wage-earners and salaried employees. More information on this survey will be found in Subsection 3, pp. 766-774.

Employment in the surveyed industries in 1956 was just about double the 1939 figure. The index was computed at 60.1 for 1939 and, reflecting steady population growth and greater industrialization, climbed to 120.1 in 1956. In the same period the annual average of weekly wages and salaries for the reporting industries showed uninterrupted advances: the industrial composite of average weekly earnings was \$23.44 in 1939 and increased to \$64.18 in 1956, a gain of 174 p.c. In manufacturing, earnings increased to a rather greater extent—from \$22.79 in 1939 to \$66.47 in 1956, or 192 p.c., reflecting a pronounced expansion in employment in the heavy manufacturing industries in which earnings were above the general average.

* Prepared in the Employment Section, Labour and Prices Division, Dominion Bureau of Statistics.

Since the end of 1944, a monthly statistical series has been maintained for manufacturing and a few other industries, showing average hours and average hourly and weekly wages for wage-earners for whom employers keep records of hours actually worked. In 1945, the annual average of hourly earnings in factories was 69.4 cents, and each succeeding year experienced a step-up until a high of 151.5 cents was reached in 1956. Other industries in which payment by the hour is typical followed the same upward trend. For example, the average in construction advanced from 73.5 cents an hour in 1945 to a new peak of 163.9 cents in 1956. Increases in hourly earnings were attended by decreases in the average hours worked in most reporting industries. In manufacturing, the average weekly hours fell from 44.3 in 1945 to 41.1 in 1956.

3.—Annual Average Index Numbers of Employment by Industrial Group 1947-56 and Monthly Indexes 1955 and 1956

NOTE.—These indexes are calculated as at the first day of each month, on the base 1949=100.

| Year | Forestry (chiefly log- ging) | Mining | Manu- factur- ing | Con- struc- tion | Trans- porta- tion, Storage and Com- muni- cation | Public Utility Oper- ation | Trade | Finance, Insur- ance, Real Estate | Serv- ice ¹ | Indus- trial Com- posite |
|---|---------------------------------------|--------|-------------------------|------------------------|--|-------------------------------------|-------|---|---------------------------|-----------------------------------|
| Averages— | | | | | | | | | | |
| 1947..... | 149.6 | 88.6 | 97.2 | 85.6 | 95.4 | 76.7 | 90.2 | 91.5 | 94.6 | 95.7 |
| 1948..... | 138.4 | 97.2 | 100.1 | 95.4 | 99.0 | 89.0 | 96.3 | 96.0 | 99.1 | 99.7 |
| 1949..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| 1950..... | 100.8 | 105.5 | 100.9 | 102.4 | 99.9 | 101.3 | 103.2 | 105.4 | 101.0 | 101.5 |
| 1951..... | 138.6 | 110.6 | 108.0 | 110.2 | 106.1 | 103.4 | 107.4 | 115.2 | 103.1 | 108.8 |
| 1952..... | 123.9 | 116.8 | 109.3 | 122.5 | 110.9 | 107.5 | 109.9 | 121.9 | 106.6 | 111.6 |
| 1953..... | 100.0 | 111.7 | 113.3 | 118.6 | 111.3 | 112.1 | 113.2 | 122.4 | 108.7 | 113.4 |
| 1954..... | 95.1 | 109.8 | 107.7 | 110.7 | 109.0 | 115.7 | 114.6 | 127.4 | 111.4 | 109.9 |
| 1955..... | 101.8 | 113.4 | 109.3 | 114.9 | 110.5 | 118.9 | 118.1 | 132.0 | 114.5 | 112.5 |
| 1956..... | 113.3 | 122.0 | 115.4 | 130.8 | 117.7 | 125.7 | 125.5 | 136.4 | 124.4 | 120.1 |
| 1955— | | | | | | | | | | |
| Jan. 1..... | 122.2 | 110.8 | 103.2 | 104.2 | 107.7 | 116.5 | 121.9 | 130.9 | 109.3 | 109.1 |
| Feb. 1..... | 106.6 | 110.2 | 103.6 | 91.1 | 104.3 | 113.2 | 112.7 | 131.2 | 108.6 | 105.8 |
| Mar. 1..... | 92.5 | 110.0 | 105.7 | 87.0 | 103.6 | 113.4 | 111.7 | 131.2 | 108.0 | 105.6 |
| Apr. 1..... | 68.3 | 110.0 | 106.5 | 88.3 | 104.3 | 113.4 | 112.8 | 131.6 | 108.6 | 105.7 |
| May 1..... | 54.0 | 109.0 | 107.3 | 99.2 | 107.7 | 114.8 | 114.8 | 131.7 | 111.0 | 107.4 |
| June 1..... | 81.5 | 111.9 | 109.3 | 115.2 | 111.4 | 119.1 | 116.9 | 132.3 | 113.7 | 111.7 |
| July 1..... | 101.3 | 115.5 | 111.6 | 125.8 | 113.9 | 123.3 | 118.1 | 132.7 | 118.6 | 115.3 |
| Aug. 1..... | 98.3 | 116.5 | 111.4 | 132.2 | 115.9 | 124.5 | 117.7 | 133.6 | 121.2 | 116.1 |
| Sept. 1..... | 104.5 | 117.4 | 114.0 | 138.9 | 116.0 | 125.8 | 118.2 | 133.8 | 121.6 | 118.3 |
| Oct. 1..... | 119.7 | 116.5 | 113.4 | 138.2 | 115.1 | 121.9 | 121.5 | 131.7 | 119.6 | 118.5 |
| Nov. 1..... | 133.8 | 116.6 | 112.8 | 134.0 | 113.6 | 120.5 | 123.5 | 131.9 | 117.9 | 118.2 |
| Dec. 1..... | 139.5 | 116.5 | 112.3 | 125.2 | 112.7 | 120.1 | 127.8 | 132.0 | 116.3 | 117.9 |
| 1956— | | | | | | | | | | |
| Jan. 1..... | 134.4 | 114.4 | 109.8 | 105.1 | 111.3 | 119.8 | 129.0 | 132.0 | 115.4 | 114.6 |
| Feb. 1..... | 115.6 | 114.4 | 110.2 | 102.9 | 109.4 | 119.3 | 119.1 | 132.3 | 115.2 | 112.3 |
| Mar. 1..... | 109.5 | 115.9 | 112.3 | 101.9 | 110.0 | 118.6 | 118.7 | 133.9 | 115.9 | 113.2 |
| Apr. 1..... | 84.2 | 117.3 | 113.4 | 101.4 | 111.2 | 118.4 | 121.1 | 134.6 | 117.8 | 113.5 |
| May 1..... | 66.6 | 116.9 | 114.1 | 115.0 | 114.3 | 121.4 | 122.0 | 135.1 | 120.1 | 115.2 |
| June 1..... | 95.2 | 123.0 | 115.4 | 133.1 | 118.5 | 125.2 | 124.0 | 135.6 | 124.7 | 119.7 |
| July 1..... | 112.2 | 126.1 | 118.0 | 151.5 | 121.3 | 128.8 | 126.0 | 136.8 | 130.9 | 124.2 |
| Aug. 1..... | 114.0 | 128.2 | 117.9 | 156.3 | 124.9 | 132.0 | 125.2 | 137.5 | 134.4 | 125.4 |
| Sept. 1..... | 116.8 | 128.6 | 118.0 | 156.6 | 124.7 | 134.4 | 125.8 | 137.7 | 134.4 | 125.7 |
| Oct. 1..... | 127.2 | 126.5 | 118.6 | 152.2 | 123.2 | 131.3 | 129.4 | 140.5 | 129.0 | 125.9 |
| Nov. 1..... | 137.9 | 126.9 | 118.6 | 151.5 | 121.9 | 129.9 | 131.1 | 140.4 | 127.8 | 126.2 |
| Dec. 1..... | 145.8 | 125.4 | 118.0 | 142.5 | 121.5 | 129.2 | 135.0 | 140.5 | 126.8 | 125.7 |
| Percentage distribution in 1956 ² | 2.9 | 4.0 | 44.2 | 9.7 | 13.4 | 1.9 | 14.9 | 4.7 | 4.3 | 100.0 |

¹ Consists mainly of hotels, restaurants, laundries, dry-cleaning establishments and business and recreation service. ² Newfoundland included from 1949. ³ The proportion of employees reported in the industries to the total reported by all employers making returns in Canada (12-month average).

Subsection 2.—Employment and Earnings in 1956

During 1956, exceptional economic advances were made in Canada. Expenditure by consumers on goods and services rose 8 p.c. and exports were up 12 p.c. over 1955. The developments were reflected in higher levels of employment, payrolls and per capita earnings. The annual average employment index (1949 = 100) reached a new high at 120.1, up 6.8 p.c. from 1955, and considerably above the previous peak of 113.4 set in 1953. The rate of increase from the previous year had been surpassed only in 1947 and 1951 during the postwar period. All major industrial divisions surveyed monthly, except logging, shared in the advance, employment rising to new peaks. In forestry, however, an 11-p.c. increase over 1955 did not suffice to bring the 1956 index up to the all-time high in 1947. The 13.8-p.c. increase for the construction industry was the greatest gain of the year. In other industries, the increases ranged from a high of 8.6 p.c. for services to a low of 3.3 p.c. for the finance, insurance and real estate group.

Manufacturing, which reports approximately 45 p.c. of all employees covered in the monthly surveys, rose by 5.6 p.c. over 1955. The expansion in the durable goods segment of this industry continued at a faster rate than in the non-durable goods group, the employment increases over 1955 amounting to 7.8 p.c. and 3.4 p.c., respectively. Iron and steel products recorded a 9.6-p.c. jump in staffs over the preceding year. There was a rise of at least 5 p.c. in each of the individual industries except agricultural implements, in which case a lack of export and domestic orders resulted in an employment decrease of 10.2 p.c. The most notable increases in the durable goods branch were in fabricated and structural steel, primary iron and steel, iron castings and machinery manufacturing, ranging from 12 to 19 p.c. Increased activity in motor vehicle and railroad and rolling-stock equipment was largely responsible for a considerable rise in transportation equipment. There were also noteworthy gains in electrical apparatus and supplies, non-metallic minerals, and aluminum products groups. Declines in employment continued in fur goods and hats and caps, while staffs in synthetic textiles and silk, tobacco and tobacco products, grain mill products and canned and cured fish were also smaller than in 1955.

Employment rose in many of the non-manufacturing industries surveyed, the most notable exceptions being gold and coal mining and urban and interurban bus transportation; in these, a downward trend had been noted for some years. Relatively, the greatest increases in staffs in 1956 were shown in oil and natural gas production, radio and television broadcasting and in building construction, in all of which employment was more than 20 p.c. above the previous year.

The annual average number of women reported in the surveyed establishments in 1956 was higher by 5.9 p.c. and that of men by 7.1 p.c. For manufacturing only, the increases were 5.3 and 5.8 p.c. respectively. The highest proportion of women in the nine major industries, according to the Oct. 1 survey, was in the finance, insurance and real estate division, in which 493 of each 1,000 employees reported. The service and trade classifications followed with figures of 474 and 366, respectively. The composite figure for Canada was 222. In manufacturing, which employs the largest number of women in the industries surveyed, 228 per 1,000 employees reported were of that sex. Provincially, Ontario continued to have the highest ratio of employed women—almost one-quarter of the total reported in that Province. This is partly accounted for by the fact that there is a great concentration of manufacturing in Ontario. In the metropolitan areas, the proportions of women ranged from a high of 315 in Kitchener, Ont., to a low of 53 per 1,000 in Sydney, N.S.

The expansion of employment during 1956 was widespread, all provinces showing gains of at least 2.7 p.c. over the preceding year. The largest increase was in Alberta, where reported staffs rose 11.1 p.c. as a result of increased activity particularly in construction, iron and steel products and oil, petroleum and coal products. British Columbia followed with a gain of 8.6 p.c. In that Province, construction showed the greatest upswing, but advances in iron and steel products and non-ferrous metal products were quite substantial. In both Alberta and British Columbia, employment in the coal-mining industry continued to decline, and lessened activity in gold mining in British Columbia

dropped the employment index in that group by 16.4 p.c. from 1955. Although industrial employment generally was up 6.8 p.c. in Ontario and Quebec, the manufacturing indexes in those areas did not climb in the same proportions. The gains were 5.9 p.c. in the former and 5.1 p.c. in the latter. Employment in practically all branches of industry in Ontario rose, the exceptions being gold mining and the manufacture of agricultural implements and women's clothing. Metal mining, other than gold, reached an all-time high with the index standing at 203.0, 18.6 p.c. above 1955. Employment in the iron castings and primary iron and steel groups of the iron and steel industry and in construction rose by about 14 p.c. in 1956. In Quebec, the working force reported in forestry operations increased by 18 p.c. from 1955. Staffs in the aircraft industry were up 14.3 p.c. in 1956 following a drop in 1955 caused in part by labour-management disputes. Greatly heightened activity was also recorded in construction and in the electrical apparatus and supplies group of manufacturing. In the Atlantic Provinces, construction operations expanded considerably, and logging in New Brunswick reported an employment gain of more than 25 p.c.

The annual average index of industrial employment rose in most of the 32 metropolitan areas for which monthly data are compiled. The exceptions were Saint John, N.B., where a slight decrease was recorded, and Drummondville, Que., where there was no general change as compared with 1955. The increases in the other centres ranged up to 13.9 p.c. for Sault Ste. Marie, Ont. The larger areas of Montreal and Toronto recorded rises of 6.2 and 5.4 p.c. respectively. Higher levels of employment in construction was a main factor in both cities and, in addition, activity increased substantially in the electrical apparatus field in Montreal. Employment in many centres, including the two just mentioned, reached new all-time high levels in 1956.

The 1956 payroll index stood at 180.5, a new high. The advance over 1955 was 12.7 p.c., the highest rate of annual increase since the 1950-51 period, when it amounted to 18.5 p.c. Expanding employment and upward revisions in wage and salary scales contributed to the rise. All major industrial groups surveyed registered substantial gains, with the construction payroll index advancing 26 p.c. Forestry, service and mining also advanced above the national average. Payrolls in manufacturing generally were 10.8 p.c. over 1955; those in the durable goods component rose to a greater extent than the non-durables, the increases being 13.0 p.c. and 8.3 p.c. respectively.

Provincially, Alberta reported the most marked increase in industrial payrolls—19.5 p.c. above 1955. British Columbia was not too far behind, recording a 15.5-p.c. rise, while wages and salaries in Ontario and Quebec reached levels approximately 12 p.c. above the preceding year. All metropolitan areas for which statistics are published showed increases in this comparison, the gains ranging from 2.2 p.c. in Saint John, N.B., to 28.8 p.c. in Sault Ste. Marie, Ont. Increased employment and higher pay rates in the surveyed industries were the main factors.

The annual average of weekly wages and salaries continued the uninterrupted upward movement in effect since 1939, the earliest year for which data are available, rising by \$3.31 from 1955 to \$64.18, or by 5.4 p.c. This increase exceeded those recorded in the two immediately preceding years by about 2 p.c. As usual, British Columbia reported the highest average, provincially, with weekly earnings of \$69.91. The greatest rate of increase over the preceding year, however, was in Alberta. The trend of weekly wages and salaries was upward in all metropolitan areas except Windsor, Ont., where a decrease of 1.5 p.c. was caused mainly by short time in the automobile industry. Industrially, there were also general increases in average earnings. Mining, which reported the highest wages and salaries in the industries surveyed, showed a figure of \$77.59, which was 21 p.c. above the industrial composite. The greatest rise over 1955 was in construction, where an advance of 10.2 p.c. brought the 1956 average earnings to \$68.26.

Monthly data on man-hours and hourly earnings are collected from employers who keep a record of hours worked by their wage-earners. The industries for which such statistics are available tend to be those in which wage-earners are generally rated by the hour. In manufacturing, the annual average of hourly earnings increased by 4.8 p.c. to

151.5 cents in 1956. This rise was largely attributed to higher wage rates in many establishments and industries, with higher levels of employment in some industries paying above the general average. Labour-management disputes caused smaller losses in working time than in the two previous years and consequently had less effect upon the general average of earnings. The length of the average work week increased negligibly during 1956.

Average weekly wages were up 5.1 p.c. to \$62.27 in the twelve months. The two major components of manufacturing showed similar increases, amounting to 4.8 p.c. in heavy goods manufacturing and 4.7 p.c. in non-durables. The greater advance in manufacturing as a whole reflected relatively larger increases in employment in the former than the latter group. The most significant gains in hourly earnings in the heavy manufacturing industries were reported in primary iron and steel, hardware and tools, and motor vehicle parts and accessories. Almost all individual industries showed higher weekly wages, an exception being motor vehicles, in which wages declined because of a shorter work week. A longer work week and upward revisions of wage rates raised the average in steel mills by 10 p.c. over 1955, the largest increase reported in the durable manufactured goods section.

In the non-durables group, gains of 5 p.c. or more were reported in canned fruit and vegetables, bread and bakery, rubber, paper, chemical and petroleum, and coal products. Substantial losses in employment, hours and earnings were recorded in the textile industry during the summer months, especially in the cotton goods group, partly as a result of strikes. Average weekly wages rose in all light manufacturing industries listed, while the average hours worked were about the same as in 1955. The clothing group as a whole and several of its components, however, showed an average increase of 0.6 hours per week. A similar reduction in the acids, alkalies and salts group resulted chiefly from a shorter standard work week.

In mining, the average hourly earnings rose by 6.4 p.c. to 171.4 cents in 1956, a new high. The largest gains over 1955 were in metal mining and oil and natural gas extraction. In the former, wage-rate increases and a shorter standard work week with the same take-home pay in some mines accounted for part of the increase, although the lay-off of workers from mines paying below the general average was also a factor. Considerable advances in employment in the oil group were reported for higher-paid workers, while pay rates also rose in some cases.

Average hours in mining as a whole dropped by 0.3 per week in 1956 because of a shorter standard work week in metal mining. Other branches reported small gains, the most important of which was coal mining in Alberta. Construction was much more active during the year so that average hourly earnings and weekly wages rose significantly, and the average work week lengthened by 1.2 hours. Moderate increases in average earnings were reported in the electric and motor transportation group, and in those sections of the service industry for which data are available. Average hourly and weekly earnings in manufacturing increased in all provinces and in most of the metropolitan areas in 1956 and established new records.

4.—Annual Average Index Numbers of Employment by Industrial Division and Group 1939 and 1952-56

NOTE.—These monthly indexes are calculated as at the first day of the month, on the base 1949=100.

| Industry | 1939 | 1952 | 1953 | 1954 | 1955 | 1956 |
|--|-------------|--------------|--------------|--------------|--------------|--------------|
| Forestry (chiefly logging)..... | 59.3 | 123.9 | 100.0 | 95.1 | 101.8 | 113.3 |
| Mining..... | 93.7 | 116.8 | 111.7 | 109.8 | 113.4 | 122.0 |
| Metal mining..... | 100.8 | 118.3 | 112.0 | 111.3 | 116.8 | 126.0 |
| Gold..... | 132.5 | 94.7 | 83.6 | 80.6 | 81.2 | 76.5 |
| Other metal..... | 66.9 | 140.7 | 137.6 | 139.9 | 150.1 | 171.9 |
| Fuels..... | 90.8 | 109.5 | 105.8 | 101.4 | 102.7 | 109.8 |
| Coal..... | 103.3 | 91.2 | 83.8 | 76.8 | 70.3 | 67.6 |
| Oil and natural gas..... | 42.5 | 171.8 | 177.1 | 183.0 | 209.4 | 253.8 |
| Non-metal..... | 72.6 | 132.9 | 130.7 | 129.0 | 131.3 | 141.3 |

4.—Annual Average Index Numbers of Employment by Industrial Division and Group 1939 and 1952-56—continued

| Industry | 1939 | 1952 | 1953 | 1954 | 1955 | 1956 |
|--|-------------|--------------|--------------|--------------|--------------|--------------|
| Manufacturing | 56.3 | 109.3 | 113.3 | 107.7 | 109.3 | 115.4 |
| Foods and beverages | 63.3 | 105.1 | 104.6 | 105.6 | 106.8 | 109.4 |
| Meat products | 60.8 | 111.7 | 113.8 | 113.8 | 117.8 | 123.6 |
| Dairy products | 61.3 | 102.4 | 103.6 | 107.4 | 106.9 | 109.0 |
| Canned and cured fish | 72.3 | 110.1 | 94.1 | 107.2 | 114.6 | 114.2 |
| Canned and preserved fruits and vegetables | 65.6 | 107.3 | 103.9 | 104.9 | 106.6 | 109.8 |
| Grain mill products | 62.0 | 109.0 | 102.7 | 104.7 | 105.1 | 103.1 |
| Bread and other bakery products | 68.8 | 104.7 | 106.0 | 103.6 | 107.0 | 108.8 |
| Biscuits and crackers | | 89.0 | 97.9 | 95.8 | 93.9 | 93.9 |
| Distilled and malt liquors | 48.7 | 100.7 | 104.2 | 106.4 | 105.4 | 108.7 |
| Other beverages | 56.0 | 107.7 | 109.4 | 110.3 | 112.7 | 120.4 |
| Confectionery | | 89.0 | 90.1 | 87.6 | 83.1 | 87.1 |
| Tobacco and tobacco products | 87.4 | 85.8 | 86.6 | 87.0 | 89.7 | 88.3 |
| Rubber products | 69.3 | 102.1 | 109.2 | 102.2 | 108.8 | 114.1 |
| Leather products | 81.0 | 92.8 | 96.6 | 88.4 | 86.4 | 89.6 |
| Boots and shoes (except rubber) | 81.4 | 94.6 | 97.5 | 91.2 | 89.2 | 92.6 |
| Other leather products | 80.5 | 89.8 | 95.2 | 83.1 | 81.3 | 84.2 |
| Textile products (except clothing) | 67.9 | 93.1 | 94.5 | 80.6 | 84.8 | 86.8 |
| Cotton yarn and broad woven goods | 86.4 | 94.8 | 95.3 | 79.7 | 85.8 | 88.2 |
| Woolen goods | 66.8 | 84.2 | 85.6 | 67.6 | 71.4 | 74.3 |
| Synthetic textiles and silk | 49.0 | 93.1 | 95.6 | 82.3 | 87.1 | 85.8 |
| Clothing (textile and fur) | 71.3 | 100.0 | 101.7 | 91.9 | 91.5 | 94.2 |
| Men's clothing | 69.3 | 104.1 | 106.8 | 95.8 | 95.7 | 100.8 |
| Women's clothing | 65.0 | 105.4 | 100.5 | 94.8 | 92.4 | 92.9 |
| Knit goods | 82.5 | 87.1 | 91.4 | 80.4 | 79.9 | 81.8 |
| Fur goods | 63.2 | 88.0 | 91.5 | 76.6 | 75.2 | 69.5 |
| Hats and caps | 98.1 | 96.3 | 96.5 | 89.6 | 87.6 | 83.7 |
| Wood products | 60.7 | 101.5 | 105.5 | 100.8 | 106.7 | 110.4 |
| Saw and planing mills | 59.5 | 103.6 | 106.7 | 102.3 | 110.4 | 112.6 |
| Furniture | 61.3 | 101.3 | 106.9 | 102.8 | 105.4 | 111.5 |
| Other wood products | 64.6 | 93.7 | 98.2 | 90.5 | 92.3 | 98.4 |
| Paper products | 53.8 | 108.6 | 109.8 | 114.5 | 117.8 | 123.5 |
| Pulp and paper mills | 62.5 | 111.5 | 111.3 | 117.5 | 121.1 | 126.1 |
| Other paper products | 50.2 | 102.0 | 106.2 | 107.2 | 109.5 | 117.0 |
| Printing, publishing and allied trades | 66.1 | 104.3 | 106.8 | 109.7 | 111.7 | 114.9 |
| Iron and steel products | 45.6 | 113.0 | 111.8 | 100.5 | 102.0 | 111.8 |
| Agricultural implements | 28.7 | 105.5 | 83.8 | 65.1 | 66.6 | 59.8 |
| Boilers and plate work | 48.1 | 122.3 | 121.5 | 111.9 | 109.7 | 115.5 |
| Fabricated and structural steel | 39.1 | 131.5 | 137.1 | 127.5 | 127.5 | 151.4 |
| Hardware and tools | 50.5 | 105.1 | 108.7 | 100.9 | 101.8 | 107.7 |
| Heating and cooking appliances | 54.0 | 84.0 | 96.9 | 94.8 | 87.6 | 106.0 |
| Iron castings | 42.6 | 102.5 | 100.7 | 88.9 | 94.3 | 107.1 |
| Machinery manufacturing | 41.6 | 115.9 | 115.8 | 109.4 | 108.2 | 121.0 |
| Primary iron and steel | 54.1 | 123.9 | 119.3 | 98.9 | 107.2 | 122.4 |
| Sheet metal products | 49.6 | 105.3 | 110.3 | 106.1 | 106.3 | 113.1 |
| Wire and wire products | 68.8 | 103.4 | 100.2 | 96.8 | 101.2 | 115.6 |
| Transportation equipment | 45.9 | 136.7 | 153.0 | 136.3 | 130.4 | 140.0 |
| Aircraft and parts | 31.6 | 282.2 | 386.2 | 357.3 | 328.5 | 350.1 |
| Motor vehicles | 45.6 | 113.3 | 119.7 | 105.8 | 119.2 | 131.8 |
| Motor vehicle parts and accessories | 45.6 | 124.0 | 131.9 | 106.9 | 113.0 | 117.6 |
| Railroad and rolling-stock equipment | 56.9 | 111.0 | 110.3 | 95.2 | 83.3 | 92.8 |
| Shipbuilding and repairing | 28.9 | 150.8 | 173.5 | 161.2 | 138.6 | 147.8 |
| Non-ferrous metal products | 48.6 | 110.0 | 118.1 | 117.1 | 124.6 | 132.0 |
| Aluminum products | 23.3 | 117.0 | 126.9 | 119.6 | 126.6 | 137.7 |
| Brass and copper products | 48.9 | 101.2 | 108.7 | 103.9 | 105.7 | 112.4 |
| Smelting and refining | 59.8 | 126.3 | 129.6 | 133.2 | 147.5 | 155.7 |
| Electrical apparatus and supplies | 37.4 | 120.8 | 135.4 | 133.7 | 136.4 | 151.4 |
| Non-metallic mineral products | 46.2 | 110.5 | 113.5 | 114.8 | 122.4 | 133.7 |
| Clay products | 48.2 | 101.4 | 102.5 | 101.9 | 106.5 | 113.0 |
| Glass and glass products | 46.3 | 101.6 | 117.0 | 118.1 | 128.0 | 134.3 |
| Products of petroleum and coal | 65.6 | 119.1 | 119.4 | 120.8 | 125.0 | 132.9 |
| Chemical products | 47.6 | 113.9 | 116.9 | 120.9 | 121.9 | 127.3 |
| Medicinal and pharmaceutical preparations | 47.0 | 103.2 | 104.7 | 107.3 | 110.1 | 115.5 |
| Acids, alkalis and salts | 50.7 | 126.0 | 120.8 | 120.5 | 125.6 | 132.3 |
| Other chemical products | | 112.8 | 118.7 | 124.3 | 124.0 | 129.2 |
| Miscellaneous manufacturing industries | 50.2 | 97.9 | 107.1 | 105.3 | 102.5 | 108.3 |
| Construction | 62.0 | 122.5 | 118.6 | 110.7 | 114.9 | 130.8 |
| Building and structures | 29.3 | 127.1 | 128.2 | 115.8 | 117.4 | 138.7 |
| Highways, bridges and streets | 110.5 | 105.6 | 98.3 | 102.4 | 111.1 | 118.3 |
| Transportation, Storage and Communication | 59.8 | 110.9 | 111.3 | 109.0 | 110.5 | 117.7 |
| Transportation | 62.4 | 109.2 | 109.3 | 105.2 | 105.7 | 111.4 |
| Air transporting and airports | 18.5 | 126.1 | 138.9 | 153.9 | 169.4 | 183.7 |

4.—Annual Average Index Numbers of Employment by Industrial Division and Group
1939 and 1952-56—concluded

| Industry | 1939 | 1952 | 1953 | 1954 | 1955 | 1956 |
|--|------|-------|-------|-------|-------|-------|
| Transportation, Storage and Communication —concluded | | | | | | |
| Transportation—concluded | | | | | | |
| Railways..... | 65.9 | 110.6 | 110.3 | 103.9 | 103.3 | 108.6 |
| Maintenance of equipment..... | 55.1 | 120.6 | 120.7 | 111.4 | 107.3 | 111.0 |
| Maintenance of ways and structures..... | 69.9 | 106.2 | 102.2 | 91.8 | 91.6 | 100.7 |
| Transportation—railways..... | 66.5 | 108.9 | 110.1 | 105.9 | 105.9 | 110.3 |
| Telegraphs..... | 65.4 | 118.3 | 124.4 | 119.6 | 117.9 | 119.5 |
| Water transportation..... | 63.2 | 103.5 | 99.3 | 95.4 | 95.8 | 101.4 |
| Electric and motor transportation..... | | 103.6 | 107.1 | 109.9 | 112.4 | 118.4 |
| Urban and interurban transportation..... | 56.3 | 94.5 | 93.4 | 92.1 | 89.2 | 87.5 |
| Truck transportation..... | 54.1 | 133.5 | 136.8 | 142.5 | 155.5 | 173.6 |
| Storage..... | 73.9 | 111.4 | 112.2 | 108.6 | 107.6 | 115.6 |
| Grain elevators..... | 79.2 | 111.5 | 111.9 | 106.6 | 104.7 | 107.6 |
| Storage and warehouses..... | 55.2 | 107.0 | 112.4 | 114.9 | 116.8 | 139.6 |
| Communication..... | 41.2 | 118.9 | 121.4 | 129.0 | 136.9 | 151.4 |
| Radio broadcasting..... | | 129.6 | 138.0 | 171.7 | 212.5 | 261.5 |
| Telephone..... | 41.3 | 117.1 | 119.7 | 125.6 | 130.6 | 142.0 |
| Public Utility Operation Electric light and power..... | 54.9 | 107.5 | 112.1 | 115.7 | 118.9 | 125.7 |
| Other public utilities..... | 53.1 | 111.3 | 115.4 | 118.6 | 121.5 | 127.3 |
| | 70.0 | 80.6 | 87.0 | 98.4 | 104.9 | 117.2 |
| Trade Wholesale..... | 61.5 | 109.9 | 113.2 | 114.6 | 118.1 | 125.5 |
| Retail..... | 60.2 | 113.2 | 116.1 | 116.9 | 120.2 | 127.4 |
| | 62.3 | 107.9 | 111.8 | 113.4 | 117.1 | 124.6 |
| Finance, Insurance and Real Estate Banking, investment and loan..... | 67.8 | 121.9 | 122.4 | 127.4 | 132.0 | 136.4 |
| Insurance..... | 62.9 | 125.4 | 125.8 | 131.9 | 136.7 | 139.7 |
| | 75.7 | 115.7 | 116.2 | 119.7 | 123.6 | 128.7 |
| Service Hotels and restaurants..... | 56.8 | 106.6 | 108.7 | 111.4 | 114.5 | 124.4 |
| Laundries and dry-cleaning plants..... | 55.4 | 103.6 | 104.4 | 107.6 | 109.9 | 119.4 |
| Other service..... | 63.1 | 101.0 | 101.4 | 102.6 | 104.7 | 109.6 |
| | | 118.0 | 133.3 | 139.0 | 145.3 | 160.8 |
| Industrial Composite | 60.1 | 111.6 | 113.4 | 109.9 | 112.5 | 120.1 |

5.—Annual Average Index Numbers of Employment by Province 1947-56, and Monthly
Indexes 1955 and 1956

NOTE.—These indexes are calculated as at the first day of the month, on the base 1949=100.

| Year | Nfld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Canada ¹ |
|------------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|---------------------|
| Averages— | | | | | | | | | | | |
| 1947..... | .. | 93.3 | 92.1 | 104.3 | 97.8 | 94.7 | 93.6 | 97.2 | 88.1 | 97.1 | 95.7 |
| 1948..... | .. | 102.6 | 99.6 | 105.2 | 101.2 | 98.9 | 97.2 | 99.5 | 93.7 | 101.3 | 99.7 |
| 1949..... | .. | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| 1950..... | .. | 110.3 | 95.6 | 102.6 | 100.5 | 102.7 | 100.8 | 100.8 | 104.5 | 100.8 | 101.5 |
| 1951..... | 111.7 | 112.6 | 100.3 | 109.0 | 109.2 | 110.4 | 103.9 | 106.0 | 112.4 | 106.1 | 108.8 |
| 1952..... | 130.2 | 123.2 | 104.0 | 109.5 | 113.4 | 112.0 | 106.0 | 111.4 | 120.8 | 106.7 | 111.6 |
| 1953..... | 140.9 | 116.4 | 101.2 | 101.4 | 112.8 | 114.7 | 107.2 | 116.0 | 128.5 | 108.4 | 113.4 |
| 1954..... | 128.2 | 110.1 | 97.7 | 97.8 | 109.2 | 110.9 | 104.8 | 118.0 | 127.6 | 106.2 | 109.9 |
| 1955..... | 131.0 | 113.3 | 96.8 | 103.1 | 112.0 | 113.0 | 105.0 | 117.2 | 132.6 | 111.3 | 112.5 |
| 1956..... | 136.9 | 117.7 | 101.7 | 109.9 | 119.6 | 120.7 | 108.3 | 120.4 | 147.3 | 120.9 | 120.1 |
| 1955— | | | | | | | | | | | |
| Jan. 1..... | 123.5 | 103.2 | 96.8 | 102.9 | 109.7 | 109.2 | 103.5 | 115.8 | 128.5 | 103.9 | 109.1 |
| Feb. 1..... | 113.9 | 96.7 | 91.7 | 96.3 | 105.7 | 107.4 | 100.7 | 107.8 | 123.7 | 99.8 | 105.8 |
| Mar. 1..... | 110.3 | 101.4 | 91.4 | 96.2 | 104.6 | 108.2 | 98.8 | 106.7 | 121.4 | 101.0 | 105.6 |
| Apr. 1..... | 113.4 | 97.6 | 92.3 | 95.0 | 103.4 | 108.8 | 98.5 | 106.1 | 121.2 | 103.1 | 105.7 |
| May 1..... | 118.8 | 107.6 | 91.6 | 93.9 | 105.3 | 110.3 | 101.2 | 108.7 | 121.0 | 106.2 | 107.4 |
| June 1..... | 129.7 | 117.4 | 96.5 | 100.4 | 110.6 | 113.0 | 104.8 | 117.4 | 129.8 | 110.4 | 111.7 |
| July 1..... | 138.4 | 118.2 | 98.6 | 104.7 | 114.2 | 115.7 | 107.4 | 122.7 | 138.1 | 115.1 | 115.3 |
| Aug. 1..... | 143.6 | 119.3 | 98.7 | 106.5 | 115.0 | 115.3 | 108.6 | 125.7 | 143.0 | 118.0 | 116.1 |
| Sept. 1..... | 144.1 | 123.6 | 101.6 | 111.4 | 117.6 | 117.0 | 109.6 | 126.3 | 143.8 | 121.8 | 118.3 |
| Oct. 1..... | 147.5 | 124.2 | 103.2 | 110.7 | 118.8 | 117.1 | 109.7 | 123.9 | 142.7 | 120.4 | 118.5 |
| Nov. 1..... | 147.9 | 129.9 | 99.1 | 109.6 | 119.4 | 117.1 | 109.1 | 124.2 | 140.0 | 119.2 | 118.2 |
| Dec. 1..... | 140.9 | 120.9 | 100.5 | 110.2 | 119.7 | 117.1 | 108.5 | 121.6 | 137.5 | 116.6 | 117.9 |

¹ Exclusive of Newfoundland prior to 1951.

5.—Annual Average Index Numbers of Employment by Province 1947-56, and Monthly Indexes 1955 and 1956—concluded

| Year | Nfld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Canada ¹ |
|--|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|---------------------|
| 1956— | | | | | | | | | | | |
| Jan. 1..... | 125.1 | 113.4 | 99.5 | 107.4 | 115.6 | 115.3 | 105.2 | 113.3 | 133.6 | 111.4 | 114.6 |
| Feb. 1..... | 122.7 | 108.4 | 96.9 | 108.2 | 112.5 | 113.5 | 103.2 | 107.9 | 132.2 | 109.1 | 112.3 |
| Mar. 1..... | 119.5 | 125.7 | 100.4 | 105.4 | 112.1 | 115.5 | 102.8 | 107.1 | 132.0 | 110.9 | 113.2 |
| Apr. 1..... | 117.7 | 105.7 | 95.2 | 102.0 | 111.4 | 116.7 | 102.9 | 108.3 | 134.4 | 113.2 | 113.5 |
| May 1..... | 119.4 | 102.3 | 93.7 | 99.0 | 113.3 | 118.3 | 103.8 | 111.9 | 136.7 | 117.5 | 115.2 |
| June 1..... | 133.5 | 111.9 | 101.7 | 107.5 | 117.4 | 121.2 | 107.1 | 122.4 | 148.5 | 122.1 | 119.7 |
| July 1..... | 147.2 | 118.9 | 105.1 | 115.8 | 124.3 | 123.7 | 110.7 | 127.6 | 155.9 | 125.1 | 124.2 |
| Aug. 1..... | 153.8 | 122.6 | 105.9 | 116.5 | 124.2 | 124.1 | 113.0 | 130.7 | 162.7 | 129.0 | 125.4 |
| Sept. 1..... | 156.1 | 127.3 | 104.6 | 113.9 | 125.2 | 123.4 | 113.8 | 131.0 | 162.5 | 131.1 | 125.7 |
| Oct. 1..... | 154.6 | 127.3 | 104.6 | 113.9 | 126.1 | 124.7 | 113.0 | 129.7 | 158.3 | 130.0 | 125.9 |
| Nov. 1..... | 151.2 | 126.6 | 105.7 | 112.8 | 126.5 | 126.0 | 112.2 | 128.7 | 155.6 | 127.6 | 126.2 |
| Dec. 1..... | 142.5 | 122.2 | 104.7 | 114.1 | 127.0 | 126.0 | 111.5 | 126.6 | 154.7 | 124.0 | 125.7 |
| Percentage distribution in 1956 ² | 1.5 | 0.2 | 3.2 | 2.4 | 28.6 | 42.2 | 4.8 | 2.3 | 5.5 | 9.3 | 100.0 |

¹ Exclusive of Newfoundland prior to 1951.

² The proportion of employees reported in the provinces to the total reported by all employers making returns in Canada (12-month average).

6.—Annual Average Index Numbers of Employment by Metropolitan Area 1947-56, and Monthly Indexes 1955 and 1956

NOTE.—These indexes are calculated as at the first day of the month, on the base 1949=100.

| Year | Montreal | Quebec | Toronto | Ottawa-Hull | Hamilton | Windsor | Winnipeg | Vancouver |
|---|----------|--------|---------|-------------|----------|---------|----------|-----------|
| Averages— | | | | | | | | |
| 1947..... | 94.3 | 93.2 | 93.2 | 91.4 | 91.6 | 92.2 | 93.9 | 96.9 |
| 1948..... | 97.1 | 100.5 | 97.3 | 96.5 | 96.9 | 94.5 | 97.1 | 102.1 |
| 1949..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| 1950..... | 101.3 | 98.7 | 104.1 | 103.1 | 100.8 | 102.2 | 100.1 | 99.0 |
| 1951..... | 106.6 | 101.6 | 110.7 | 108.4 | 109.5 | 107.7 | 102.7 | 101.4 |
| 1952..... | 110.9 | 105.2 | 113.3 | 108.9 | 109.2 | 107.0 | 104.0 | 100.1 |
| 1953..... | 113.8 | 110.9 | 119.6 | 109.4 | 111.4 | 111.1 | 104.1 | 102.2 |
| 1954..... | 110.8 | 110.7 | 120.1 | 109.7 | 104.3 | 93.9 | 103.3 | 102.5 |
| 1955..... | 112.8 | 107.9 | 121.2 | 113.6 | 105.6 | 101.1 | 104.4 | 107.2 |
| 1956..... | 119.8 | 110.8 | 127.7 | 119.2 | 113.3 | 105.0 | 106.6 | 116.9 |
| 1955— | | | | | | | | |
| Jan. 1..... | 109.9 | 104.9 | 120.7 | 111.1 | 100.2 | 79.6 | 103.4 | 103.4 |
| Feb. 1..... | 107.1 | 102.0 | 118.2 | 109.4 | 99.3 | 81.2 | 100.8 | 100.0 |
| Mar. 1..... | 107.7 | 101.3 | 118.0 | 107.4 | 99.6 | 100.4 | 99.2 | 100.5 |
| Apr. 1..... | 108.4 | 102.8 | 118.4 | 108.5 | 101.0 | 103.7 | 99.2 | 102.1 |
| May 1..... | 110.7 | 106.1 | 119.5 | 110.3 | 102.3 | 105.5 | 102.5 | 104.2 |
| June 1..... | 113.0 | 107.5 | 120.7 | 113.9 | 104.9 | 107.4 | 104.3 | 106.4 |
| July 1..... | 114.2 | 108.9 | 121.6 | 115.7 | 107.4 | 110.5 | 105.7 | 109.5 |
| Aug. 1..... | 113.6 | 111.4 | 120.2 | 116.5 | 107.5 | 106.4 | 106.4 | 111.0 |
| Sept. 1..... | 115.8 | 112.5 | 122.3 | 117.1 | 110.3 | 92.5 | 107.2 | 113.6 |
| Oct. 1..... | 117.3 | 112.9 | 124.2 | 117.8 | 111.7 | 105.6 | 107.6 | 111.9 |
| Nov. 1..... | 117.7 | 112.3 | 124.6 | 117.5 | 111.0 | 109.7 | 108.4 | 112.1 |
| Dec. 1..... | 118.7 | 111.9 | 126.2 | 117.6 | 111.6 | 110.2 | 108.7 | 112.3 |
| 1956— | | | | | | | | |
| Jan. 1..... | 116.0 | 106.2 | 125.5 | 115.7 | 110.1 | 108.1 | 105.5 | 110.7 |
| Feb. 1..... | 114.2 | 103.7 | 123.2 | 112.7 | 109.1 | 105.6 | 103.0 | 108.4 |
| Mar. 1..... | 114.0 | 103.7 | 124.0 | 113.4 | 108.8 | 107.9 | 102.1 | 109.3 |
| Apr. 1..... | 115.3 | 104.0 | 125.1 | 114.5 | 110.0 | 109.2 | 102.3 | 111.8 |
| May 1..... | 117.7 | 107.9 | 125.9 | 116.0 | 112.6 | 109.9 | 103.6 | 114.6 |
| June 1..... | 119.5 | 108.6 | 127.3 | 119.5 | 114.7 | 106.7 | 105.4 | 117.5 |
| July 1..... | 121.2 | 114.8 | 129.2 | 122.1 | 116.3 | 107.9 | 108.3 | 119.2 |
| Aug. 1..... | 120.7 | 116.4 | 128.0 | 123.4 | 115.2 | 107.7 | 109.2 | 121.3 |
| Sept. 1..... | 122.7 | 116.1 | 129.3 | 123.3 | 114.7 | 87.1 | 109.5 | 123.5 |
| Oct. 1..... | 124.9 | 117.1 | 130.2 | 122.9 | 115.2 | 96.2 | 110.2 | 122.6 |
| Nov. 1..... | 125.1 | 115.9 | 132.0 | 123.5 | 116.6 | 105.9 | 110.1 | 122.4 |
| Dec. 1..... | 126.0 | 115.0 | 132.9 | 123.6 | 116.6 | 107.4 | 109.7 | 121.9 |
| Percentage distribution ¹ 1956..... | 14.9 | 1.5 | 14.9 | 1.8 | 3.0 | 1.7 | 3.2 | 4.2 |

¹ Proportion of employees reported in metropolitan areas to the total reported by all employers making returns in Canada (12-month average).

7.—Annual Index Numbers of Employment, Payrolls and Earnings together with Average Weekly Earnings, by Industry, Province and Metropolitan Area 1955 and 1956

| Industry, Province and Metropolitan Area | Index Numbers (1949=100) | | | | | | Average Weekly Earnings Reported | |
|--|--------------------------|--------------|---------------------------|--------------|-------------------------|--------------|----------------------------------|--------------|
| | Employment | | Aggregate Weekly Payrolls | | Average Weekly Earnings | | | |
| | 1955 | 1956 | 1955 | 1956 | 1955 | 1956 | 1955 | 1956 |
| Industry | | | | | | | \$ | \$ |
| Forestry (chiefly logging)..... | 101.8 | 113.3 | 153.9 | 185.3 | 148.5 | 160.1 | 60.31 | 65.04 |
| Mining..... | 113.4 | 122.0 | 161.8 | 184.3 | 142.3 | 150.7 | 73.25 | 77.59 |
| Manufacturing..... | 109.3 | 115.4 | 158.4 | 175.5 | 144.1 | 151.2 | 63.34 | 66.47 |
| Durable goods ¹ | 116.6 | 125.7 | 168.8 | 190.8 | 144.0 | 151.0 | 67.90 | 71.16 |
| Non-durable goods ¹ | 102.9 | 106.4 | 148.1 | 160.4 | 143.0 | 149.8 | 58.89 | 61.69 |
| Construction..... | 114.9 | 130.8 | 172.1 | 216.8 | 150.0 | 165.4 | 61.94 | 68.26 |
| Transportation, storage and communication..... | 110.5 | 117.7 | 148.3 | 164.4 | 133.1 | 138.4 | 64.39 | 66.99 |
| Public utility operation..... | 118.9 | 125.7 | 176.2 | 195.3 | 146.6 | 153.6 | 70.56 | 73.93 |
| Trade..... | 118.1 | 125.5 | 166.2 | 184.0 | 141.3 | 147.4 | 52.25 | 54.49 |
| Finance, insurance and real estate..... | 132.0 | 136.4 | 176.6 | 193.7 | 133.8 | 142.3 | 56.48 | 60.07 |
| Service ² | 114.5 | 124.4 | 159.6 | 182.3 | 144.5 | 152.4 | 40.54 | 42.74 |
| Totals | 112.5 | 120.1 | 160.2 | 180.5 | 141.7 | 149.4 | 60.87 | 64.18 |
| Province | | | | | | | | |
| Newfoundland..... | 131.0 | 136.9 | 189.1 | 209.4 | 144.2 | 152.3 | 54.08 | 57.14 |
| Prince Edward Island..... | 113.3 | 117.7 | 153.3 | 165.0 | 136.0 | 140.9 | 45.64 | 47.27 |
| Nova Scotia..... | 96.8 | 101.7 | 131.2 | 143.2 | 134.7 | 139.9 | 50.70 | 52.67 |
| New Brunswick..... | 103.1 | 109.9 | 141.5 | 159.5 | 136.3 | 143.9 | 51.91 | 54.81 |
| Quebec..... | 112.0 | 119.6 | 159.5 | 179.9 | 141.9 | 149.6 | 58.43 | 61.63 |
| Ontario..... | 113.0 | 120.7 | 162.1 | 181.9 | 143.0 | 150.2 | 63.43 | 66.61 |
| Manitoba..... | 105.0 | 108.3 | 143.6 | 154.7 | 136.2 | 142.2 | 58.14 | 60.69 |
| Saskatchewan..... | 117.2 | 120.4 | 164.2 | 178.8 | 139.5 | 147.6 | 57.88 | 61.26 |
| Alberta..... | 132.6 | 147.3 | 185.3 | 221.4 | 139.7 | 150.1 | 62.01 | 66.63 |
| British Columbia..... | 111.3 | 120.9 | 160.7 | 185.6 | 144.1 | 153.1 | 65.79 | 69.91 |
| Metropolitan Area | | | | | | | | |
| St. John's..... | 118.2 | 123.0 | 165.1 | 180.0 | 139.5 | 146.1 | 44.97 | 47.09 |
| Sydney..... | 90.2 | 90.8 | 117.8 | 122.9 | 130.7 | 135.7 | 61.36 | 63.72 |
| Halifax..... | 112.9 | 118.1 | 157.4 | 171.0 | 140.0 | 145.3 | 49.60 | 51.51 |
| Saint John..... | 101.4 | 101.2 | 139.2 | 142.2 | 137.7 | 140.7 | 49.35 | 50.43 |
| Quebec..... | 107.9 | 110.8 | 154.4 | 167.0 | 142.3 | 149.8 | 50.76 | 53.42 |
| Sherbrooke..... | 102.4 | 107.5 | 143.4 | 159.9 | 140.5 | 149.2 | 50.47 | 53.60 |
| Three Rivers..... | 104.3 | 117.9 | 146.9 | 172.4 | 138.5 | 143.7 | 57.76 | 59.92 |
| Drummondville..... | 75.4 | 75.4 | 103.3 | 106.7 | 136.8 | 141.4 | 53.16 | 54.95 |
| Montreal..... | 112.8 | 119.8 | 160.9 | 180.0 | 142.3 | 149.8 | 59.49 | 62.63 |
| Ottawa-Hull..... | 113.6 | 119.2 | 162.4 | 177.6 | 143.4 | 149.3 | 56.24 | 58.56 |
| Peterborough..... | 94.9 | 103.6 | 135.1 | 159.2 | 142.3 | 149.6 | 63.74 | 67.00 |
| Oshawa..... | 137.8 | 156.4 | 186.4 | 234.5 | 134.6 | 147.2 | 68.52 | 74.96 |
| Niagara Falls..... | 123.6 | 126.8 | 182.9 | 197.9 | 144.5 | 151.8 | 67.57 | 70.99 |
| St. Catharines..... | 112.5 | 122.9 | 162.0 | 186.8 | 143.1 | 150.8 | 70.71 | 74.51 |
| Toronto..... | 121.2 | 127.7 | 176.6 | 194.5 | 146.3 | 153.0 | 64.41 | 67.40 |
| Hamilton..... | 105.6 | 113.3 | 149.4 | 170.2 | 140.5 | 149.3 | 65.54 | 69.67 |
| Brantford..... | 84.3 | 88.6 | 115.4 | 125.1 | 137.1 | 141.4 | 59.91 | 61.78 |
| Galt..... | 98.2 | 108.7 | 138.7 | 161.8 | 141.1 | 148.6 | 55.48 | 58.40 |
| Kitchener..... | 105.1 | 112.3 | 153.0 | 169.1 | 145.8 | 150.7 | 59.24 | 61.25 |
| Sudbury..... | 130.9 | 137.2 | 183.9 | 201.7 | 140.4 | 146.6 | 75.11 | 78.46 |
| London..... | 111.4 | 116.9 | 160.3 | 176.6 | 143.0 | 149.9 | 58.28 | 61.11 |
| Sarnia..... | 120.3 | 134.4 | 185.3 | 221.1 | 153.7 | 163.8 | 74.71 | 79.61 |
| Windsor..... | 101.1 | 105.0 | 144.2 | 147.5 | 141.6 | 139.5 | 71.86 | 70.79 |
| Sault Ste. Marie..... | 112.8 | 128.5 | 156.9 | 184.0 | 137.2 | 144.0 | 60.60 | 79.83 |
| Fort William-Port Arthur..... | 107.5 | 112.3 | 149.7 | 165.5 | 137.2 | 154.0 | 72.32 | 65.95 |
| Winnipeg..... | 104.4 | 106.6 | 146.5 | 155.0 | 141.5 | 146.6 | 55.63 | 57.64 |
| Regina..... | 115.6 | 118.0 | 162.8 | 180.7 | 145.1 | 152.5 | 55.50 | 58.34 |
| Saskatoon..... | 118.4 | 119.8 | 172.8 | 181.4 | 145.5 | 151.2 | 54.46 | 56.59 |
| Edmonton..... | 154.3 | 173.6 | 224.6 | 268.5 | 145.9 | 154.8 | 59.23 | 62.83 |
| Calgary..... | 140.6 | 152.9 | 198.9 | 226.3 | 141.6 | 148.2 | 59.43 | 62.18 |
| Vancouver..... | 107.2 | 116.9 | 155.3 | 179.8 | 145.1 | 153.7 | 63.50 | 67.26 |
| Victoria..... | 115.6 | 119.9 | 165.3 | 177.1 | 142.3 | 147.0 | 59.51 | 61.47 |

¹ The durable goods group includes wood products, iron and steel products, transportation equipment, non-ferrous metal products, electrical apparatus and supplies, and non-metallic mineral products; the non-durable goods group includes all other manufacturing industries. ² Mainly hotels, restaurants, laundries, dry-cleaning establishments and business and recreation service.

8.—Annual Average Weekly Earnings by Industrial Group 1947-56, and Monthly Averages 1955 and 1956

| Year and Month | Forestry (chiefly logging) | Mining | Manu- factur- ing | Con- struc- tion | Trans- porta- tion, Storage and Communi- cation | Public Utility Opera- tion | Trade | Finance, Insur- ance, Real Estate | Serv- ice ¹ | Indus- trial Com- posite |
|----------------|----------------------------------|--------|-------------------------|------------------------|---|-------------------------------------|-------|---|---------------------------|-----------------------------------|
| Averages— | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| 1947..... | 35.42 | 43.03 | 36.34 | 34.85 | 41.23 | 41.05 | 31.29 | 38.34 | 23.48 | 36.19 |
| 1948..... | 39.11 | 48.77 | 40.87 | 37.99 | 45.51 | 45.16 | 34.38 | 40.08 | 25.87 | 40.06 |
| 1949..... | 40.62 | 51.49 | 43.97 | 41.28 | 48.39 | 48.14 | 36.97 | 42.22 | 28.05 | 42.96 |
| 1950..... | 42.01 | 53.95 | 46.21 | 43.27 | 49.15 | 51.14 | 38.81 | 43.90 | 29.50 | 44.84 |
| 1951..... | 48.40 | 59.82 | 51.25 | 48.36 | 53.76 | 55.93 | 42.71 | 46.26 | 31.61 | 49.61 |
| 1952..... | 55.31 | 65.35 | 56.11 | 55.37 | 56.48 | 61.66 | 45.89 | 49.13 | 34.05 | 54.13 |
| 1953..... | 58.11 | 68.70 | 59.01 | 60.57 | 61.09 | 65.16 | 48.26 | 51.64 | 36.87 | 57.30 |
| 1954..... | 59.85 | 70.48 | 60.94 | 61.04 | 62.62 | 67.76 | 50.60 | 53.78 | 38.77 | 58.88 |
| 1955..... | 60.31 | 73.25 | 63.34 | 61.94 | 64.39 | 70.56 | 52.25 | 56.48 | 40.54 | 60.87 |
| 1956..... | 65.04 | 77.59 | 66.47 | 68.26 | 66.99 | 73.93 | 54.49 | 60.07 | 42.74 | 64.18 |
| 1955— | | | | | | | | | | |
| Jan. 1..... | 59.84 | 70.33 | 60.80 | 56.70 | 63.15 | 68.33 | 50.72 | 54.45 | 39.57 | 58.49 |
| Feb. 1..... | 58.42 | 73.40 | 62.53 | 62.36 | 63.18 | 70.71 | 51.83 | 55.10 | 39.90 | 60.15 |
| Mar. 1..... | 64.68 | 73.57 | 63.11 | 63.16 | 64.13 | 70.83 | 51.96 | 55.47 | 40.11 | 60.86 |
| Apr. 1..... | 59.54 | 72.01 | 63.28 | 62.07 | 63.81 | 71.03 | 52.04 | 56.29 | 40.34 | 60.68 |
| May 1..... | 60.52 | 71.92 | 63.81 | 60.88 | 64.32 | 70.86 | 52.21 | 56.61 | 40.78 | 60.96 |
| June 1..... | 58.61 | 72.06 | 63.54 | 60.47 | 64.18 | 70.99 | 52.30 | 56.51 | 40.68 | 60.76 |
| July 1..... | 59.69 | 72.83 | 63.28 | 61.36 | 64.40 | 69.90 | 52.82 | 56.80 | 40.28 | 60.87 |
| Aug. 1..... | 61.94 | 73.37 | 63.18 | 62.49 | 65.14 | 69.81 | 53.01 | 56.61 | 40.20 | 61.13 |
| Sept. 1..... | 59.48 | 73.34 | 63.24 | 63.44 | 64.48 | 69.81 | 52.98 | 56.39 | 40.21 | 61.11 |
| Oct. 1..... | 57.93 | 73.99 | 64.04 | 63.19 | 65.02 | 70.61 | 52.56 | 57.83 | 40.91 | 61.49 |
| Nov. 1..... | 60.92 | 75.92 | 64.54 | 63.89 | 65.10 | 71.69 | 52.59 | 57.83 | 41.48 | 61.97 |
| Dec. 1..... | 62.14 | 76.32 | 64.71 | 63.33 | 65.74 | 72.18 | 51.99 | 57.92 | 42.04 | 62.02 |
| 1956— | | | | | | | | | | |
| Jan. 1..... | 63.57 | 73.66 | 62.47 | 58.71 | 65.17 | 71.24 | 52.72 | 58.08 | 41.64 | 60.54 |
| Feb. 1..... | 56.96 | 76.82 | 65.05 | 66.29 | 64.57 | 72.61 | 53.61 | 58.51 | 42.02 | 62.43 |
| Mar. 1..... | 63.00 | 77.43 | 65.57 | 67.32 | 65.20 | 73.59 | 54.06 | 58.96 | 42.48 | 63.20 |
| Apr. 1..... | 63.35 | 76.16 | 66.02 | 66.78 | 65.41 | 73.63 | 54.15 | 60.65 | 42.60 | 63.43 |
| May 1..... | 63.88 | 76.54 | 66.70 | 67.58 | 65.34 | 72.91 | 54.53 | 60.96 | 42.91 | 63.93 |
| June 1..... | 62.37 | 77.07 | 66.46 | 67.76 | 65.74 | 72.84 | 54.79 | 60.56 | 42.73 | 63.93 |
| July 1..... | 67.05 | 77.24 | 66.89 | 67.44 | 67.82 | 72.98 | 55.22 | 60.39 | 42.28 | 64.56 |
| Aug. 1..... | 67.44 | 77.49 | 66.44 | 70.25 | 67.99 | 73.24 | 55.36 | 60.53 | 42.32 | 64.77 |
| Sept. 1..... | 66.06 | 78.01 | 66.71 | 71.25 | 68.06 | 74.76 | 55.24 | 60.58 | 42.37 | 65.01 |
| Oct. 1..... | 67.79 | 80.30 | 67.97 | 72.87 | 69.50 | 76.37 | 55.07 | 60.42 | 43.33 | 66.07 |
| Nov. 1..... | 69.80 | 79.53 | 68.53 | 72.12 | 69.72 | 76.36 | 54.83 | 60.42 | 43.82 | 66.24 |
| Dec. 1..... | 69.22 | 80.87 | 68.78 | 70.78 | 69.38 | 76.65 | 54.29 | 60.79 | 44.39 | 66.11 |

¹ Mainly hotels, restaurants, laundries, dry-cleaning establishments and business and recreation service.

Subsection 3.—Earnings and Hours of Work of Male and Female Employees in Manufacturing Establishments

An annual inquiry is made in the last week of October each year into the earnings and hours of work of employees in manufacturing, providing more detailed data than are obtained from the monthly series of employment, payrolls and man-hours. Each year statistics of earnings and hours are requested for men and women wage-earners and salaried staffs. Rotating in a three-year cycle since 1949, additional data were collected as follows: (1) a distribution of wage-earners by a given range of hours; (2) office and clerical workers segregated from the general salaried data; and (3) a distribution of wage-earners and salaried staff employees by a given range of weekly earnings.

As in the monthly survey, the inquiry is limited to establishments employing 15 persons or over, accounting for about 90 p.c. of all employees reported to the Annual Census of Manufacturing. Establishments are asked to supply statistics for all regular employees, full- and part-time, as well as for casual workers who received pay in the week ended Oct. 31. Categories such as homeworkers, proprietors, firm members or directors, pensioners and staffs of separately organized sales branches are purposely excluded from

the reports. Gross payrolls are reported for the various categories before deductions for income tax and social security contributions. Such payments as regular bonuses and for absences in the week surveyed as well as overtime earnings are included. Part-time, full-time and overtime hours worked and hours of paid absence are given.

From 1946, when the first inquiry in the present series was made, to 1956, average earnings have shown a steady rise, weekly wages increasing by 97.6 p.c. and salaries by 94.4 p.c. In both cases, the annual averages of earnings of women have usually risen at a somewhat higher percentage rate though by smaller amounts, than those of men. The shortening of the work week in the postwar period has resulted in a considerably greater advance in average hourly wages than in average weekly wages.

Table 9 shows average earnings and average hours worked in certain industries. Table 10 shows the average hourly earnings of wage-earners and the increases recorded from year to year for the two sexes. Tables 11 and 12 summarize the available averages of hours worked, hourly earnings and weekly earnings for male and female wage-earners and salaried staffs for the last week in October 1955 and 1956. Table 13 shows the proportion of women employees and also the proportion of their average earnings to men's earnings for 1954, 1955 and 1956.

9.—Average Hours and Earnings in Specified Industries and Areas 1955 and 1956

| Industry, Province and Metropolitan Area | Average Hours Worked | | Average Hourly Earnings | | Average Weekly Wages | |
|--|----------------------|-------------|-------------------------|--------------|----------------------|--------------|
| | 1955 | 1956 | 1955 | 1956 | 1955 | 1956 |
| | No. | No. | cts. | cts. | \$ | \$ |
| Industry | | | | | | |
| Mining | 43.2 | 42.9 | 161.1 | 171.4 | 69.60 | 73.53 |
| Metal mining..... | 44.1 | 43.2 | 165.4 | 178.0 | 72.94 | 76.90 |
| Coal mining..... | 39.5 | 40.7 | 148.1 | 149.2 | 58.50 | 60.72 |
| Manufacturing | 41.0 | 41.1 | 144.5 | 151.5 | 59.25 | 62.27 |
| Durable goods ¹ | 41.2 | 41.2 | 155.7 | 163.2 | 64.15 | 67.24 |
| Non-durable goods ¹ | 40.8 | 40.9 | 132.7 | 138.6 | 54.14 | 56.69 |
| Construction | 39.9 | 41.1 | 150.9 | 163.9 | 60.21 | 67.36 |
| Buildings and structures..... | 39.5 | 41.0 | 162.5 | 176.5 | 64.19 | 72.37 |
| Highways, bridges and streets..... | 40.9 | 41.4 | 126.1 | 133.9 | 51.57 | 55.43 |
| Service | 40.4 | 40.3 | 85.6 | 89.0 | 34.58 | 35.87 |
| Hotels and restaurants..... | 40.8 | 40.4 | 85.2 | 88.8 | 34.76 | 35.88 |
| Laundries and dry-cleaning plants..... | 40.5 | 40.8 | 81.8 | 85.0 | 33.13 | 34.68 |
| Province | | | | | | |
| Newfoundland..... | 41.5 | 41.6 | 136.8 | 141.5 | 56.77 | 58.86 |
| Nova Scotia..... | 40.9 | 40.9 | 126.4 | 133.2 | 51.70 | 54.48 |
| New Brunswick..... | 41.9 | 41.9 | 128.3 | 135.2 | 53.76 | 56.65 |
| Quebec..... | 42.2 | 42.3 | 130.0 | 136.2 | 54.86 | 57.61 |
| Ontario..... | 40.8 | 40.7 | 152.1 | 159.6 | 62.06 | 64.96 |
| Manitoba..... | 40.2 | 40.5 | 137.4 | 143.1 | 55.23 | 57.96 |
| Saskatchewan..... | 40.4 | 40.0 | 150.4 | 156.4 | 60.76 | 62.56 |
| Alberta..... | 40.1 | 40.1 | 150.8 | 155.1 | 60.47 | 62.60 |
| British Columbia..... | 38.3 | 38.2 | 173.1 | 180.6 | 66.30 | 68.99 |
| Metropolitan Area | | | | | | |
| Montreal..... | 41.1 | 41.4 | 135.6 | 142.0 | 55.73 | 58.79 |
| Toronto..... | 40.4 | 40.6 | 151.9 | 157.6 | 61.37 | 63.99 |
| Hamilton..... | 40.3 | 40.6 | 163.1 | 174.2 | 65.73 | 70.73 |
| Windsor..... | 40.4 | 38.1 | 175.6 | 180.0 | 70.94 | 68.58 |
| Winnipeg..... | 39.9 | 40.3 | 135.2 | 140.3 | 53.94 | 56.54 |
| Vancouver..... | 38.0 | 38.2 | 169.9 | 176.9 | 64.56 | 67.58 |

¹ The durable goods group includes wood products, iron and steel products, transportation equipment, non-ferrous metal products, electrical apparatus and supplies, and non-metallic mineral products; the non-durable goods group includes all other manufacturing industries.

10.—Average Earnings of Male and Female Workers and Increases over the Preceding Year, Weeks Ended Oct. 31, 1951-56

(As reported by manufacturers usually employing 15 or more persons.)

| Year | Men | | | Women | | | Both Sexes | | |
|---|------------------|------------------------------|------|------------------|------------------------------|------|------------------|------------------------------|------|
| | Average Earnings | Increase over Preceding Year | | Average Earnings | Increase over Preceding Year | | Average Earnings | Increase over Preceding Year | |
| AVERAGE HOURLY EARNINGS OF WAGE EARNERS | | | | | | | | | |
| | \$ | \$ | p.c. | \$ | \$ | p.c. | \$ | \$ | p.c. |
| 1951..... | 1.31 | 0.17 | 14.9 | 0.82 | 0.10 | 13.9 | 1.22 | 0.16 | 15.1 |
| 1952..... | 1.40 | 0.09 | 6.9 | 0.86 | 0.04 | 4.9 | 1.30 | 0.08 | 6.6 |
| 1953..... | 1.47 | 0.07 | 5.0 | 0.91 | 0.05 | 5.8 | 1.36 | 0.06 | 4.6 |
| 1954..... | 1.51 | 0.04 | 2.7 | 0.93 | 0.02 | 2.2 | 1.40 | 0.04 | 2.9 |
| 1955..... | 1.57 | 0.06 | 4.0 | 0.95 | 0.02 | 2.2 | 1.44 | 0.04 | 2.9 |
| 1956..... | 1.66 | 0.09 | 5.7 | 1.00 | 0.05 | 5.3 | 1.53 | 0.09 | 6.2 |
| AVERAGE WEEKLY WAGES | | | | | | | | | |
| | \$ | \$ | p.c. | \$ | \$ | p.c. | \$ | \$ | p.c. |
| 1951..... | 56.46 | 5.53 | 10.9 | 31.27 | 2.27 | 7.8 | 51.32 | 5.38 | 11.7 |
| 1952..... | 60.85 | 4.39 | 7.8 | 34.17 | 2.90 | 9.3 | 55.17 | 3.85 | 7.5 |
| 1953..... | 62.71 | 1.86 | 3.1 | 35.07 | 0.90 | 2.6 | 56.75 | 1.58 | 2.9 |
| 1954..... | 63.98 | 1.27 | 2.0 | 35.90 | 0.83 | 2.4 | 57.99 | 1.24 | 2.2 |
| 1955..... | 66.86 | 2.88 | 4.5 | 37.52 | 1.62 | 4.5 | 60.53 | 2.54 | 4.4 |
| 1956..... | 70.67 | 3.81 | 5.7 | 39.29 | 1.77 | 4.7 | 63.97 | 3.44 | 5.7 |
| AVERAGE WEEKLY SALARIES | | | | | | | | | |
| | \$ | \$ | p.c. | \$ | \$ | p.c. | \$ | \$ | p.c. |
| 1951..... | 77.55 | 8.20 | 11.8 | 38.42 | 4.04 | 11.8 | 65.98 | 7.24 | 12.3 |
| 1952..... | 82.60 | 5.05 | 6.5 | 41.26 | 2.84 | 7.4 | 70.75 | 4.77 | 7.2 |
| 1953..... | 86.43 | 3.83 | 4.6 | 43.13 | 1.87 | 4.5 | 73.87 | 3.12 | 4.4 |
| 1954..... | 90.99 | 4.56 | 5.3 | 45.00 | 1.87 | 4.3 | 77.81 | 3.94 | 5.3 |
| 1955..... | 93.50 | 2.51 | 2.8 | 47.02 | 2.02 | 4.5 | 80.57 | 2.76 | 3.5 |
| 1956..... | 99.05 | 5.55 | 5.9 | 49.31 | 2.29 | 4.9 | 85.23 | 4.66 | 5.8 |

11.—Average Hours and Earnings of Male and Female Wage Earners for the Last Week of October 1955 and 1956

(As reported by manufacturers usually employing 15 or more persons.)

| Province | Average Hours Worked | | | Average Hourly Earnings | | | Average Weekly Earnings | | |
|--------------------|----------------------|-------|------------|-------------------------|-------|------------|-------------------------|-------|------------|
| | Men | Women | Both Sexes | Men | Women | Both Sexes | Men | Women | Both Sexes |
| 1955 | | | | | | | | | |
| | No. | No. | No. | \$ | \$ | \$ | \$ | \$ | \$ |
| Newfoundland..... | 41.9 | 38.0 | 41.5 | 1.46 | 0.55 | 1.37 | 61.17 | 20.72 | 56.93 |
| Nova Scotia..... | 41.6 | 39.9 | 41.4 | 1.34 | 0.62 | 1.25 | 55.62 | 24.70 | 51.53 |
| New Brunswick..... | 43.9 | 39.0 | 43.2 | 1.34 | 0.73 | 1.26 | 58.82 | 28.33 | 54.37 |
| Quebec..... | 44.7 | 39.8 | 43.3 | 1.43 | 0.89 | 1.29 | 63.69 | 35.53 | 55.84 |
| Ontario..... | 42.1 | 39.3 | 41.6 | 1.64 | 1.02 | 1.52 | 69.25 | 40.06 | 63.25 |
| Manitoba..... | 42.3 | 39.1 | 41.6 | 1.50 | 0.87 | 1.37 | 63.38 | 34.19 | 57.10 |
| Saskatchewan..... | 42.1 | 36.5 | 41.4 | 1.51 | 0.99 | 1.45 | 63.70 | 36.00 | 60.13 |

**11.—Average Hours and Earnings of Male and Female Wage Earners for the
Last Week of October 1955 and 1956—continued**

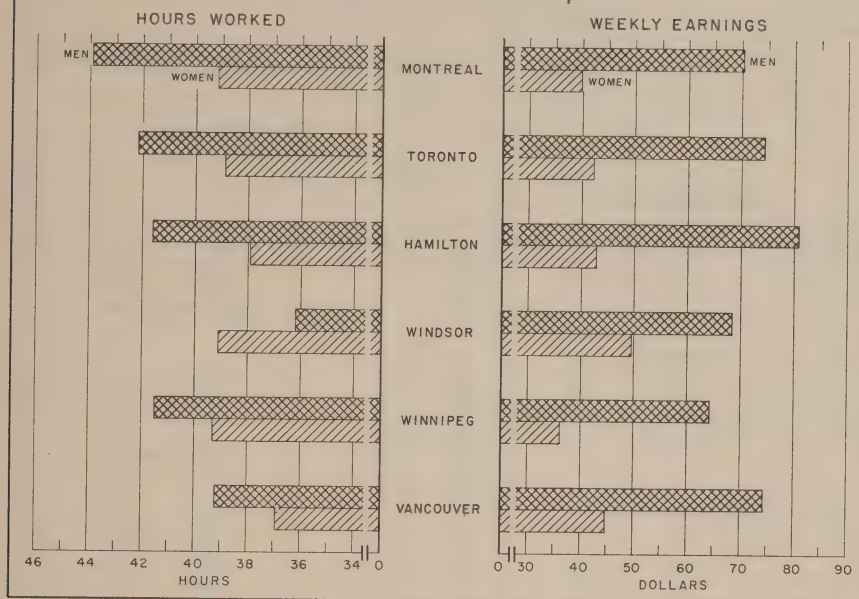
| Province, Metropolitan Area and Industry | Average Hours Worked | | | Average Hourly Earnings | | | Average Weekly Earnings | | |
|---|-------------------------|-------------|---------------|----------------------------|-------------|---------------|----------------------------|--------------|---------------|
| | Men | Women | Both Sexes | Men | Women | Both Sexes | Men | Women | Both Sexes |
| 1955—concluded | | | | | | | | | |
| Province—concluded | No. | No. | No. | \$ | \$ | \$ | \$ | \$ | \$ |
| Alberta..... | 41.8 | 37.9 | 41.3 | 1.56 | 1.04 | 1.50 | 65.16 | 39.31 | 61.80 |
| British Columbia..... | 39.9 | 36.4 | 39.6 | 1.81 | 1.12 | 1.74 | 72.14 | 40.96 | 68.88 |
| Totals..... | 42.7 | 39.4 | 42.0 | 1.44 | 0.95 | 1.44 | 66.86 | 37.52 | 60.53 |
| Metropolitan Area | | | | | | | | | |
| Montreal..... | 44.1 | 38.9 | 42.5 | 1.50 | 0.96 | 1.35 | 66.33 | 37.23 | 57.17 |
| Toronto..... | 42.3 | 39.1 | 41.4 | 1.67 | 1.03 | 1.51 | 70.78 | 40.38 | 62.48 |
| Hamilton..... | 42.0 | 39.2 | 41.4 | 1.79 | 1.09 | 1.65 | 75.04 | 42.72 | 68.28 |
| Windsor..... | 38.5 | 39.7 | 38.6 | 1.81 | 1.25 | 1.76 | 69.57 | 49.73 | 67.75 |
| Winnipeg..... | 42.0 | 39.1 | 41.3 | 1.48 | 0.88 | 1.35 | 62.03 | 34.37 | 55.60 |
| Vancouver..... | 39.2 | 37.3 | 38.9 | 1.81 | 1.12 | 1.71 | 70.91 | 41.88 | 66.43 |
| Industry | | | | | | | | | |
| Foods and beverages..... | 43.5 | 38.2 | 42.0 | 1.36 | 0.89 | 1.24 | 59.16 | 33.96 | 51.88 |
| Meat products..... | 41.9 | 38.0 | 41.1 | 1.61 | 1.18 | 1.53 | 67.58 | 45.03 | 63.06 |
| Canned and preserved fruits and vegetables..... | 44.8 | 36.2 | 40.2 | 1.14 | 0.79 | 0.97 | 51.34 | 28.59 | 38.99 |
| Bread and other bakery products..... | 45.8 | 41.6 | 45.0 | 1.27 | 0.76 | 1.18 | 58.23 | 31.74 | 53.19 |
| Tobacco and tobacco products..... | 41.4 | 39.7 | 40.3 | 1.60 | 1.30 | 1.42 | 66.30 | 51.84 | 57.14 |
| Rubber products..... | 43.6 | 40.8 | 43.0 | 1.62 | 1.11 | 1.51 | 70.87 | 45.18 | 65.03 |
| Leather products..... | 41.7 | 39.1 | 40.6 | 1.20 | 0.81 | 1.04 | 50.00 | 31.54 | 42.04 |
| Textile products (except clothing)..... | 45.0 | 40.9 | 43.5 | 1.20 | 0.93 | 1.11 | 54.21 | 38.22 | 48.36 |
| Cotton yarn and broad woven goods..... | 42.7 | 40.7 | 42.0 | 1.18 | 1.01 | 1.12 | 50.37 | 41.16 | 47.10 |
| Clothing (textile and fur)..... | 41.7 | 38.8 | 39.6 | 1.33 | 0.85 | 0.98 | 55.56 | 32.90 | 38.96 |
| Men's clothing..... | 40.2 | 38.6 | 39.0 | 1.33 | 0.85 | 0.98 | 53.31 | 32.75 | 38.35 |
| Women's clothing..... | 38.1 | 36.5 | 36.8 | 1.57 | 0.91 | 1.03 | 59.82 | 33.06 | 37.95 |
| Knit goods..... | 45.3 | 41.5 | 42.7 | 1.24 | 0.82 | 0.96 | 56.22 | 34.11 | 41.22 |
| Wood products..... | 43.7 | 40.9 | 43.5 | 1.31 | 1.02 | 1.30 | 57.29 | 41.94 | 56.38 |
| Saw and planing mills..... | 42.7 | 40.5 | 42.6 | 1.39 | 1.20 | 1.38 | 59.16 | 48.34 | 58.76 |
| Furniture..... | 45.7 | 41.1 | 45.3 | 1.21 | 1.01 | 1.20 | 55.27 | 41.42 | 54.16 |
| Paper products..... | 43.2 | 41.0 | 43.0 | 1.76 | 0.96 | 1.68 | 76.26 | 39.17 | 72.34 |
| Pulp and paper mills..... | 42.9 | 39.6 | 42.8 | 1.83 | 1.05 | 1.82 | 78.52 | 41.59 | 77.81 |
| Other paper products..... | 44.6 | 41.2 | 43.5 | 1.50 | 0.94 | 1.32 | 67.16 | 38.80 | 57.52 |
| Printing, publishing and allied trades..... | 40.7 | 38.2 | 40.1 | 1.92 | 0.96 | 1.73 | 78.17 | 36.61 | 69.35 |
| Iron and steel products..... | 42.8 | 39.9 | 42.6 | 1.68 | 1.19 | 1.66 | 71.76 | 47.59 | 70.63 |
| Iron castings..... | 44.6 | 41.6 | 44.6 | 1.64 | 1.23 | 1.64 | 73.18 | 51.29 | 72.84 |
| Machinery manufacturing..... | 43.5 | 39.5 | 43.2 | 1.62 | 1.24 | 1.59 | 70.21 | 49.02 | 68.91 |
| Primary iron and steel..... | 41.5 | 36.9 | 41.5 | 1.86 | 1.48 | 1.86 | 77.35 | 54.62 | 77.17 |
| Transportation equipment..... | 40.6 | 38.6 | 40.5 | 1.69 | 1.28 | 1.67 | 68.45 | 49.28 | 67.82 |
| Aircraft and parts..... | 42.1 | 39.6 | 42.0 | 1.75 | 1.30 | 1.74 | 73.61 | 51.75 | 72.99 |
| Motor vehicles..... | 38.7 | 24.4 | 38.6 | 1.78 | 1.36 | 1.77 | 68.69 | 33.24 | 68.53 |
| Motor vehicle parts and accessories..... | 40.8 | 38.7 | 40.5 | 1.70 | 1.32 | 1.64 | 69.23 | 51.30 | 66.56 |
| Railroad and rolling-stock equipment..... | 39.6 | -- | 39.5 | 1.60 | -- | 1.60 | 63.19 | -- | 63.17 |
| Shipbuilding and repairing..... | 42.5 | 41.5 | 42.5 | 1.62 | 0.85 | 1.61 | 68.67 | 35.26 | 68.27 |
| Non-ferrous metal products..... | 42.1 | 40.7 | 42.0 | 1.72 | 0.96 | 1.67 | 72.41 | 39.13 | 70.02 |
| Smelting and refining..... | 41.4 | 36.0 | 41.4 | 1.83 | 1.21 | 1.83 | 75.92 | 43.72 | 75.75 |
| Electrical apparatus and supplies..... | 43.5 | 40.2 | 42.3 | 1.65 | 1.20 | 1.50 | 71.75 | 48.15 | 63.35 |
| Non-metallic mineral products..... | 45.3 | 40.5 | 45.0 | 1.50 | 1.08 | 1.48 | 68.06 | 43.97 | 66.44 |
| Products of petroleum and coal..... | 41.6 | -- | 41.5 | 1.96 | -- | 1.96 | 81.71 | -- | 81.44 |
| Chemical products..... | 42.0 | 39.2 | 41.5 | 1.63 | 1.00 | 1.52 | 68.31 | 39.23 | 63.20 |
| Miscellaneous manufacturing industries..... | 44.1 | 40.6 | 42.7 | 1.35 | 0.87 | 1.17 | 59.57 | 35.29 | 49.76 |
| Averages, Durable Goods..... | 42.5 | 40.1 | 42.3 | 1.60 | 1.16 | 1.57 | 68.07 | 46.46 | 66.23 |
| Averages, Non-durable Goods..... | 43.0 | 39.2 | 41.7 | 1.52 | 0.90 | 1.32 | 65.18 | 35.34 | 54.86 |
| Averages, Manufacturing Industries..... | 42.7 | 39.4 | 42.0 | 1.57 | 0.95 | 1.44 | 66.86 | 37.52 | 60.53 |

**11.—Average Hours and Earnings of Male and Female Wage Earners for the
Last Week of October 1955 and 1956—concluded**

| Province, Metropolitan Area and Industry | Average Hours Worked | | | Average Hourly Earnings | | | Average Weekly Earnings | | |
|---|-------------------------|-------------|---------------|----------------------------|-------------|---------------|----------------------------|--------------|---------------|
| | Men | Women | Both Sexes | Men | Women | Both Sexes | Men | Women | Both Sexes |
| 1956 | | | | | | | | | |
| Province | No. | No. | No. | \$ | \$ | \$ | \$ | \$ | \$ |
| Newfoundland..... | 42.0 | 33.4 | 40.9 | 1.56 | 0.57 | 1.46 | 65.52 | 19.12 | 59.89 |
| Nova Scotia..... | 41.3 | 41.0 | 41.3 | 1.41 | 0.63 | 1.30 | 58.19 | 25.88 | 53.61 |
| New Brunswick..... | 44.3 | 40.4 | 43.7 | 1.41 | 0.73 | 1.32 | 62.65 | 29.36 | 57.61 |
| Quebec..... | 44.5 | 39.7 | 43.2 | 1.52 | 0.94 | 1.38 | 67.56 | 37.46 | 59.39 |
| Ontario..... | 41.9 | 39.1 | 41.3 | 1.75 | 1.07 | 1.62 | 73.39 | 41.69 | 66.87 |
| Manitoba..... | 41.7 | 39.3 | 41.2 | 1.57 | 0.91 | 1.44 | 65.65 | 35.76 | 59.19 |
| Saskatchewan..... | 41.2 | 37.3 | 40.7 | 1.59 | 1.02 | 1.53 | 65.62 | 38.23 | 62.13 |
| Alberta..... | 41.4 | 38.6 | 41.1 | 1.64 | 1.11 | 1.57 | 67.96 | 42.72 | 64.58 |
| British Columbia..... | 39.8 | 36.5 | 39.5 | 1.90 | 1.20 | 1.83 | 75.53 | 43.67 | 72.39 |
| Totals..... | 42.5 | 39.2 | 41.8 | 1.66 | 1.00 | 1.53 | 70.67 | 39.29 | 63.97 |
| Metropolitan Area | | | | | | | | | |
| Montreal..... | 43.9 | 39.2 | 42.5 | 1.60 | 1.02 | 1.43 | 70.24 | 39.93 | 61.03 |
| Toronto..... | 42.2 | 38.9 | 41.3 | 1.76 | 1.08 | 1.59 | 74.42 | 42.09 | 65.66 |
| Hamilton..... | 41.6 | 37.9 | 40.9 | 1.94 | 1.13 | 1.80 | 80.86 | 42.88 | 73.87 |
| Windsor..... | 36.2 | 39.1 | 36.5 | 1.89 | 1.27 | 1.82 | 68.45 | 49.62 | 66.47 |
| Winnipeg..... | 41.5 | 39.3 | 41.0 | 1.55 | 0.92 | 1.41 | 64.29 | 36.10 | 57.79 |
| Vancouver ¹ | 39.2 | 36.9 | 38.8 | 1.90 | 1.22 | 1.81 | 74.49 | 44.93 | 70.16 |
| Industry | | | | | | | | | |
| Foods and beverages..... | 43.2 | 38.6 | 41.8 | 1.44 | 0.94 | 1.30 | 62.35 | 36.12 | 54.51 |
| Meat products..... | 41.5 | 38.6 | 40.9 | 1.71 | 1.25 | 1.62 | 71.12 | 48.39 | 66.39 |
| Canned and preserved fruits and vegetables..... | 43.4 | 35.6 | 39.3 | 1.20 | 0.81 | 1.01 | 52.20 | 28.71 | 39.73 |
| Bread and other bakery products..... | 44.8 | 40.2 | 43.9 | 1.39 | 0.83 | 1.29 | 62.36 | 33.28 | 56.56 |
| Tobacco and tobacco products..... | 41.5 | 38.2 | 39.4 | 1.69 | 1.37 | 1.49 | 70.10 | 52.43 | 58.82 |
| Rubber products..... | 43.1 | 39.9 | 42.4 | 1.74 | 1.14 | 1.61 | 74.79 | 45.47 | 68.36 |
| Leather products..... | 41.7 | 38.9 | 40.4 | 1.24 | 0.85 | 1.07 | 51.92 | 33.06 | 43.37 |
| Textile products (except clothing)..... | 44.7 | 40.5 | 43.2 | 1.27 | 0.98 | 1.17 | 56.89 | 39.53 | 50.53 |
| Cotton yarn and broad woven goods..... | 42.8 | 39.8 | 41.7 | 1.26 | 1.08 | 1.20 | 53.85 | 43.16 | 50.10 |
| Clothing (textile and fur)..... | 42.3 | 39.0 | 39.8 | 1.41 | 0.90 | 1.04 | 59.78 | 35.00 | 41.49 |
| Men's clothing..... | 40.6 | 39.0 | 39.4 | 1.41 | 0.89 | 1.03 | 57.27 | 34.82 | 40.71 |
| Women's clothing..... | 39.3 | 37.2 | 37.6 | 1.71 | 0.99 | 1.13 | 67.16 | 36.72 | 42.38 |
| Knit goods..... | 45.6 | 40.6 | 42.1 | 1.27 | 0.85 | 0.99 | 57.76 | 34.52 | 41.66 |
| Wood products..... | 43.4 | 40.7 | 43.3 | 1.36 | 1.06 | 1.35 | 59.19 | 43.38 | 58.22 |
| Saw and planing mills..... | 42.5 | 40.6 | 42.4 | 1.43 | 1.21 | 1.42 | 60.70 | 49.08 | 60.26 |
| Furniture..... | 45.5 | 41.3 | 45.1 | 1.28 | 1.05 | 1.26 | 58.01 | 43.53 | 56.74 |
| Paper products..... | 42.7 | 40.0 | 42.4 | 1.88 | 1.03 | 1.80 | 80.45 | 41.00 | 76.38 |
| Pulp and paper mills..... | 42.5 | 38.9 | 42.5 | 1.95 | 1.14 | 1.94 | 83.14 | 44.49 | 82.35 |
| Other paper products..... | 43.5 | 40.1 | 42.4 | 1.58 | 1.01 | 1.40 | 68.90 | 40.40 | 59.14 |
| Printing, publishing and allied trades..... | 40.9 | 38.1 | 40.3 | 2.01 | 1.02 | 1.80 | 82.19 | 38.83 | 72.78 |
| Iron and steel products..... | 42.5 | 39.2 | 42.4 | 1.79 | 1.25 | 1.76 | 76.08 | 49.05 | 74.85 |
| Iron castings..... | 42.6 | 39.2 | 42.6 | 1.71 | 1.23 | 1.71 | 72.98 | 48.21 | 72.58 |
| Machinery manufacturing..... | 44.5 | 39.3 | 44.2 | 1.69 | 1.29 | 1.67 | 75.31 | 50.81 | 73.91 |
| Primary iron and steel..... | 41.1 | 36.0 | 41.0 | 2.07 | 1.71 | 2.07 | 85.14 | 61.72 | 84.96 |
| Transportation equipment..... | 40.9 | 39.1 | 40.8 | 1.80 | 1.37 | 1.78 | 73.43 | 53.40 | 72.75 |
| Aircraft and parts..... | 42.6 | 39.6 | 42.5 | 1.82 | 1.35 | 1.81 | 77.48 | 53.57 | 76.86 |
| Motor vehicles..... | 37.9 | 39.6 | 37.9 | 1.94 | 1.58 | 1.93 | 73.39 | 62.60 | 73.20 |
| Motor vehicle parts and accessories..... | 41.5 | 38.5 | 41.1 | 1.83 | 1.42 | 1.78 | 75.94 | 54.77 | 73.07 |
| Railroad and rolling-stock equipment..... | 39.5 | -- | 39.4 | 1.71 | -- | 1.71 | 67.49 | -- | 67.45 |
| Shipbuilding and repairing..... | 44.1 | 42.6 | 44.0 | 1.71 | 0.85 | 1.70 | 75.54 | 36.22 | 75.02 |
| Non-ferrous metal products..... | 41.7 | 40.4 | 41.6 | 1.79 | 0.98 | 1.74 | 74.82 | 39.57 | 72.51 |
| Smelting and refining..... | 41.3 | -- | 41.3 | 1.92 | -- | 1.92 | 79.35 | -- | 79.27 |
| Electrical apparatus and supplies..... | 42.7 | 39.3 | 41.7 | 1.77 | 1.27 | 1.62 | 75.52 | 49.89 | 67.73 |
| Non-metallic mineral products..... | 44.5 | 39.9 | 44.2 | 1.59 | 1.17 | 1.56 | 70.61 | 46.83 | 69.08 |
| Products of petroleum and coal..... | 40.6 | -- | 40.6 | 2.07 | -- | 2.07 | 84.21 | -- | 83.83 |
| Chemical products..... | 42.0 | 39.2 | 41.5 | 1.72 | 1.06 | 1.62 | 72.19 | 41.70 | 67.08 |
| Miscellaneous manufacturing industries..... | 43.9 | 40.6 | 42.5 | 1.43 | 0.92 | 1.22 | 62.73 | 37.26 | 52.06 |
| Averages, Durable Goods..... | 42.3 | 39.6 | 42.1 | 1.70 | 1.22 | 1.66 | 71.93 | 48.33 | 70.03 |
| Averages, Non-durable Goods..... | 42.8 | 39.1 | 41.5 | 1.61 | 0.95 | 1.39 | 68.89 | 37.18 | 57.87 |
| Averages, Manufacturing Industries..... | 42.5 | 39.2 | 41.8 | 1.66 | 1.00 | 1.53 | 70.67 | 39.29 | 63.97 |

¹ New Westminster included in 1956.

**AVERAGE HOURS AND EARNINGS OF MALE AND FEMALE
WAGE EARNERS BY MAJOR CITIES FOR THE
LAST WEEK OF OCTOBER, 1956**



**12.—Average Hours and Earnings of Male and Female Salaried Employees for
the Last Week of October 1955 and 1956**

(As reported by manufacturers usually employing 15 or more persons.)

| Province | Average Hours Worked | | | Average Weekly Earnings | | |
|-----------------------|----------------------|-------------|-------------|-------------------------|--------------|--------------|
| | Men | Women | Both Sexes | Men | Women | Both Sexes |
| 1955 | | | | | | |
| Province | No. | No. | No. | \$ | \$ | \$ |
| Newfoundland..... | 41.6 | 40.8 | 41.4 | 81.87 | 39.85 | 73.59 |
| Nova Scotia..... | 42.0 | 38.4 | 41.1 | 76.48 | 37.88 | 66.43 |
| New Brunswick..... | 41.3 | 38.2 | 40.5 | 79.35 | 37.70 | 66.26 |
| Quebec..... | 39.7 | 37.9 | 39.2 | 91.26 | 46.74 | 79.25 |
| Ontario..... | 39.3 | 37.8 | 38.8 | 96.52 | 48.03 | 82.47 |
| Manitoba..... | 40.1 | 38.2 | 39.6 | 81.04 | 40.76 | 70.57 |
| Saskatchewan..... | 40.7 | 39.6 | 40.4 | 76.35 | 42.88 | 66.24 |
| Alberta..... | 40.4 | 38.6 | 39.9 | 86.18 | 43.61 | 75.60 |
| British Columbia..... | 39.8 | 38.2 | 39.4 | 97.12 | 47.53 | 85.00 |
| Totals..... | 39.6 | 37.9 | 39.1 | 93.50 | 47.03 | 80.57 |

**12.—Average Hours and Earnings of Male and Female Salaried Employees for
the Last Week of October 1955 and 1956—continued**

| Metropolitan Area, Industry and Province | Average Hours Worked | | | Average Weekly Earnings | | |
|---|----------------------|-------------|---------------|-------------------------|--------------|---------------|
| | Men | Women | Both Sexes | Men | Women | Both Sexes |
| 1955—concluded | | | | | | |
| Metropolitan Area | No. | No. | No. | \$ | \$ | \$ |
| Montreal..... | 39.1 | 37.6 | 38.7 | 94.20 | 49.29 | 81.51 |
| Toronto..... | 38.6 | 37.4 | 38.2 | 97.22 | 50.01 | 82.65 |
| Hamilton..... | 39.0 | 38.0 | 38.7 | 98.70 | 47.09 | 83.75 |
| Windsor..... | 41.5 | 39.3 | 41.0 | 110.59 | 55.77 | 96.49 |
| Winnipeg..... | 39.9 | 38.2 | 39.5 | 81.45 | 41.05 | 70.69 |
| Vancouver..... | 39.2 | 37.8 | 38.8 | 95.60 | 47.54 | 81.86 |
| Industry | | | | | | |
| Foods and beverages..... | 40.6 | 38.2 | 39.9 | 83.50 | 44.67 | 73.42 |
| Meat products..... | 40.5 | 38.7 | 40.2 | 84.74 | 49.11 | 77.82 |
| Canned and preserved fruits and vegetables..... | 40.4 | 38.1 | 39.7 | 82.87 | 44.05 | 70.63 |
| Bread and other bakery products..... | 44.5 | 39.5 | 43.0 | 72.04 | 40.21 | 62.41 |
| Tobacco and tobacco products..... | 38.0 | 37.3 | 37.8 | 98.20 | 56.74 | 84.12 |
| Rubber products..... | 39.2 | 38.3 | 38.9 | 86.67 | 43.95 | 75.13 |
| Leather products..... | 40.8 | 37.9 | 39.8 | 78.49 | 39.81 | 66.17 |
| Textile products (except clothing)..... | 40.9 | 38.1 | 40.1 | 88.74 | 42.83 | 75.10 |
| Cotton yarn and broad woven goods..... | 39.7 | 37.9 | 39.2 | 85.56 | 41.30 | 73.10 |
| Clothing (textile and fur)..... | 40.8 | 38.6 | 39.9 | 83.18 | 43.34 | 66.94 |
| Men's clothing..... | 40.2 | 38.5 | 39.6 | 79.40 | 40.99 | 65.57 |
| Women's clothing..... | 40.5 | 38.1 | 39.5 | 81.24 | 47.93 | 66.37 |
| Knit goods..... | 42.2 | 39.1 | 40.9 | 84.65 | 39.42 | 65.59 |
| Wood products..... | 41.8 | 38.2 | 40.9 | 86.58 | 44.02 | 76.34 |
| Saw and planing mills..... | 42.7 | 39.3 | 42.0 | 87.30 | 45.10 | 78.83 |
| Furniture..... | 40.5 | 37.6 | 39.6 | 85.74 | 43.32 | 72.81 |
| Paper products..... | 38.0 | 37.0 | 37.7 | 111.47 | 49.55 | 95.20 |
| Pulp and paper mills..... | 38.3 | 37.1 | 38.0 | 120.63 | 52.65 | 105.15 |
| Other paper products..... | 37.5 | 36.8 | 37.3 | 94.02 | 45.89 | 78.53 |
| Printing, publishing and allied trades..... | 37.9 | 37.2 | 37.6 | 84.02 | 43.84 | 68.54 |
| Iron and steel products..... | 39.2 | 37.8 | 38.9 | 93.18 | 46.77 | 81.53 |
| Iron castings..... | 40.1 | 37.7 | 39.5 | 92.01 | 44.16 | 79.74 |
| Machinery manufacturing..... | 38.9 | 37.7 | 38.6 | 89.07 | 46.56 | 77.43 |
| Primary iron and steel..... | 39.9 | 38.2 | 39.5 | 105.06 | 49.19 | 93.54 |
| Transportation equipment..... | 40.5 | 39.1 | 40.2 | 98.30 | 50.98 | 87.76 |
| Aircraft and parts..... | 39.6 | 38.9 | 39.4 | 98.17 | 49.21 | 86.40 |
| Motor vehicles..... | 42.6 | 40.4 | 42.1 | 108.26 | 57.91 | 97.44 |
| Motor vehicle parts and accessories..... | 39.5 | 38.6 | 39.3 | 97.71 | 51.17 | 86.04 |
| Railroad and rolling-stock equipment..... | 39.8 | 38.4 | 39.6 | 89.72 | 50.93 | 84.74 |
| Shipbuilding and repairing..... | 40.2 | 38.0 | 39.8 | 85.23 | 41.97 | 76.04 |
| Non-ferrous metal products..... | 39.1 | 37.3 | 38.6 | 99.21 | 48.75 | 86.55 |
| Smelting and refining..... | 39.7 | 38.7 | 39.6 | 100.65 | 50.65 | 93.45 |
| Electrical apparatus and supplies..... | 39.1 | 38.1 | 38.8 | 95.57 | 50.38 | 83.39 |
| Non-metallic mineral products..... | 40.1 | 37.5 | 39.5 | 92.20 | 46.97 | 81.04 |
| Products of petroleum and coal..... | 37.1 | 36.3 | 36.9 | 121.46 | 54.77 | 105.76 |
| Chemical products..... | 38.6 | 37.7 | 38.3 | 96.63 | 49.53 | 82.41 |
| Miscellaneous manufacturing industries..... | 39.9 | 37.7 | 39.1 | 91.55 | 45.45 | 75.26 |
| Averages, Durable Goods..... | 39.8 | 38.1 | 39.4 | 94.91 | 48.52 | 83.46 |
| Averages, Non-durable Goods..... | 39.3 | 37.7 | 38.9 | 92.02 | 45.87 | 77.78 |
| Averages, Manufacturing Industries..... | 39.6 | 37.9 | 39.1 | 93.50 | 47.02 | 80.57 |
| 1956 | | | | | | |
| Province | No. | No. | No. | \$ | \$ | \$ |
| Newfoundland..... | 40.9 | 40.3 | 40.8 | 87.32 | 42.00 | 77.97 |
| Nova Scotia..... | 41.3 | 38.3 | 40.5 | 82.64 | 39.06 | 71.00 |
| New Brunswick..... | 41.5 | 38.4 | 40.7 | 82.30 | 40.63 | 70.98 |

**12.—Average Hours and Earnings of Male and Female Salaried Employees for
the Last Week of October 1955 and 1956—concluded**

| Province, Metropolitan Area and Industry | Average Hours Worked | | | Average Weekly Earnings | | |
|---|----------------------|-------------|---------------|-------------------------|--------------|---------------|
| | Men | Women | Both Sexes | Men | Women | Both Sexes |
| 1956—concluded | | | | | | |
| Province—concluded | No. | No. | No. | \$ | \$ | \$ |
| Quebec..... | 39.4 | 37.8 | 39.0 | 96.89 | 49.40 | 84.10 |
| Ontario..... | 39.1 | 37.7 | 38.7 | 102.19 | 50.18 | 87.14 |
| Manitoba..... | 39.9 | 38.1 | 39.4 | 84.24 | 41.95 | 73.17 |
| Saskatchewan..... | 40.5 | 39.5 | 40.2 | 79.64 | 45.07 | 69.51 |
| Alberta..... | 40.3 | 38.9 | 40.0 | 91.71 | 46.77 | 80.71 |
| British Columbia..... | 39.4 | 38.3 | 39.2 | 102.47 | 49.61 | 89.54 |
| Totals..... | 39.4 | 37.9 | 38.9 | 99.05 | 49.31 | 85.23 |
| Metropolitan Area | | | | | | |
| Montreal..... | 39.0 | 37.6 | 38.6 | 99.97 | 51.83 | 86.32 |
| Toronto..... | 38.6 | 37.4 | 38.2 | 102.55 | 52.19 | 87.12 |
| Hamilton..... | 39.3 | 38.0 | 38.9 | 108.97 | 49.47 | 91.76 |
| Windsor..... | 39.6 | 38.4 | 39.3 | 110.38 | 58.47 | 97.38 |
| Winnipeg..... | 39.7 | 38.1 | 39.3 | 84.52 | 42.00 | 73.10 |
| Vancouver ¹ | 39.0 | 38.0 | 38.7 | 101.18 | 49.98 | 86.88 |
| Industry | | | | | | |
| Foods and beverages..... | 40.4 | 38.2 | 39.8 | 87.51 | 47.08 | 76.93 |
| Meat products..... | 40.6 | 39.7 | 40.4 | 87.62 | 51.24 | 80.35 |
| Canned and preserved fruits and vegetables..... | 40.4 | 38.2 | 39.7 | 87.35 | 74.52 | 46.68 |
| Bread and other bakery products..... | 44.4 | 39.5 | 43.0 | 74.45 | 42.48 | 65.71 |
| Tobacco and tobacco products..... | 37.9 | 37.6 | 37.8 | 101.57 | 56.19 | 85.50 |
| Rubber products..... | 39.1 | 38.1 | 38.8 | 92.31 | 46.94 | 79.77 |
| Leather products..... | 40.4 | 37.8 | 39.6 | 81.65 | 42.06 | 68.91 |
| Textile products (except clothing)..... | 39.6 | 37.7 | 39.1 | 92.79 | 44.89 | 78.29 |
| Cotton yarn and broad woven goods..... | 39.3 | 37.5 | 38.7 | 88.42 | 43.35 | 75.12 |
| Clothing (textile and fur)..... | 40.4 | 38.3 | 39.5 | 87.29 | 45.38 | 69.75 |
| Men's clothing..... | 39.9 | 38.0 | 39.2 | 83.73 | 42.03 | 68.01 |
| Women's clothing..... | 40.1 | 38.4 | 39.3 | 87.98 | 51.24 | 71.06 |
| Knit goods..... | 41.4 | 38.2 | 40.0 | 86.89 | 40.94 | 67.03 |
| Wood products..... | 41.6 | 38.1 | 40.8 | 89.31 | 45.06 | 78.87 |
| Saw and planing mills..... | 42.5 | 39.3 | 41.9 | 90.06 | 45.43 | 81.41 |
| Furniture..... | 40.2 | 37.2 | 39.3 | 89.25 | 44.65 | 75.54 |
| Paper products..... | 37.7 | 36.8 | 37.5 | 117.86 | 53.03 | 101.05 |
| Pulp and paper mills..... | 37.9 | 37.0 | 37.7 | 127.70 | 56.47 | 111.66 |
| Other paper products..... | 37.3 | 36.6 | 37.1 | 98.95 | 48.89 | 83.08 |
| Printing, publishing and allied trades..... | 37.5 | 37.1 | 37.3 | 91.91 | 46.72 | 74.50 |
| Iron and steel products..... | 39.2 | 37.7 | 38.8 | 99.50 | 48.75 | 86.51 |
| Iron castings..... | 39.4 | 37.1 | 38.8 | 94.63 | 45.86 | 82.11 |
| Machinery manufacturing..... | 39.1 | 37.8 | 38.7 | 93.47 | 47.08 | 80.64 |
| Primary iron and steel..... | 39.8 | 38.8 | 39.6 | 115.98 | 53.86 | 102.76 |
| Transportation equipment..... | 40.5 | 39.1 | 40.2 | 103.42 | 53.81 | 92.25 |
| Aircraft and parts..... | 40.5 | 39.3 | 40.2 | 104.06 | 52.95 | 92.03 |
| Motor vehicles..... | 41.1 | 39.5 | 40.7 | 112.13 | 60.26 | 100.54 |
| Motor vehicle parts and accessories..... | 39.9 | 38.8 | 39.6 | 102.80 | 53.13 | 90.02 |
| Railroad and rolling-stock equipment..... | 40.2 | 39.5 | 40.1 | 93.91 | 49.97 | 87.88 |
| Shipbuilding and repairing..... | 40.3 | 37.3 | 39.6 | 88.88 | 43.05 | 79.20 |
| Non-ferrous metal products..... | 38.7 | 37.5 | 38.4 | 104.06 | 50.89 | 91.28 |
| Smelting and refining..... | 39.4 | 39.2 | 39.4 | 105.32 | 57.06 | 98.50 |
| Electrical apparatus and supplies..... | 39.4 | 38.4 | 39.1 | 102.73 | 50.74 | 88.71 |
| Non-metallic mineral products..... | 39.6 | 37.2 | 39.0 | 97.73 | 49.22 | 85.90 |
| Products of petroleum and coal..... | 37.0 | 36.1 | 36.8 | 126.42 | 57.72 | 110.54 |
| Chemical products..... | 38.1 | 37.6 | 38.0 | 101.85 | 52.51 | 87.38 |
| Miscellaneous manufacturing industries..... | 38.9 | 37.4 | 38.3 | 95.04 | 48.29 | 78.66 |
| Averages, Durable Goods..... | 39.8 | 38.2 | 39.4 | 100.61 | 50.29 | 88.17 |
| Averages, Non-durable Goods..... | 38.9 | 37.6 | 38.5 | 97.37 | 48.53 | 82.31 |
| Averages, Manufacturing Industries..... | 39.4 | 37.9 | 38.9 | 99.05 | 49.31 | 85.23 |

¹ New Westminster included in 1956.

13.—Proportions of Women Employees and Proportions of their Average Earnings to Men's Earnings for the Last Week of October 1954-56

(As reported by manufacturers usually employing 15 or more persons.)

| Province and Group | Wage Earners | | | | | | Salaried Employees | | | | | |
|------------------------------------|---------------------|-------------|-------------|--------------------------------------|-------------|-------------|---------------------|-------------|-------------|---|-------------|-------------|
| | Proportion of Women | | | Proportion of Women's Wages to Men's | | | Proportion of Women | | | Proportion of Women's Salaries to Men's | | |
| | 1954 | 1955 | 1956 | 1954 | 1955 | 1956 | 1954 | 1955 | 1956 | 1954 | 1955 | 1956 |
| | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. |
| Newfoundland..... | 10.1 | 10.5 | 12.1 | 34.1 | 33.9 | 29.2 | 20.9 | 19.7 | 20.6 | 46.7 | 48.7 | 48.1 |
| Nova Scotia..... | 13.7 | 13.2 | 14.2 | 43.9 | 44.4 | 44.5 | 26.3 | 26.0 | 26.7 | 46.4 | 49.5 | 47.3 |
| New Brunswick..... | 13.2 | 14.6 | 15.1 | 46.6 | 48.2 | 46.9 | 28.0 | 26.6 | 27.2 | 46.2 | 47.5 | 49.4 |
| Quebec..... | 27.3 | 27.9 | 27.2 | 56.1 | 55.8 | 55.4 | 28.1 | 27.0 | 26.9 | 50.6 | 51.2 | 51.0 |
| Ontario..... | 20.4 | 20.6 | 20.6 | 58.0 | 57.8 | 56.8 | 29.7 | 29.0 | 28.9 | 48.9 | 49.8 | 49.1 |
| Manitoba..... | 21.6 | 21.5 | 21.6 | 55.5 | 53.9 | 54.5 | 27.4 | 26.0 | 26.2 | 50.2 | 50.3 | 49.8 |
| Saskatchewan..... | 12.1 | 12.9 | 12.7 | 57.2 | 56.5 | 58.3 | 32.4 | 30.2 | 29.3 | 55.8 | 56.2 | 56.6 |
| Alberta..... | 12.2 | 13.0 | 13.4 | 59.1 | 60.3 | 62.9 | 25.9 | 24.9 | 24.5 | 50.4 | 50.6 | 51.0 |
| British Columbia..... | 10.1 | 10.5 | 9.9 | 56.1 | 56.8 | 57.8 | 24.7 | 24.4 | 24.5 | 48.2 | 48.9 | 48.4 |
| Canada¹ | 21.3 | 21.6 | 21.4 | 56.1 | 56.1 | 55.6 | 28.7 | 27.8 | 27.8 | 49.5 | 50.3 | 49.8 |
| Durable goods manufacturing... | 8.1 | 8.5 | 8.1 | 68.9 | 68.3 | 67.2 | 25.1 | 24.7 | 24.7 | 50.2 | 51.1 | 50.0 |
| Non-durable goods manufacturing... | 33.6 | 34.6 | 34.8 | 54.3 | 54.2 | 54.0 | 32.1 | 30.9 | 30.8 | 49.0 | 49.8 | 49.8 |

¹ Includes Prince Edward Island and the Yukon and Northwest Territories.

Data required for the tabulation of the provincial distribution of male and female wage earners and salary earners, classified by earnings group, are secured every third year. The figures for 1953 as compared with 1950 are given in the 1955 Year Book at pp. 790-791. Figures for 1956 may be obtained from the Labour and Prices Division, Dominion Bureau of Statistics.

Section 4.—Wage Rates, Hours of Labour and Other Working Conditions

Statistics on occupational wage rates by industry and region or city, and standard hours of labour are compiled by the Federal Department of Labour and published in the annual report *Wage Rates and Hours of Labour in Canada*. Some of these statistics are also published from time to time in *The Labour Gazette*, the official journal of the Department.

The statistics on wage rates apply to the last normal pay period preceding Oct. 1, and cover about 13,500 establishments. Average wage rates of time workers and average straight-time earnings of piece workers and other incentive workers in a given occupation are shown separately but are combined in the calculation of index numbers. Predominant ranges of rates for each occupation used are also given. Overtime pay is excluded.

The industry index numbers measure changes in wage rates for non-office employees below the rank of foreman. They do not, however, provide a basis for comparing the level of wages in one industry with that in another. More detailed information on concepts and methods of developing these statistics is given in the annual report.

14.—Index Numbers of Average Wage Rates for Certain Main Industrial Groups 1947-56

(1949=100)

NOTE.—Indexes for the years prior to 1949 are conversions of the previous series on the 1939 base. Indexes back to 1901 may be obtained from the Department of Labour publication *Wage Rates and Hours of Labour in Canada, 1956*.

| Year | Logging | Coal Mining | Metal Mining | Manufacturing | | | Con-struction | Steam Rail-ways | Tele-phones | Personal Service | General Average |
|-----------|---------|-------------|--------------|---------------|-------------------|--------------------|---------------|-----------------|-------------|------------------|-----------------|
| | | | | Durable Goods | Non-durable Goods | All Manu-facturing | | | | | |
| 1947..... | 90.2 | 85.0 | 87.2 | 84.9 | 83.5 | 84.1 | 84.1 | 83.6 | 87.3 | 87.4 | 84.9 |
| 1948..... | 101.2 | 98.4 | 95.7 | 94.7 | 94.4 | 94.5 | 95.7 | 100.0 | 92.7 | 93.8 | 95.7 |
| 1949..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| 1950..... | 97.0 | 102.8 | 106.8 | 106.6 | 105.6 | 106.1 | 104.8 | 105.1 | 104.8 | 102.9 | 105.5 |
| 1951..... | 109.6 | 111.1 | 121.6 | 121.7 | 118.8 | 120.3 | 118.6 | 121.9 | 115.7 | 110.6 | 119.1 |
| 1952..... | 133.3 | 124.0 | 130.1 | 130.2 | 126.5 | 128.4 | 128.6 | 136.8 | 128.4 | 117.6 | 127.7 |
| 1953..... | 135.5 | 124.0 | 132.3 | 136.3 | 132.8 | 134.6 | 136.2 | 137.2 | 136.6 | 123.3 | 133.6 |
| 1954..... | 138.0 | 123.5 | 136.7 | 140.0 | 136.9 | 138.5 | 140.0 | 137.8 | 147.6 | 128.6 | 137.9 |
| 1955..... | 138.2 | 122.8 | 140.3 | 143.7 | 140.7 | 142.2 | 145.4 | 137.8 | 152.8 | 132.3 | 141.7 |
| 1956..... | 160.8 | 123.6 | 150.8 | 151.2 | 148.3 | 149.8 | 150.7 | 146.8 | 157.6 | 136.1 | 148.7 |

15.—Index Numbers of Average Wage Rates by Industry 1953-56

(1949=100)

| Industry | 1953 | 1954 | 1955 | 1956 |
|---|--------------|--------------|--------------|--------------|
| Logging..... | 135.5 | 138.0 | 138.2 | 160.8 |
| Eastern Canada..... | 135.2 | 137.8 | 136.9 | 163.0 |
| British Columbia, coastal..... | 136.9 | 138.9 | 143.7 | 151.2 |
| Mining..... | 129.7 | 132.6 | 134.9 | 142.4 |
| Metal mining..... | 132.3 | 136.7 | 140.3 | 150.8 |
| Gold mining..... | 120.7 | 125.4 | 126.0 | 141.4 |
| Other metal mining..... | 139.4 | 143.7 | 149.1 | 156.6 |
| Coal mining..... | 124.0 | 123.5 | 122.8 | 123.6 |
| Manufacturing..... | 134.6 | 138.5 | 142.2 | 149.8 |
| Foods and beverages..... | 131.2 | 135.5 | 140.3 | 147.9 |
| Slaughtering and meat packing..... | 136.3 | 138.5 | 144.2 | 151.2 |
| Dairy products..... | 127.9 | 132.6 | 138.1 | 143.7 |
| Canned and cured fish..... | 118.3 | 124.5 | 125.8 | 135.6 |
| Canned and preserved fruits and vegetables..... | 121.4 | 121.2 | 127.9 | 133.1 |
| Flour mills..... | 143.4 | 150.0 | 155.6 | 158.7 |
| Biscuits and crackers..... | 135.9 | 146.3 | 149.4 | 156.5 |
| Bread and other bakery products..... | 130.6 | 134.6 | 139.4 | 150.0 |
| Breweries..... | 148.1 | 152.9 | 157.9 | 168.6 |
| Confectionery..... | 137.2 | 141.2 | 145.4 | 153.7 |
| Tobacco and tobacco products..... | 152.0 | 155.0 | 160.3 | 164.8 |
| Rubber products..... | 134.9 | 138.1 | 139.6 | 145.0 |
| Leather products..... | 129.9 | 133.1 | 134.5 | 143.8 |
| Boots and shoes..... | 129.9 | 133.2 | 134.2 | 144.6 |
| Leather tanneries..... | 129.9 | 132.6 | 135.8 | 140.5 |
| Textile products (except clothing)..... | 128.1 | 129.5 | 131.0 | 135.7 |
| Cotton yarn and broad woven goods..... | 128.7 | 129.5 | 131.5 | 138.6 |
| Woolen and worsted woven goods and yarn..... | 131.6 | 134.6 | 137.3 | 139.7 |
| Synthetic and silk textiles..... | 124.3 | 125.4 | 125.3 | 128.1 |
| Clothing (textile and fur)..... | 124.9 | 126.8 | 129.7 | 136.4 |
| Men's clothing..... | 130.3 | 132.3 | 134.7 | 143.4 |
| Men's and boys' suits and overcoats..... | 130.0 | 130.8 | 133.3 | 143.4 |
| Men's fine shirts..... | 133.0 | 136.2 | 136.8 | 137.8 |
| Work clothing and sportswear..... | 129.0 | 132.8 | 136.6 | 147.6 |
| Women's clothing..... | 113.4 | 113.7 | 121.2 | 125.0 |
| Women's and misses' coats and suits..... | 110.9 | 119.5 | 125.2 | 126.7 |
| Women's and misses' dresses..... | 115.0 | 110.2 | 118.8 | 123.9 |
| Hosiery and other knitted goods..... | 132.6 | 137.0 | 135.0 | 141.8 |
| Fur goods..... | 118.1 | 118.2 | 122.4 | 129.8 |

15.—Index Numbers of Average Wage Rates by Industry 1953-56—concluded

| Industry | 1953 | 1954 | 1955 | 1956 |
|---|--------------|--------------|--------------|--------------|
| Manufacturing—concluded | | | | |
| Wood products..... | 131.4 | 132.6 | 136.4 | 142.9 |
| Sash and door, and planing mills..... | 131.7 | 135.2 | 138.0 | 144.4 |
| Sawmills..... | 133.4 | 134.3 | 138.1 | 144.6 |
| Wooden furniture..... | 126.0 | 126.8 | 131.1 | 137.5 |
| Paper products..... | 138.4 | 145.5 | 151.7 | 162.7 |
| Paper boxes and containers..... | 131.0 | 138.2 | 142.0 | 149.3 |
| Pulp and paper..... | 139.8 | 146.9 | 153.6 | 165.2 |
| Pulp..... | 138.9 | 144.2 | 150.9 | 162.0 |
| Newsprint..... | 138.5 | 144.4 | 151.8 | 162.7 |
| Paper other than newsprint..... | 136.2 | 147.4 | 155.1 | 165.3 |
| Printing, publishing, and allied trades..... | 137.3 | 142.8 | 146.9 | 152.5 |
| Printing and publishing other than daily newspapers..... | 134.3 | 139.0 | 141.6 | 146.7 |
| Daily newspapers..... | 142.4 | 149.4 | 155.8 | 162.5 |
| Iron and steel products..... | 139.9 | 143.3 | 148.0 | 156.4 |
| Agricultural implements..... | 138.9 | 142.5 | 144.6 | 143.5 |
| Heating and cooking apparatus..... | 139.4 | 145.2 | 149.3 | 161.4 |
| Household, office, store and industrial machinery..... | 137.8 | 143.5 | 147.5 | 153.5 |
| Iron castings..... | 139.2 | 140.6 | 145.1 | 153.9 |
| Machine shop products..... | 143.5 | 148.0 | 150.4 | 156.3 |
| Primary iron and steel..... | 137.3 | 140.1 | 148.9 | 165.3 |
| Sheet metal products..... | 147.5 | 150.8 | 150.8 | 157.9 |
| Transportation equipment..... | 134.5 | 140.0 | 142.3 | 149.9 |
| Aircraft and parts..... | 141.8 | 154.2 | 158.3 | 163.6 |
| Auto repair and garages..... | 137.4 | 145.1 | 144.8 | 155.6 |
| Motor vehicles..... | 129.8 | 130.0 | 134.1 | 142.7 |
| Motor vehicle parts and accessories..... | 140.5 | 144.5 | 147.1 | 157.4 |
| Railroad and rolling-stock equipment..... | 128.4 | 134.1 | 137.1 | 140.2 |
| Shipbuilding and repairing..... | 136.2 | 140.1 | 144.6 | 148.0 |
| Brass and copper products..... | 142.9 | 145.4 | 149.4 | 153.7 |
| Electrical apparatus and supplies..... | 134.6 | 139.5 | 142.8 | 149.5 |
| Heavy electrical machinery and equipment..... | 135.6 | 142.4 | 143.3 | 148.9 |
| Radios and radio parts..... | 134.1 | 133.0 | 138.8 | 145.3 |
| Refrigerators, vacuum cleaners and miscellaneous electrical products..... | 134.5 | 140.4 | 143.5 | 151.0 |
| Clay products..... | 138.6 | 144.7 | 149.2 | 161.0 |
| Petroleum refining and products..... | 143.4 | 147.5 | 154.0 | 164.0 |
| Chemical products..... | 139.6 | 146.2 | 150.3 | 160.2 |
| Acids, alkalis, and salts..... | 142.8 | 147.9 | 153.2 | 164.2 |
| Medicinal, pharmaceutical, and toilet preparations..... | 135.5 | 141.4 | 144.5 | 155.5 |
| Paints and varnishes..... | 141.9 | 150.9 | 155.0 | 162.6 |
| Durable goods ¹ | 136.3 | 140.0 | 143.7 | 151.2 |
| Non-durable goods ¹ | 132.8 | 136.9 | 140.7 | 148.3 |
| Construction (buildings and structures only)..... | 136.2 | 140.0 | 145.4 | 150.7 |
| Transportation, Storage and Communication..... | 136.9 | 140.6 | 142.9 | 152.0 |
| Transportation..... | 136.9 | 139.5 | 141.1 | 151.0 |
| Railways..... | 137.2 | 137.8 | 137.8 | 146.3 |
| Urban and suburban transportation systems..... | 135.0 | 140.2 | 143.5 | 153.3 |
| Truck transportation..... | 136.7 | 144.1 | 149.0 | 158.3 |
| Water transportation..... | 136.4 | 139.9 | 142.1 | 164.7 |
| Storage (terminal grain elevators only)..... | 137.0 | 140.2 | 148.0 | 154.7 |
| Communication (telephone only)..... | 136.6 | 147.6 | 152.8 | 157.6 |
| Electric Light and Power..... | 145.5 | 149.7 | 158.1 | 169.7 |
| Trade..... | 132.2 | 137.8 | 142.2 | 146.2 |
| Wholesale trade..... | 135.8 | 142.8 | 148.5 | 157.5 |
| Retail trade..... | 130.8 | 135.8 | 139.8 | 141.8 |
| Personal Service..... | 123.3 | 128.6 | 132.3 | 136.1 |
| Laundries..... | 125.8 | 132.3 | 134.0 | 140.9 |
| Restaurants..... | 122.9 | 128.0 | 132.0 | 135.3 |
| General Index, All Industries..... | 133.6 | 137.9 | 141.7 | 148.7 |

¹ These groups are composites of the manufacturing groups listed above. Durable goods include wood products, iron and steel products, transportation equipment, brass and copper products, electrical apparatus and supplies and clay products; non-durable goods include the remaining manufacturing industries.

16.—Hourly Wage Rates for Selected Occupations in Manufacturing by Province, October 1956

(Time Work)

| Industry and Occupation | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. |
|--|-------------------|------|------|------|------|-------|-------|------|
| | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| Industrial Machinery— | | | | | | | | |
| Machinist..... | .. | .. | 1.52 | 1.78 | 1.68 | .. | .. | 2.03 |
| Bench..... | .. | .. | 1.34 | 1.67 | .. | .. | .. | .. |
| Moulder— | | | | | | | | |
| Floor..... | .. | .. | 1.68 | 1.77 | .. | .. | .. | .. |
| Machine..... | .. | .. | 1.15 | 1.59 | .. | .. | .. | .. |
| Newsprint— | | | | | | | | |
| Machine tender..... | 3.38 ¹ | .. | 3.30 | 3.25 | .. | .. | .. | 3.32 |
| Roll-finisher..... | 1.75 ¹ | .. | 1.73 | 1.72 | .. | .. | .. | 1.76 |
| Sawmills— | | | | | | | | |
| Edgerman..... | 0.99 | 1.05 | 1.12 | 1.31 | .. | .. | 1.32 | 1.84 |
| Lumber grader..... | .. | 1.06 | 1.02 | 1.32 | .. | .. | 1.14 | 1.77 |
| Slaughtering and Meat Packing— | | | | | | | | |
| Butcher..... | .. | .. | 1.70 | 1.52 | 1.78 | 1.63 | 1.78 | 1.84 |
| Truck driver..... | 1.39 ² | .. | 1.66 | 1.63 | 1.73 | 1.67 | 1.69 | 1.79 |
| Woollen and Worsted Woven Goods and Yarn— | | | | | | | | |
| Woollen spinner, male..... | .. | .. | 0.96 | 1.06 | .. | .. | .. | .. |
| Weaver, female..... | .. | .. | .. | 1.07 | .. | .. | .. | .. |

¹ Atlantic Provinces.² Maritime Provinces.

17.—Hourly Wage Rates for Selected Occupations in Certain Cities, Oct. 1, 1956

(Time Work)

| Industry and Occupation | Halifax | Montreal | Toronto | Winnipeg | Vancouver |
|--|---------|-------------------|---------|----------|-----------|
| | \$ | \$ | \$ | \$ | \$ |
| Construction (buildings and structures only) | | | | | |
| Bricklayer and mason..... | 2.02 | 2.10 | 2.61 | 2.25 | 2.50 |
| Carpenter..... | 1.77 | 1.90 | 2.40 | 2.05 | 2.25 |
| Electrician..... | 1.87 | 2.00 | 2.65 | 2.20 | 2.42 |
| Painter..... | 1.53 | 1.80 | 2.05 | 1.80 | 2.19 |
| Plasterer..... | 1.91 | 2.12 | 2.45 | 2.25 | 2.35 |
| Plumber..... | 1.86 | 2.12 | 2.44 | 2.25 | 2.55 |
| Sheet metal worker..... | 1.63 | 1.90 | 2.40 | 2.00 | 2.35 |
| Labourer..... | 1.26 | 1.30 | 1.45 | 1.20 | 1.66 |
| Manufacturing— | | | | | |
| Labourer, male..... | 1.18 | 1.31 | 1.45 | 1.30 | 1.61 |
| Urban and Suburban Transportation Systems— | | | | | |
| Operator, bus, streetcar, and trolley bus ¹ | 1.49 | 1.55 ² | 1.71 | 1.63 | 1.82 |
| Body repairman streetcar and bus..... | — | 1.67 | 1.86 | 1.73 | 1.97 |
| Repairman streetcar and trolley bus..... | 1.57 | 1.62 | 1.80 | 1.68 | 1.91 |
| Electrician..... | 1.68 | 1.66 | 1.83 | 1.73 | 1.96 |
| Labourer..... | 1.38 | 1.29 | 1.50 | 1.30 | 1.62 |
| Printing, Publishing and Allied Trades— | | | | | |
| Daily Newspapers— | | | | | |
| Compositor, hand and linotype operator..... | 2.40 | 2.81 | 3.01 | 1.99 | 2.63 |
| Pressman..... | 2.27 | 2.70 | 3.01 | 1.94 | 2.63 |
| Other than Daily Newspapers— | | | | | |
| Bindery worker, hand, female..... | 0.67 | 1.03 | 1.12 | 0.96 | 1.36 |
| Compositor, hand..... | 1.52 | 2.18 | 2.33 | 1.91 | 2.31 |
| Linotype operator..... | — | 2.25 | 2.32 | 1.93 | 2.30 |
| Pressman, cylinder..... | 1.32 | 2.08 | 2.22 | 1.89 | 2.30 |
| Pressman, platen..... | 1.27 | 1.91 | 2.12 | 1.85 | 2.15 |
| Pressman offset..... | — | 2.46 | 2.52 | 2.00 | 2.44 |

¹ Maximum rates based on length of service.² Operators of two-man streetcars excluded.

18.—Average Standard or Normal Hours of Labour per Week for Employees in Selected Industries by Province 1952-56

| Industry and Year | Atlantic Prov- inces ¹ | Quebec | Ontario | Manitoba | Saskat- chewan | Alberta | British Columbia |
|--|---|--------|---------|----------|-------------------|---------|---------------------|
| | hrs. | hrs. | hrs. | hrs. | hrs. | hrs. | hrs. |
| Work clothing.....1952 ² | 43.6 | 45.0 | 41.0 | 40.0 | .. | 40.0 | 42.7 |
|1953 ² | 43.8 | 43.6 | 41.1 | 40.4 | .. | 40.0 | 40.0 |
|1954 | 44.0 | 44.2 | 40.9 | 40.0 | .. | 40.0 | 40.9 |
|1955 | 44.0 | 43.1 | 40.7 | 40.0 | .. | .. | 40.5 |
|1956 | 41.7 | 43.4 | 40.8 | 40.0 | .. | 40.0 | 40.4 |
| Pulp and paper.....1952 ² | 47.0 | 48.2 | 42.8 | 40.0 | .. | .. | 40.0 |
|1953 ² | 44.2 | 46.4 | 41.3 | .. | .. | .. | 40.0 |
|1954 | 41.1 | 41.6 | 40.6 | 40.0 | .. | .. | 40.0 |
|1955 | 41.3 | 40.7 | 40.5 | .. | .. | .. | 40.0 |
|1956 | 41.3 | 40.7 | 40.6 | .. | .. | .. | 40.0 |
| Wood products.....1952 ² | 50.4 | 51.7 | 46.2 | 44.2 | 44.0 | 45.7 | 40.6 |
|1953 ² | 49.9 | 50.7 | 45.7 | 45.3 | 45.4 | 46.1 | 40.4 |
|1954 | 51.0 | 51.2 | 46.0 | 44.2 | 44.0 | 45.5 | 40.7 |
|1955 | 50.2 | 50.0 | 45.8 | 44.2 | 44.0 | 44.7 | 40.6 |
|1956 | 50.1 | 50.0 | 45.4 | 44.2 | 44.0 | 44.8 | 40.3 |
| Meat products.....1952 ² | 40.8 | 42.5 | 41.6 | 40.1 | 40.6 | 40.1 | 40.0 |
|1953 ² | 41.4 | 41.7 | 41.8 | 40.1 | 40.4 | 40.0 | 40.0 |
|1954 | 40.9 | 42.0 | 41.5 | 40.2 | 40.3 | 40.0 | 40.0 |
|1955 | 40.6 | 41.9 | 41.8 | 40.3 | 40.3 | 40.0 | 40.0 |
|1956 | 40.4 | 41.6 | 41.9 | 40.2 | 40.2 | 40.0 | 40.0 |
| Iron and its products.....1952 ² | 41.7 | 44.8 | 41.4 | 43.8 | 44.0 | 43.1 | 40.1 |
|1953 ² | 41.0 | 44.3 | 41.4 | 44.3 | 44.0 | 41.7 | 40.8 |
|1954 | 40.7 | 43.2 | 41.0 | 43.7 | 42.8 | 41.6 | 40.1 |
|1955 | 40.6 | 43.2 | 40.9 | 42.8 | 42.3 | 41.2 | 40.2 |
|1956 | 40.4 | 43.0 | 40.8 | 41.2 | 41.0 | 41.5 | 40.1 |
| Woollen yarn and cloth.....1952 ² | 46.1 | 47.5 | 45.1 | 45.3 | 45.3 | 45.3 | 45.3 |
|1953 ² | 46.3 | 46.6 | 45.7 | 42.2 | .. | .. | 42.2 |
|1954 | 44.2 | 45.9 | 45.3 | 42.5 | .. | .. | 42.3 |
|1955 | 43.8 | 46.5 | 44.7 | 40.3 | .. | .. | 42.3 |
|1956 | 43.8 | 46.4 | 44.7 | 41.1 | .. | .. | 42.3 |

¹ Exclusive of Newfoundland.² Male employees only.

19.—Summary of Working Conditions of Plant Employees in Manufacturing Industries as at Apr. 1, 1953-56

SOURCE: Annual Survey of Working Conditions, Economics and Research Branch, Department of Labour.

| Item | Apr. 1, 1953 | Apr. 1, 1954 | Apr. 1, 1955 | Apr. 1, 1956 |
|-----------------------------------|-----------------|-------------------|-------------------|-------------------|
| Coverage.....No. | 802,000 | 803,000 | 765,000 | 800,000 |
| PERCENTAGES OF PLANT EMPLOYEES | | | | |
| Standard Weekly Hours— | | | | |
| 40 and under..... | 43.3 | 52.8 | 57.9 | 62.1 |
| Over 40 and under 44..... | 15.3 | 13.9 | 11.5 | 11.2 |
| 44..... | 10.1 | 7.7 | 6.8 | 5.8 |
| 45..... | 15.4 | 12.5 | 11.2 | 9.5 |
| Over 45 and under 48..... | 2.0 | 1.7 | 1.8 | 1.7 |
| 48..... | 9.6 | 7.2 | 7.1 | 6.0 |
| Over 48..... | 4.3 | 4.2 | 3.7 | 3.7 |
| Employees on a five-day week..... | 78.5 | 82.5 ¹ | 83.9 ¹ | 85.5 ¹ |

For footnote, see end of table.

**19.—Summary of Working Conditions of Plant Employees in Manufacturing Industries
as at Apr. 1, 1953-56—concluded**

| Item | Apr. 1, 1953 | Apr. 1, 1954 | Apr. 1, 1955 | Apr. 1, 1956 |
|---|--------------------------------|-----------------|-------------------|-----------------|
| | PERCENTAGES OF PLANT EMPLOYEES | | | |
| Premium Rates— | | | | |
| Employees in establishments where higher than straight-time rates are paid after daily or weekly hours..... | 93.4 | .. | .. | .. |
| Employees in establishments where time and one-half is paid after daily or weekly hours..... | 92.2 | .. | 88.6 | .. |
| Shift Differentials— | | | | |
| Employees in establishments where shift work is performed | 71.0 | .. | 78.0 ² | .. |
| Employees in establishments where shift differentials are paid | 66.2 | .. | 68.6 | .. |
| Paid Statutory Holidays— | | | | |
| Employees receiving paid statutory holidays..... | 94.7 | 93.6 | 94.4 | 93.8 |
| Employees being paid for the following number of statutory holidays— | | | | |
| 1 to 5..... | 17.0 | 17.2 | 14.3 | 11.8 |
| 6..... | 14.5 | 13.1 | 12.6 | 8.4 |
| 7..... | 12.6 | 11.3 | 11.2 | 12.0 |
| 8..... | 41.4 | 43.4 | 47.3 | 51.5 |
| More than 8..... | 9.2 | 8.6 | 9.0 | 10.1 |
| Vacations with Pay— | | | | |
| Eligible for at least one week with pay..... | 99.3 | 99.2 | 99.7 | .. |
| One week with pay..... | 91.1 | 89.3 | 90.3 | 90.0 |
| After one year or less..... | 87.3 | 85.8 | 89.3 | 89.1 |
| Service not specified..... | 3.8 | 3.5 | 1.0 | 0.9 |
| Eligible for two weeks with pay..... | 92.6 | 92.0 | 92.4 | 92.3 |
| After: 1 year or less..... | 14.9 | 15.5 | 15.6 | 15.5 |
| 2 years..... | 9.6 | 10.3 | 11.4 | 11.5 |
| 3 years..... | 22.5 | 25.5 | 27.0 | 27.9 |
| 5 years..... | 40.4 | 35.2 | 34.7 | 33.7 |
| Other..... | 5.2 | 5.5 | 3.7 | 3.7 |
| Eligible for three weeks with pay..... | 50.8 | 53.6 | 60.0 | 62.9 |
| After: 15 years..... | 28.8 | 36.9 | 43.7 | 47.0 |
| 20 years..... | 10.9 | 6.9 | 6.4 | 5.6 |
| Other..... | 11.1 | 9.8 | 9.9 | 10.3 |
| Eligible for four weeks with pay..... | 4.0 | 5.0 | 6.8 | 10.2 |
| After: 25 years..... | 3.3 | 4.1 | 5.8 | 7.6 |
| Other..... | 0.7 | 0.9 | 1.0 | 2.6 |
| Other vacation periods..... | 0.9 | .. | .. | .. |
| Shutdown for Vacation— | | | | |
| Employees in establishments reporting a shutdown period | 61.5 | 58.9 | .. | .. |
| Employees in establishments reporting a shutdown period of two weeks..... | 47.6 | 46.9 | .. | .. |
| Rest Periods— | | | | |
| Employees in establishments reporting rest periods..... | .. | 61.7 | .. | 65.7 |
| Employees in establishments receiving two periods of 10 minutes each..... | .. | 42.7 | .. | 42.7 |
| Sick Leave— | | | | |
| Employees in establishments reporting a provision for sick leave..... | 12.7 | .. | .. | .. |

¹ Includes a small number of employees in plants reporting alternate weeks of 5 and 5½ days. ² Establishments accounting for 63 p.c. of the employees reported regular shift work; in those employing 15 p.c., shifts were worked occasionally.

20.—Summary of Working Conditions of Office Employees in Manufacturing Industries as at Apr. 1, 1953-56

SOURCE: Annual Survey of Working Conditions, Economics and Research Branch, Department of Labour.

| Item | Apr. 1, 1953 | Apr. 1, 1954 | Apr. 1, 1955 | Apr. 1, 1956 |
|--|-----------------|-------------------|-------------------|-------------------|
| Coverage.....No. | 183,000 | 196,000 | 196,000 | 205,000 |
| PERCENTAGES OF OFFICE EMPLOYEES | | | | |
| Standard Weekly Hours— | | | | |
| Under 37½..... | 19.4 | 21.0 | 21.9 | 21.9 |
| 37½..... | 30.1 | 34.9 | 38.2 | 40.8 |
| Over 37½ and under 40..... | 19.1 | 15.0 | 12.0 | 9.6 |
| 40..... | 21.2 | 21.0 | 20.0 | 21.2 |
| Over 40..... | 10.2 | 8.1 | 7.9 | 6.5 |
| Employees on a five-day week..... | 84.1 | 88.5 ¹ | 89.1 ¹ | 90.9 ¹ |
| Compensation for Overtime Work— | | | | |
| Employees in establishments reporting— | | | | |
| Compensating time off..... | 11.8 | .. | .. | .. |
| Remuneration of straight-time rates..... | 21.4 | .. | .. | .. |
| Remuneration at higher than straight-time rates..... | 21.1 | .. | .. | .. |
| Meal allowances ² | 41.4 | .. | .. | .. |
| Other provisions..... | 2.1 | .. | .. | .. |
| Paid Statutory Holidays— | | | | |
| Employees receiving paid statutory holidays..... | 99.5 | 98.9 | 99.1 | 99.0 |
| Employees being paid for the following number of statutory holidays— | | | | |
| 1 to 6..... | 6.9 | 6.5 | 6.8 | 4.2 |
| 7..... | 12.2 | 11.4 | 10.7 | 9.7 |
| 8..... | 57.4 | 61.0 | 61.1 | 60.8 |
| 9..... | 16.1 | 13.6 | 14.9 | 17.5 |
| More than 9..... | 6.9 | 6.4 | 5.6 | 6.8 |
| Vacations with Pay— | | | | |
| Eligible for at least one week with pay..... | 99.7 | 99.8 | 100.0 | 100.0 |
| After 1 year or less..... | 56.1 | 65.0 | 69.4 | 69.4 |
| Service not specified..... | 6.8 | 1.8 | 0.8 | 0.3 |
| Eligible for two weeks with pay..... | 97.7 | 96.0 | 98.6 | 98.7 |
| After: 1 year or less..... | 88.5 | 87.0 | 89.3 | 90.1 |
| 2 years..... | 4.6 | 5.0 | 5.3 | 5.2 |
| 3 years..... | 0.7 | 0.8 | 1.0 | 0.9 |
| 5 years..... | 1.9 | 1.6 | 1.3 | 2.0 |
| Other..... | 2.0 | 1.6 | 1.7 | 0.5 |
| Eligible for three weeks with pay..... | 60.6 | 63.8 | 69.4 | 71.9 |
| After: 10 years or fewer..... | 4.0 | 5.4 | 5.4 | 10.3 |
| 15 years..... | 32.1 | 43.4 | 51.0 | 51.3 |
| 20 years..... | 14.5 | 7.2 | 6.7 | 5.5 |
| Other..... | 10.0 | 7.8 | 6.3 | 4.8 |
| Eligible for four weeks with pay..... | 4.4 | 5.5 | 7.6 | 12.9 |
| After: 25 years..... | 3.2 | 4.2 | 6.1 | 9.1 |
| Other..... | 1.2 | 1.3 | 1.5 | 3.8 |
| Other vacation periods..... | 0.1 | .. | .. | .. |
| Sick Leave— | | | | |
| Employees in establishments reporting a provision for sick leave..... | 93.7 | .. | 93.4 | .. |
| Group Sickness or Accident Insurance Plan— | | | | |
| Employees in establishments reporting a group sickness or accident insurance plan..... | .. | .. | .. | .. |
| Group Life Insurance— | | | | |
| Employees in establishments reporting group life insurance.. | .. | 87.4 | 90.1 | 90.5 |
| Pension Plan— | | | | |
| Employees in establishments reporting a pension plan..... | 64.3 | 71.7 | 74.4 | 78.4 |

¹ Includes a small number of employees in establishments reporting alternate weeks of 5 and 5½ days. ² Meal allowances are sometimes reported as given in addition to other types of overtime compensation; or as the sole type of overtime compensation.

Wages of Farm Labour.—Wage rates for farm help have been increasing slightly over the past few years. Moderate gains were recorded in 1952 and 1953 and after levelling off in 1954 and 1955 the upward trend was resumed in 1956. The information on farm wages is provided by volunteer farm correspondents located in all provinces except Newfoundland.

21.—Average Daily and Monthly Wages of Male Farm Help as at Jan. 15, May 15 and Aug. 15, 1952-56

NOTE.—Figures from 1940 are given in the corresponding table of previous Year Books beginning with the 1943-44 edition.

| Province and Year | January 15 | | | | May 15 | | | | August 15 | | | |
|--------------------------|------------|---------------|------------|---------------|------------|---------------|------------|---------------|------------|---------------|------------|---------------|
| | Daily | | Monthly | | Daily | | Monthly | | Daily | | Monthly | |
| | With Board | Without Board | With Board | Without Board | With Board | Without Board | With Board | Without Board | With Board | Without Board | With Board | Without Board |
| | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| Maritimes— | | | | | | | | | | | | |
| 1952..... | 4.30 | 5.40 | 89.00 | 118.00 | 4.30 | 5.30 | 92.00 | 121.00 | 4.50 | 5.60 | 91.00 | 122.00 |
| 1953..... | 4.30 | 5.20 | 86.00 | 114.00 | 4.30 | 5.30 | 87.00 | 115.00 | 4.60 | 5.50 | 85.00 | 118.00 |
| 1954..... | 4.30 | 5.40 | 89.00 | 120.00 | 4.20 | 5.10 | 87.00 | 111.00 | 4.50 | 5.60 | 92.00 | 123.00 |
| 1955..... | 4.40 | 5.40 | 86.00 | 114.00 | 4.50 | 5.40 | 92.00 | 116.00 | 4.80 | 5.70 | 98.00 | 123.00 |
| 1956..... | 4.60 | 5.60 | 90.00 | 118.00 | 4.80 | 5.70 | 96.00 | 119.00 | 5.00 | 5.90 | 102.00 | 125.00 |
| Quebec— | | | | | | | | | | | | |
| 1952..... | 4.70 | 5.70 | 96.00 | 129.00 | 4.60 | 5.70 | 95.00 | 132.00 | 5.10 | 6.20 | 101.00 | 136.00 |
| 1953..... | 4.70 | 5.70 | 90.00 | 125.00 | 4.80 | 6.00 | 95.00 | 127.00 | 5.10 | 6.40 | 97.00 | 131.00 |
| 1954..... | 4.60 | 5.90 | 93.00 | 128.00 | 4.60 | 5.80 | 91.00 | 125.00 | 4.80 | 6.00 | 94.00 | 127.00 |
| 1955..... | 4.60 | 5.90 | 91.00 | 125.00 | 4.60 | 5.90 | 92.00 | 126.00 | 5.10 | 6.20 | 96.00 | 131.00 |
| 1956..... | 4.70 | 5.90 | 92.00 | 123.00 | 5.10 | 6.30 | 100.00 | 135.00 | 5.50 | 6.80 | 108.00 | 147.00 |
| Ontario— | | | | | | | | | | | | |
| 1952..... | 4.70 | 5.90 | 87.00 | 121.00 | 4.80 | 5.90 | 88.00 | 121.00 | 5.40 | 6.60 | 91.00 | 124.00 |
| 1953..... | 4.90 | 6.20 | 83.00 | 119.00 | 5.10 | 6.30 | 90.00 | 123.00 | 5.60 | 7.10 | 93.00 | 125.00 |
| 1954..... | 4.90 | 6.20 | 84.00 | 118.00 | 5.00 | 6.20 | 87.00 | 118.00 | 5.40 | 6.80 | 88.00 | 125.00 |
| 1955..... | 4.90 | 6.10 | 84.00 | 115.00 | 5.20 | 6.60 | 91.00 | 123.00 | 5.50 | 6.80 | 90.00 | 125.00 |
| 1956..... | 5.20 | 6.60 | 86.00 | 126.00 | 5.50 | 6.80 | 96.00 | 131.00 | 6.00 | 7.60 | 104.00 | 138.00 |
| Manitoba— | | | | | | | | | | | | |
| 1952..... | 4.40 | 5.40 | 80.00 | 107.00 | 5.10 | 6.40 | 102.00 | 134.00 | 6.20 | 7.90 | 107.00 | 141.00 |
| 1953..... | 4.50 | 5.50 | 76.00 | 108.00 | 5.30 | 6.90 | 105.00 | 140.00 | 6.00 | 8.10 | 110.00 | 141.00 |
| 1954..... | 4.60 | 5.80 | 78.00 | 110.00 | 5.00 | 6.20 | 104.00 | 135.00 | 5.90 | 7.20 | 105.00 | 130.00 |
| 1955..... | 4.20 | 5.80 | 75.00 | 114.00 | 5.10 | 6.70 | 99.00 | 127.00 | 5.80 | 7.10 | 102.00 | 128.00 |
| 1956..... | 4.60 | 6.80 | 78.00 | 116.00 | 5.50 | 6.90 | 110.00 | 148.00 | 6.40 | 7.70 | 116.00 | 151.00 |
| Saskatchewan— | | | | | | | | | | | | |
| 1952..... | 4.10 | 5.30 | 75.00 | 114.00 | 5.40 | 6.60 | 113.00 | 146.00 | 7.30 | 8.30 | 119.00 | 151.00 |
| 1953..... | 4.70 | 6.10 | 81.00 | 117.00 | 6.00 | 7.50 | 122.00 | 148.00 | 6.60 | 8.10 | 124.00 | 152.00 |
| 1954..... | 4.90 | 6.10 | 80.00 | 111.00 | 5.80 | 7.50 | 118.00 | 145.00 | 5.90 | 7.50 | 120.00 | 148.00 |
| 1955..... | 4.30 | 5.80 | 74.00 | 109.00 | 5.40 | 6.80 | 116.00 | 141.00 | 6.20 | 7.90 | 118.00 | 151.00 |
| 1956..... | 4.70 | 6.40 | 77.00 | 115.00 | 5.80 | 6.90 | 120.00 | 150.00 | 6.60 | 8.20 | 127.00 | 159.00 |
| Alberta— | | | | | | | | | | | | |
| 1952..... | 4.50 | 5.50 | 91.00 | 125.00 | 5.70 | 6.90 | 112.00 | 145.00 | 7.00 | 8.10 | 118.00 | 155.00 |
| 1953..... | 5.20 | 6.20 | 96.00 | 131.00 | 6.20 | 7.60 | 115.00 | 154.00 | 6.50 | 8.10 | 122.00 | 156.00 |
| 1954..... | 5.50 | 6.80 | 97.00 | 135.00 | 5.70 | 7.30 | 115.00 | 148.00 | 6.10 | 7.40 | 117.00 | 152.00 |
| 1955..... | 4.70 | 6.00 | 93.00 | 125.00 | 5.50 | 7.30 | 112.00 | 145.00 | 6.10 | 7.50 | 115.00 | 151.00 |
| 1956..... | 5.00 | 6.60 | 94.00 | 130.00 | 6.30 | 7.70 | 122.00 | 160.00 | 6.60 | 8.00 | 123.00 | 157.00 |
| British Columbia— | | | | | | | | | | | | |
| 1952..... | 6.60 | 7.90 | 92.00 | 146.00 | 5.90 | 7.20 | 107.00 | 152.00 | 6.40 | 7.40 | 112.00 | 145.00 |
| 1953..... | 6.80 | 8.60 | 110.00 | 146.00 | 6.12 | 7.90 | 108.00 | 160.00 | 5.75 | 7.00 | 110.00 | 146.00 |
| 1954..... | 6.20 | 8.30 | 99.00 | 140.00 | 5.90 | 7.50 | 111.00 | 156.00 | 6.80 | 8.00 | 120.00 | 159.00 |
| 1955..... | 6.00 | 8.00 | 100.00 | 140.00 | 6.60 | 7.90 | 114.00 | 153.00 | 6.70 | 8.00 | 115.00 | 160.00 |
| 1956..... | 6.20 | 8.00 | 101.00 | 147.00 | 6.60 | 7.90 | 115.00 | 154.00 | 7.60 | 8.50 | 120.00 | 165.00 |
| Totals— | | | | | | | | | | | | |
| 1952..... | 4.60 | 5.70 | 86.00 | 121.00 | 4.90 | 6.00 | 101.00 | 135.00 | 5.60 | 6.70 | 105.00 | 139.00 |
| 1953..... | 4.70 | 5.80 | 87.00 | 122.00 | 5.00 | 6.20 | 105.00 | 138.00 | 5.50 | 6.80 | 107.00 | 140.00 |
| 1954..... | 4.60 | 5.90 | 88.00 | 122.00 | 4.80 | 6.00 | 102.00 | 133.00 | 5.10 | 6.40 | 106.00 | 139.00 |
| 1955..... | 4.60 | 5.80 | 85.00 | 119.00 | 4.90 | 6.10 | 103.00 | 133.00 | 5.40 | 6.60 | 103.00 | 136.00 |
| 1956..... | 4.80 | 6.10 | 86.00 | 123.00 | 5.30 | 6.40 | 108.00 | 142.00 | 5.80 | 7.00 | 115.00 | 149.00 |

Section 5.—Unemployment Insurance

The Unemployment Insurance Act, which came into operation on July 1, 1941, applies to all persons employed under a contract of service, except the following: employment in specified industries or occupations such as agriculture, horticulture, forestry (effective Jan. 1, 1956, coverage was also extended to certain employments in these three industries); the Canadian Armed Forces; the permanent public service of the Federal Government; provincial government employees except where insured with the concurrence of the government of the province; certified permanent employees of municipal or public authorities; private domestic service; private duty nursing; teaching; certain director-officers of corporations; workers on other than an hourly, daily or piece rate, earning more than \$4,800 a year unless they elect to continue as insured persons; employees in a charitable institution or in a hospital not carried on for purpose of gain except where the institution or hospital consents to insure certain groups or classes of persons with the concurrence of the Commission. All persons paid by the hour, day, or at a piece-rate (including a mileage rate) are insured regardless of amount of earnings, together with all employees who receive \$4,800 or less at weekly, monthly, yearly or commission rates.

Unemployment Insurance Fund.—Employers and employees contribute to the Unemployment Insurance Fund, the total paid by each group being equal. The Federal Government contributes an amount equal to one-fifth of the combined employer-employee contributions and assumes the cost of administration. From July 1, 1941 to Mar. 31, 1956, employers and employees contributed \$1,569,863,590 to the Fund and the Federal Government added \$313,982,080. Interest and profit on sale of securities amounted to \$197,095,791 and fines of \$250,318 made a total revenue of \$2,081,191,779.

Benefits first became payable on Jan. 27, 1942, and from that date to Mar. 31, 1956, total benefit payments amounted to \$1,226,993,261, leaving a balance of \$854,198,519 in the Fund. Reserves of the Fund are invested in Government of Canada bonds and, as at Mar. 31, 1956, the par value of bonds held amounted to \$853,253,000.

WEEKLY RATES OF CONTRIBUTION AND BENEFIT UNDER THE UNEMPLOYMENT INSURANCE ACT, EFFECTIVE OCT. 2, 1955

| Range of Earnings | Weekly Contributions ¹ | | Value of Weekly Stamp ² | Range of Average Weekly Contributions | Weekly Rate of Benefit ³ | |
|--------------------------------------|-----------------------------------|----------|------------------------------------|---------------------------------------|-------------------------------------|-----------------------|
| | Employer | Employee | | | Person Without Dependant | Person With Dependant |
| | cts. | cts. | cts. | cts. | \$ | \$ |
| Less than \$ 9.00 ⁴ | 8 | 8 | 16 | Less than 20..... | 6 | 8 |
| \$ 9.00 to \$14.99..... | 16 | 16 | 32 | 20 and under 27..... | 9 | 12 |
| \$15.00 to \$20.99..... | 24 | 24 | 48 | 27 " " 33..... | 11 | 15 |
| \$21.00 to \$26.99..... | 30 | 30 | 60 | 33 " " 39..... | 13 | 18 |
| \$27.00 to \$32.99..... | 36 | 36 | 72 | 39 " " 45..... | 15 | 21 |
| \$33.00 to \$38.99..... | 42 | 42 | 84 | 45 " " 50..... | 17 | 24 |
| \$39.00 to \$44.99..... | 48 | 48 | 96 | 50 " " 54..... | 19 | 26 |
| \$45.00 to \$50.99..... | 52 | 52 | 1.04 | 54 " " 58..... | 21 | 28 |
| \$51.00 to \$56.99..... | 56 | 56 | 1.12 | 58 to 60..... | 23 | 30 |
| \$57.00 or over..... | 60 | 60 | 1.20 | | | |

¹ The weekly contribution is based on actual earnings in the week irrespective of the number of days in which the earnings are obtained.

² Unemployment insurance stamps combine both employer and employee contributions.

³ Rates calculated on the average weekly contributions for the last 30 weeks in the 104 weeks preceding claim. Since Oct. 2, 1955, a claimant to qualify for benefit must have at least 30 weekly contributions in the last 104 weeks prior to claim; 8 weeks must be in the last 52 weeks. (These periods of 104 weeks and 52 weeks may be extended under certain circumstances.)

⁴ Employees earning less than \$9 in a week receive one-half of a 32-cent stamp (8 cents from the employer and 8 cents from the employee).

The duration of benefit is related to the contribution history—one week's benefit for every two weeks' contributions in the past 104 weeks with a maximum of 36 weeks. The rate of benefit is determined by the average of the contributions in the past 30 weeks. No benefit is payable in a benefit period until a claimant has served a waiting period equivalent to one full week's benefit.

Disqualifications for benefit include: loss of work owing to a labour dispute in which the contributor is participating or directly interested; unwillingness to accept suitable employment; being an inmate of any prison or any institution supported out of public funds; refusal to attend a course of instruction or training if directed to do so; residence outside Canada unless otherwise prescribed. Disqualification of a claimant for a period not exceeding six weeks may be imposed if an employee is discharged by reason of his own misconduct or leaves the employment voluntarily without just cause or refuses suitable employment.

Seasonal benefit is payable in the period Jan. 1 to Apr. 15 to certain claimants whose benefits have been exhausted or who have insufficient contributions to qualify for regular benefit.

22.—Persons Insured under the Unemployment Insurance Act by Industrial Group and Sex 1955 and 1956

NOTE.—Based on a 10-p.c. sample of contributors and claimants at June 1.

| Industry | 1955 | | 1956 | |
|--|----------------|----------------|----------------|----------------|
| | Male | Female | Male | Female |
| | No. | No. | No. | No. |
| Agriculture | 3,560 | 580 | 5,750 | 650 |
| Forestry and Logging | 74,690 | 1,650 | 122,450 | 3,020 |
| Fishing, Hunting and Trapping | 310 | 1 | 670 | 30 |
| Mining, Quarrying and Oil Wells | 94,720 | 3,840 | 100,840 | 3,970 |
| Metal mining..... | 49,610 | 1,240 | 58,500 | 1,720 |
| Fuels..... | 26,940 | 1,290 | 24,480 | 860 |
| Non-metal mining..... | 9,980 | 150 | 8,320 | 260 |
| Quarrying, clay and sand pits..... | 4,030 | 140 | 4,620 | 110 |
| Prospecting..... | 4,160 | 1,020 | 4,920 | 1,020 |
| Manufacturing | 911,580 | 272,940 | 920,680 | 298,250 |
| Foods and beverages..... | 110,560 | 40,690 | 113,850 | 49,500 |
| Tobacco and tobacco products..... | 3,200 | 4,870 | 3,770 | 5,360 |
| Rubber products..... | 15,280 | 4,810 | 15,410 | 5,040 |
| Leather products..... | 16,170 | 11,710 | 15,500 | 12,820 |
| Textile products, except clothing..... | 38,930 | 22,500 | 36,130 | 22,890 |
| Clothing..... | 32,070 | 67,070 | 29,500 | 70,880 |
| Wood products..... | 104,840 | 9,070 | 106,430 | 9,720 |
| Paper products..... | 72,700 | 12,090 | 72,770 | 12,940 |
| Printing, publishing and allied trades..... | 37,360 | 17,190 | 37,110 | 18,260 |
| Iron and steel products..... | 154,470 | 17,540 | 158,250 | 18,000 |
| Transportation equipment..... | 136,220 | 11,100 | 138,330 | 12,160 |
| Non-ferrous metal products..... | 47,110 | 6,410 | 46,180 | 6,980 |
| Electrical apparatus and supplies..... | 46,650 | 20,020 | 49,240 | 22,820 |
| Non-metallic mineral products..... | 31,930 | 3,570 | 34,790 | 4,320 |
| Products of petroleum and coal..... | 10,410 | 940 | 10,670 | 1,040 |
| Chemical products..... | 37,450 | 13,470 | 36,250 | 13,770 |
| Miscellaneous manufacturing..... | 16,230 | 9,890 | 16,500 | 11,750 |
| Construction | 262,950 | 7,960 | 369,040 | 9,140 |
| General contractors..... | 174,320 | 4,650 | 262,980 | 5,550 |
| Subcontractors..... | 88,660 | 3,310 | 106,060 | 3,590 |
| Transportation, Storage and Communication | 269,150 | 50,510 | 281,280 | 54,760 |
| Transportation..... | 236,210 | 15,280 | 248,830 | 17,560 |
| Storage..... | 12,900 | 2,160 | 10,970 | 1,660 |
| Communication..... | 20,040 | 33,070 | 21,480 | 35,540 |
| Public Utility Operation | 35,840 | 5,040 | 34,260 | 5,510 |
| Trade | 365,040 | 210,260 | 365,670 | 242,410 |
| Wholesale..... | 129,680 | 40,540 | 121,460 | 42,190 |
| Retail..... | 226,360 | 169,720 | 244,210 | 200,220 |
| Finance, Insurance and Real Estate | 47,130 | 76,880 | 46,860 | 48,080 |

¹ Less than an estimated 100 persons.

22.—Persons Insured under the Unemployment Insurance Act by Industrial Group and Sex 1955 and 1956—concluded

| Industry | 1955 | | 1956 | |
|------------------------------------|------------------|----------------|------------------|------------------|
| | Male | Female | Male | Female |
| | No. | No. | No. | No. |
| Service..... | 242,140 | 170,300 | 268,470 | 208,070 |
| Community..... | 15,730 | 17,990 | 19,280 | 23,630 |
| Government..... | 116,330 | 30,950 | 119,840 | 31,040 |
| Recreation..... | 10,680 | 6,560 | 14,170 | 7,450 |
| Business..... | 28,490 | 22,860 | 32,230 | 28,880 |
| Personal..... | 70,910 | 91,940 | 82,950 | 117,070 |
| Unspecified..... | 11,120 | 3,370 | 23,980 | 8,420 |
| Claimants..... | 99,860 | 44,480 | 178,460 | 89,610 |
| Totals, All Industries..... | 2,409,120 | 847,820 | 2,718,410 | 1,007,920 |

23.—Persons Establishing Regular Benefit Periods, Benefit Periods Terminated, and Duration and Amount of Benefit Paid, by Province 1955 and 1956

Note.—Based on a 25-p.c. sample.

| Province | Persons Establishing Benefit Periods | Benefit Periods Terminated | Duration of Benefit ¹ | | Amount of Benefit Paid |
|---------------------------|---|----------------------------------|----------------------------------|----------------------------|------------------------------|
| | | | Complete Weeks | Partial Weeks | |
| | No. | No. | No. | No. | \$ |
| 1955 | | | | | |
| Newfoundland..... | 21,080 | 24,732 | 50,764 | 12,100 | 6,109,056 |
| Prince Edward Island..... | 3,972 | 4,596 | 11,072 | 2,540 | 995,316 |
| Nova Scotia..... | 40,840 | 41,676 | 98,920 | 35,048 | 9,448,924 |
| New Brunswick..... | 35,132 | 39,196 | 77,124 | 26,656 | 8,962,840 |
| Quebec..... | 273,084 | 311,040 | 690,984 | 198,532 | 69,340,180 |
| Ontario..... | 280,848 | 333,840 | 749,452 | 216,548 | 71,092,308 |
| Manitoba..... | 36,856 | 42,592 | 120,568 | 29,764 | 9,668,732 |
| Saskatchewan..... | 24,232 | 25,508 | 80,400 | 16,280 | 5,940,936 |
| Alberta..... | 46,392 | 51,272 | 98,804 | 33,000 | 10,432,780 |
| British Columbia..... | 86,932 | 103,440 | 234,676 | 83,528 | 21,050,280 |
| Totals, 1955..... | 849,368 | 977,892 | 2,212,764² | 653,976² | 213,041,352 |
| 1956 | | | | | |
| Newfoundland..... | 22,548 | 19,032 | 252,024 | 32,792 | 5,636,292 |
| Prince Edward Island..... | 4,280 | 3,512 | 49,424 | 6,516 | 933,748 |
| Nova Scotia..... | 38,348 | 38,004 | 374,476 | 90,852 | 8,054,996 |
| New Brunswick..... | 36,396 | 30,456 | 359,656 | 61,736 | 7,607,632 |
| Quebec..... | 267,028 | 251,580 | 2,759,016 | 427,884 | 57,458,096 |
| Ontario..... | 267,264 | 272,164 | 2,470,212 | 447,304 | 52,179,184 |
| Manitoba..... | 38,856 | 34,896 | 414,428 | 64,208 | 8,419,372 |
| Saskatchewan..... | 24,208 | 22,808 | 284,356 | 35,296 | 5,897,468 |
| Alberta..... | 44,032 | 44,320 | 393,704 | 92,148 | 8,655,628 |
| British Columbia..... | 91,464 | 84,516 | 748,244 | 151,036 | 16,321,956 |
| Totals, 1956..... | 834,424 | 801,288 | 8,105,540 | 1,409,772 | 171,164,312 |

¹ For January to September in 1955 duration was calculated on a 'day' basis. Total number of days for that period was 52,408,092.

² October to December only.

24.—Number of Regular Benefit Periods Terminated during 1955 and 1956 classified by Amount of Benefit Authorized and Paid

NOTE.—Based on a 25-p.c. sample.

| Amount of Benefit | 1955 | | 1956 | |
|----------------------|----------------|----------------|----------------|----------------|
| | Authorized | Paid | Authorized | Paid |
| | No. | No. | No. | No. |
| \$ 0..... | — | 81,408 | — | 88,016 |
| \$ 1- \$19..... | 17,552 | 41,080 | 5,084 | 40,172 |
| \$ 20- \$ 39..... | | 47,240 | | 47,800 |
| \$ 40- \$ 59..... | | 43,652 | | 42,124 |
| \$ 60- \$ 79..... | | 46,500 | | 39,748 |
| \$ 80- \$ 99..... | 20,992 | 48,796 | 6,356 | 37,116 |
| \$100- \$119..... | 28,236 | 50,820 | 8,728 | 34,916 |
| \$120- \$139..... | 28,764 | 49,044 | 9,584 | 33,524 |
| \$140- \$159..... | 35,260 | 52,248 | 12,572 | 31,680 |
| \$160- \$179..... | 33,468 | 47,476 | 15,068 | 30,764 |
| \$180- \$199..... | 32,840 | 44,056 | 16,712 | 30,144 |
| \$200- \$219..... | 34,532 | 43,744 | 17,196 | 27,616 |
| \$220- \$239..... | 32,652 | 38,980 | 20,576 | 27,264 |
| \$240- \$259..... | 30,500 | 35,944 | 23,660 | 26,756 |
| \$260- \$279..... | 28,384 | 31,864 | 22,520 | 24,260 |
| \$280- \$299..... | 27,744 | 28,904 | 22,336 | 21,964 |
| \$300- \$319..... | 27,008 | 26,744 | 23,892 | 21,388 |
| \$320- \$339..... | 24,016 | 22,224 | 24,324 | 20,300 |
| \$340- \$359..... | 24,184 | 20,764 | 23,164 | 16,992 |
| \$360- \$379..... | 22,700 | 18,540 | 24,728 | 17,436 |
| \$380- \$399..... | 21,160 | 16,420 | 28,200 | 17,624 |
| \$400- \$449..... | 49,660 | 32,960 | 55,688 | 32,248 |
| \$450- \$499..... | 44,896 | 23,820 | 55,140 | 24,096 |
| \$500- \$549..... | 41,768 | 18,348 | 54,764 | 16,856 |
| \$550- \$599..... | 39,536 | 13,124 | 37,044 | 9,888 |
| \$600- \$649..... | 37,796 | 10,672 | 43,580 | 8,276 |
| \$650- \$699..... | 35,664 | 7,984 | 33,212 | 5,508 |
| \$700- \$749..... | 34,844 | 6,920 | 27,016 | 4,020 |
| \$750- \$799..... | 32,428 | 5,160 | 30,980 | 4,180 |
| \$800- \$899..... | 52,148 | 7,556 | 53,076 | 5,756 |
| \$900- \$999..... | 36,692 | 4,576 | 31,576 | 2,928 |
| \$1,000 or over..... | 102,468 | 10,324 | 74,512 | 9,928 |
| Totals..... | 977,892 | 977,892 | 801,288 | 801,288 |

25.—Regular Benefit Periods Terminated during 1955 and 1956 and Duration of Benefit Paid, classified by Weekly Rate of Benefit Authorized and Dependency Status

NOTE.—Based on a 25-p.c. sample. Rates of contribution and benefit were revised effective Oct. 2, 1955.

| Dependency Status and Weekly Rate of Benefit | 1955 | | | 1956 | | |
|--|----------------------------|----------------------------------|----------------|----------------------------|---------------------|----------------|
| | Benefit Periods Terminated | Duration of Benefit ¹ | | Benefit Periods Terminated | Duration of Benefit | |
| | | Complete Weeks | Partial Weeks | | Complete Weeks | Partial Weeks |
| | No. | No. | No. | No. | No. | No. |
| With Dependents..... | 475,596 | 1,125,992 | 347,296 | 389,860 | 3,969,456 | 748,188 |
| Under \$3..... | 64 | 272 | 36 | ... | ... | ... |
| \$ 3- \$ 4..... | 400 | 988 | 108 | 380 | 5,636 | 1,032 |
| \$ 5- \$ 6..... | 1,976 | 5,564 | 884 | 1,596 | 23,184 | 3,332 |
| \$ 7- \$ 8..... | 5,676 | 14,064 | 3,760 | 4,784 | 70,344 | 8,648 |
| \$ 9- \$10..... | 16,268 | 36,804 | 10,768 | 13,392 | 176,216 | 28,156 |
| \$11- \$12..... | 102,244 | 223,240 | 63,352 | 68,940 | 787,080 | 142,524 |
| \$13- \$14..... | 348,968 | 844,460 | 268,388 | 239,032 | 2,216,716 | 505,740 |
| \$15- \$16..... | ... | ... | ... | 18,336 | 208,516 | 16,928 |
| \$17- \$18..... | ... | ... | ... | 15,588 | 188,544 | 16,332 |
| \$19- \$20..... | ... | ... | ... | 27,812 | 293,220 | 25,496 |

For footnotes, see end of table, p. 786.

25.—Regular Benefit Periods Terminated during 1955 and 1956 and Duration of Benefit Paid, classified by Weekly Rate of Benefit Authorized and Dependency Status—concluded

| Dependency Status and Weekly Rate of Benefit | 1955 | | | 1956 | | |
|--|----------------------------|----------------------------------|----------------------------|----------------------------|---------------------|------------------|
| | Benefit Periods Terminated | Duration of Benefit ¹ | | Benefit Periods Terminated | Duration of Benefit | |
| | | Complete Weeks | Partial Weeks | | Complete Weeks | Partial Weeks |
| | No. | No. | No. | No. | No. | No. |
| Without Dependents | 502,296 | 1,086,772 | 306,680 | 411,428 | 4,136,084 | 661,584 |
| Under \$6..... | 196 | 752 | 148 | ... | ... | ... |
| \$ 6..... | 2,800 | 5,804 | 1,368 | 2,152 | 26,852 | 2,928 |
| \$ 9..... | 22,000 | 42,040 | 10,396 | 16,988 | 191,964 | 25,696 |
| \$11..... | 45,400 | 92,040 | 27,052 | 36,828 | 389,652 | 61,520 |
| \$13..... | 75,076 | 154,996 | 49,544 | 59,220 | 607,984 | 103,196 |
| \$15..... | 157,944 | 332,728 | 92,476 | 118,024 | 1,204,808 | 197,908 |
| \$17..... | 198,880 | 459,248 | 125,696 | 143,504 | 1,316,472 | 245,628 |
| \$19..... | ... | ... | ... | 12,336 | 138,460 | 9,012 |
| \$21..... | ... | ... | ... | 10,196 | 123,708 | 7,288 |
| \$23..... | ... | ... | ... | 12,180 | 136,184 | 8,408 |
| Totals | 977,892 | 2,212,764¹ | 653,976¹ | 801,288 | 8,105,540 | 1,409,772 |

¹ October to December only; for January to September duration was calculated on a 'day' basis. Total number of days for that period was 52,408,092.

26.—Regular Benefit Periods Terminated during 1955 and 1956 and Duration of Benefit Paid classified by Age of Claimant

NOTE.—Based on a 25-p.c. sample.

| Age Group | Benefit Periods Terminated | Duration of Benefit ¹ | | Benefit Periods Terminated | |
|---------------------------|----------------------------|----------------------------------|----------------------------|----------------------------|----------------|
| | | Complete Weeks | Partial Weeks | Lapsed | Exhausted |
| | No. | No. | No. | No. | No. |
| 1955 | | | | | |
| Under 20 years..... | 40,832 | 49,512 | 23,348 | 20,200 | 20,632 |
| 20 - 24 "..... | 168,056 | 311,788 | 95,360 | 114,736 | 53,320 |
| 25 - 29 "..... | 158,220 | 324,112 | 96,660 | 116,356 | 41,864 |
| 30 - 34 "..... | 129,192 | 277,184 | 91,528 | 93,980 | 35,212 |
| 35 - 39 "..... | 100,852 | 214,468 | 71,568 | 71,984 | 28,868 |
| 40 - 44 "..... | 93,024 | 201,904 | 67,856 | 64,444 | 28,580 |
| 45 - 49 "..... | 79,532 | 186,484 | 60,264 | 53,956 | 25,576 |
| 50 - 54 "..... | 65,172 | 154,864 | 48,780 | 43,116 | 22,056 |
| 55 - 59 "..... | 49,372 | 132,664 | 35,008 | 30,440 | 18,932 |
| 60 - 64 "..... | 34,892 | 107,552 | 23,132 | 19,552 | 15,340 |
| 65 - 69 "..... | 30,804 | 144,172 | 20,468 | 15,072 | 15,732 |
| 70 and over..... | 18,156 | 86,784 | 12,252 | 7,228 | 10,928 |
| Unspecified..... | 9,788 | 21,276 | 7,752 | 7,340 | 2,448 |
| Totals, 1955 | 977,892 | 2,212,764¹ | 653,976¹ | 658,404 | 319,488 |
| 1956 | | | | | |
| Under 20 years..... | 27,908 | 214,352 | 33,448 | 22,028 | 5,880 |
| 20 - 24 "..... | 136,020 | 1,128,788 | 195,772 | 116,860 | 19,160 |
| 25 - 29 "..... | 132,316 | 1,185,888 | 212,488 | 115,844 | 16,472 |
| 30 - 34 "..... | 107,388 | 955,348 | 188,502 | 92,876 | 14,612 |
| 35 - 39 "..... | 85,692 | 768,316 | 154,808 | 73,376 | 12,316 |
| 40 - 44 "..... | 76,272 | 717,968 | 146,560 | 63,964 | 12,308 |
| 45 - 49 "..... | 65,488 | 649,588 | 131,328 | 54,196 | 11,292 |
| 50 - 54 "..... | 53,072 | 568,220 | 106,524 | 42,708 | 10,364 |
| 55 - 59 "..... | 39,488 | 474,324 | 80,388 | 30,572 | 8,916 |
| 60 - 64 "..... | 37,096 | 649,064 | 73,272 | 25,516 | 11,580 |
| 65 - 69 "..... | 17,212 | 357,260 | 36,540 | 10,444 | 6,768 |
| 70 and over..... | 14,896 | 363,792 | 35,820 | 7,624 | 7,272 |
| Unspecified..... | 8,440 | 72,632 | 14,232 | 7,384 | 1,056 |
| Totals, 1956 | 801,288 | 8,105,540 | 1,409,772 | 663,392 | 137,896 |

¹ October to December only for 1955; for January to September duration was calculated on a 'day' basis. Total number of days for that period was 52,408,092.

27.—Regular Benefit Periods Terminated during 1955 and 1956 and Duration of Benefit Paid classified by Occupation

NOTE.—Based on a 25-p.c. sample.

| Occupation | 1955 | | | 1956 | | |
|-------------------------------------|----------------------------|----------------------------------|----------------------------|----------------------------|---------------------|------------------|
| | Benefit Periods Terminated | Duration of Benefit ¹ | | Benefit Periods Terminated | Duration of Benefit | |
| | | Complete Weeks | Partial Weeks | | Complete Weeks | Partial Weeks |
| | No. | No. | No. | No. | No. | No. |
| Managerial..... | 7,592 | 23,992 | 4,232 | 7,048 | 95,340 | 9,788 |
| Professional..... | 7,068 | 16,188 | 3,408 | 5,960 | 61,904 | 7,156 |
| Clerical..... | 74,032 | 206,372 | 36,840 | 64,452 | 746,604 | 92,552 |
| Transportation..... | 89,912 | 214,940 | 61,276 | 77,900 | 803,456 | 152,812 |
| Communication..... | 6,460 | 17,404 | 3,292 | 5,896 | 78,940 | 9,072 |
| Commercial..... | 50,376 | 112,160 | 28,652 | 45,636 | 532,104 | 90,368 |
| Financial..... | 624 | 1,848 | 436 | 572 | 4,656 | 668 |
| Service..... | 81,020 | 241,000 | 48,716 | 67,988 | 896,604 | 113,900 |
| Personal..... | 36,972 | 108,624 | 22,264 | 32,348 | 413,080 | 64,864 |
| Domestic..... | 28,892 | 78,024 | 16,064 | 23,252 | 290,368 | 34,860 |
| Protective..... | 13,428 | 49,428 | 9,392 | 10,780 | 172,928 | 21,376 |
| Other..... | 1,728 | 4,924 | 976 | 1,608 | 20,228 | 2,800 |
| Agricultural..... | 4,956 | 16,672 | 3,724 | 3,636 | 43,640 | 4,816 |
| Fishing, trapping and logging..... | 62,016 | 70,208 | 24,204 | 46,344 | 458,124 | 77,988 |
| Fishing and trapping..... | 1,052 | 2,316 | 876 | 676 | 7,244 | 872 |
| Logging..... | 60,964 | 67,892 | 23,328 | 45,668 | 450,880 | 77,016 |
| Mining..... | 20,204 | 41,196 | 16,880 | 19,716 | 131,720 | 52,908 |
| Manufacturing and mechanical..... | 226,164 | 468,252 | 191,644 | 173,672 | 1,448,212 | 306,700 |
| Electric light and power..... | 15,056 | 43,980 | 9,588 | 12,052 | 132,388 | 20,640 |
| Construction..... | 115,672 | 252,760 | 77,748 | 99,892 | 931,140 | 176,860 |
| Labourers..... | 202,940 | 457,212 | 134,600 | 157,360 | 1,606,556 | 270,292 |
| Unspecified..... | 13,800 | 28,580 | 8,736 | 13,164 | 134,252 | 23,252 |
| Totals, All Occupations..... | 977,892 | 2,212,764¹ | 653,976¹ | 801,288 | 8,105,540 | 1,499,772 |

¹ October to December only; for January to September duration was calculated on a 'day' basis. Total number of days for that period was 52,408,092.

28.—Persons Establishing Seasonal Benefit Periods, Duration of Benefit and Amount Paid, by Province 1955 and 1956

NOTE.—Based on a 25-p.c. sample.

| Province | 1955 ¹ | | | 1956 ² | | | |
|------------------------|--------------------------------------|-------------------|-------------------|--------------------------------------|--------------------|----------------|-------------------|
| | Persons Establishing Benefit Periods | Benefit Days Paid | Amount of Benefit | Persons Establishing Benefit Periods | Benefit Weeks Paid | | Amount of Benefit |
| | | | | | Complete | Partial | |
| | No. | No. | \$ | No. | No. | No. | \$ |
| Newfoundland..... | 9,384 | 335,166 | 1,103,964 | 12,108 | 107,616 | 3,696 | 2,294,160 |
| Prince Edward Island.. | 2,198 | 84,136 | 231,289 | 2,384 | 22,864 | 1,056 | 392,920 |
| Nova Scotia..... | 11,436 | 475,088 | 1,428,724 | 12,976 | 105,232 | 6,880 | 1,992,640 |
| New Brunswick..... | 14,854 | 580,374 | 1,696,243 | 17,140 | 140,536 | 7,264 | 2,694,720 |
| Quebec..... | 83,468 | 3,218,690 | 9,394,301 | 89,288 | 692,536 | 31,504 | 13,424,040 |
| Ontario..... | 70,180 | 2,749,692 | 8,164,423 | 65,512 | 476,864 | 25,748 | 8,904,800 |
| Manitoba..... | 13,244 | 537,412 | 1,597,416 | 12,944 | 109,212 | 5,872 | 2,027,160 |
| Saskatchewan..... | 9,502 | 375,352 | 1,138,634 | 9,576 | 84,708 | 3,452 | 1,665,200 |
| Alberta..... | 12,210 | 444,964 | 1,378,049 | 11,728 | 85,144 | 5,152 | 1,688,280 |
| British Columbia..... | 23,524 | 902,420 | 2,757,598 | 22,040 | 156,492 | 9,980 | 2,995,000 |
| Totals..... | 250,000 | 9,703,294 | 28,890,641 | 255,696 | 1,982,204 | 100,604 | 38,079,920 |

¹ Jan. 1 to Apr. 15.

² Jan. 1 to Apr. 21.

Employment Service.—The Unemployment Insurance Commission operates a free employment service under authority of the Unemployment Insurance Act, 1940. The public employment offices, which had functioned under a joint federal-provincial arrangement for more than two decades, were taken over by the Commission on Aug. 1, 1941, and additional offices were established in all provinces except Quebec. The Commission established its own offices in Quebec and the Provincial Government thereupon reduced the number of its offices.

29.—Applications for Employment, Positions Offered and Placements Effected by Employment Offices 1947-56 and by Province 1955 and 1956

NOTE.—Figures by provinces from 1920-54 are given in the corresponding table of previous Year Books beginning with the 1926 edition. Totals for 1920-37 are given in the 1938 edition, p. 766; for 1938 in the 1939 edition, p. 802; and for 1939-46 in the 1951 edition, p. 686.

| Year and Province | Applications Registered | | Vacancies Notified | | Placements Effected | |
|-------------------------------|-------------------------|---------|--------------------|---------|---------------------|---------|
| | Males | Females | Males | Females | Males | Females |
| | No. | No. | No. | No. | No. | No. |
| 1947..... | 1,189,646 | 439,577 | 1,060,134 | 476,643 | 549,376 | 220,473 |
| 1948..... | 1,197,295 | 459,332 | 794,207 | 391,385 | 467,916 | 214,424 |
| 1949..... | 1,295,690 | 494,956 | 652,853 | 373,837 | 464,363 | 219,816 |
| 1950..... | 1,500,763 | 575,813 | 800,611 | 363,711 | 559,882 | 230,920 |
| 1951..... | 1,541,208 | 623,467 | 943,773 | 387,795 | 655,933 | 262,305 |
| 1952..... | 1,781,689 | 664,485 | 855,152 | 444,926 | 677,777 | 302,730 |
| 1953..... | 1,990,918 | 754,358 | 822,852 | 466,310 | 661,167 | 332,239 |
| 1954..... | 2,129,110 | 840,877 | 665,020 | 423,291 | 545,452 | 316,136 |
| 1955..... | 2,161,081 | 829,741 | 797,917 | 435,056 | 642,726 | 310,850 |
| 1956..... | 2,182,904 | 809,277 | 986,653 | 438,967 | 748,464 | 298,515 |
| Newfoundland.....1955 | 47,339 | 3,094 | 4,528 | 820 | 3,405 | 437 |
|1956 | 50,084 | 3,621 | 6,724 | 1,081 | 4,935 | 597 |
| Prince Edward Island.....1955 | 10,449 | 4,763 | 4,439 | 2,878 | 3,468 | 2,244 |
|1956 | 10,525 | 4,773 | 5,196 | 2,861 | 3,751 | 2,369 |
| Nova Scotia.....1955 | 79,052 | 23,171 | 21,790 | 10,844 | 18,069 | 7,895 |
|1956 | 80,633 | 22,615 | 24,268 | 11,037 | 19,941 | 7,676 |
| New Brunswick.....1955 | 92,941 | 22,356 | 31,036 | 8,896 | 25,628 | 6,473 |
|1956 | 90,508 | 21,399 | 30,872 | 9,084 | 23,171 | 6,082 |
| Quebec.....1955 | 578,483 | 194,868 | 210,884 | 101,831 | 156,557 | 65,813 |
|1956 | 581,178 | 188,873 | 259,362 | 108,787 | 183,494 | 69,289 |
| Ontario.....1955 | 752,244 | 314,865 | 292,053 | 158,025 | 245,967 | 114,230 |
|1956 | 776,589 | 312,875 | 369,491 | 159,326 | 292,032 | 110,154 |
| Manitoba.....1955 | 103,695 | 54,234 | 38,643 | 25,619 | 31,029 | 18,249 |
|1956 | 102,616 | 51,171 | 50,594 | 25,184 | 38,970 | 17,436 |
| Saskatchewan.....1955 | 71,764 | 30,080 | 29,850 | 14,417 | 23,735 | 10,116 |
|1956 | 70,599 | 30,652 | 39,513 | 17,095 | 28,684 | 11,134 |
| Alberta.....1955 | 144,715 | 54,971 | 66,039 | 36,168 | 52,173 | 23,445 |
|1956 | 137,369 | 55,812 | 84,300 | 40,433 | 59,798 | 25,484 |
| British Columbia.....1955 | 280,399 | 127,339 | 98,655 | 75,558 | 82,695 | 61,948 |
|1956 | 282,803 | 117,686 | 116,333 | 64,079 | 93,688 | 48,294 |

Section 6.—Vocational Training*

The federal Department of Labour, under the authorization of the Vocational Training Co-ordination Act 1942, co-operates with the provinces in promoting and developing vocational training in Canada by sharing with the provincial governments the costs of establishing and operating various types of schools and training programs designed to fit trainees for employment.

* More detailed information is given in the annual report, *Canadian Vocational Training Branch*, published as a supplement to the annual report of the Department of Labour.

The federal-provincial program under which all classes and training projects are operated is known as 'Canadian Vocational Training'. In conducting this program, the Minister of Labour receives advice and co-operation from the Vocational Training Advisory Council which consists of representatives of provincial governments, employers, organized labour and other bodies concerned with vocational training in Canada. Problems regarding apprenticeship, including federal participation therein, are referred to the Apprenticeship Training Advisory Committee which reports to the Minister through the Council.

The established procedure is to have all training programs operated by or under the supervision of the appropriate provincial authority and to reimburse the provinces for provincial government expenditures in connection with such projects. Where classes or training programs are operated for federal government departments, the Armed Forces, or other federal agencies, the provinces are reimbursed for the full costs; otherwise they are reimbursed for one-half of such expenditures subject to the limitation of funds voted for such purpose by Parliament.

There are four federal-provincial agreements governing the nature and extent of the sharable expenditures for different types of training: the Vocational and Technical Training Agreement No. 2, the Apprenticeship Agreement, the Vocational Training Agreement, and the Vocational Correspondence Courses Agreement.

Assistance to Vocational and Technical Training.—Ten-year agreements for vocational and technical school assistance were signed by nine provinces and the Yukon and Northwest Territories in 1957. The agreements provide for a total of \$15,000,000 to be expended by the Federal Government over a five-year period for operating expenses of vocational schools and technical institutes of lower than college grade, and \$25,000,000 for capital assistance in building and equipping such schools, with preference given to trade schools and technical institutes.

The capital assistance is divided among the provinces and territories on the basis of number of persons in the 15-19 age group. Under the annual allotment an initial amount of \$30,000 is made available to each province and \$20,000 to each territory, the balance being distributed on the basis of the 15-19 age group. The total annual allotment for the first two years of the agreement is \$2,500,000, for the third year \$3,000,000 and for the fourth and fifth years \$3,500,000.

The Vocational Schools' Assistance Agreement, which had been in effect from 1945, expired on Mar. 31, 1957.

Apprenticeship Training.—Apprenticeship agreements covering a ten-year period commencing Apr. 1, 1944, were signed by all provinces except Quebec and Prince Edward Island. Newfoundland signed an agreement in 1950 for the remainder of the 1944-54 period. These agreements have been renewed for a further ten-year period expiring on Mar. 31, 1964. They provide for sharing, on a 50-50 basis, in provincial government expenditures on the training of indentured apprentices who are registered with the provincial Departments of Labour under the provisions of the apprenticeship Act of each province. Training is provided on the job and in specially organized classes which may be conducted on a full-time basis during the day or as part-time day or evening classes. As of Mar. 31, 1957, a total of 16,663 apprentices was registered. Federal Government expenditures for this purpose for the year ended Mar. 31, 1957, were as follows:—

| <i>Province</i> | <i>Payment</i> | <i>Province</i> | <i>Payment</i> |
|--------------------|----------------|----------------------------|----------------|
| | \$ | | \$ |
| Newfoundland..... | 38,242 | Alberta..... | 281,313 |
| Nova Scotia..... | 71,306 | British Columbia..... | 110,769 |
| New Brunswick..... | 69,460 | Northwest Territories..... | 2,176 |
| Ontario..... | 301,004 | | |
| Manitoba..... | 62,330 | TOTAL..... | 1,033,979 |
| Saskatchewan..... | 97,378 | | |

Special Vocational Training Projects.—Agreements that provide for sharing with the provinces the costs of various types of training projects, other than those regularly conducted in schools assisted under the provisions of the Vocational and Technical Training Agreement No. 2, have been in operation since 1939. These agreements were consolidated in 1948 and expired in 1954; they have been renewed for a further five-year period, except that the provision for sharing the costs of financial assistance to university students and nurses-in-training is subject to renewal on a year-to-year basis. The conditions governing financial assistance to the various types of projects are set forth in schedules attached to and forming part of each agreement. These schedules cover special training classes for members of the Armed Forces, the costs of which are borne entirely by the Federal Government; training programs on an individual or class basis for veterans of the Armed Forces for which the provinces are reimbursed 100 p.c.; and special training programs for employees of federal government departments, the full cost of which is also borne by the federal treasury. In addition the costs of the following types of classes are shared equally by the federal and provincial governments: training for unemployed persons who require such training to fit them for available employment; rehabilitation training for disabled persons; short-term classes for young people in rural communities; and training programs for supervisors in industrial establishments. Total expenditure from the federal treasury under these vocational training agreements for the year ended Mar. 31, 1957, was \$948,668.

Correspondence Courses.—Under the provisions of the Vocational Correspondence Courses Agreement, the Federal Government shares equally with the provincial governments in the costs of printing and preparing correspondence courses. These courses, of which there are approximately 100, must be approved by a committee consisting of the provincial officials in charge of correspondence instruction. They are made available to students anywhere in Canada on the same terms as for students in the province where the course has been prepared. The sum of \$125,000 was appropriated in 1950 to provide for such expenditures during a five-year period. Payments are made to the provinces only on completion of approved courses, and the term of the agreements has been extended to Mar. 31, 1958, to take care of incompleting courses and needed revisions.

Section 7.—Industrial Accidents and Workmen's Compensation

Subsection 1.—Fatal Industrial Accidents

Statistics of fatal industrial accidents have been compiled by the federal Department of Labour since 1903. The data are now obtained from provincial Workmen's Compensation Boards, the Board of Transport Commissioners and other government authorities, departmental correspondents and from press reports.

30.—Fatal Industrial Accidents 1953-56

| Industry | Numbers | | | | Percentages of Total | | | |
|---|-------------------|-------------------|--------------|-------------------|----------------------|-------------------|--------------|-------------------|
| | 1953 ^r | 1954 ^r | 1955 | 1956 ^p | 1953 ^r | 1954 ^r | 1955 | 1956 ^p |
| Agriculture..... | 114 | 100 | 88 | 104 | 8.6 | 7.7 | 6.6 | 7.3 |
| Logging..... | 167 | 168 | 183 | 193 | 12.6 | 13.0 | 13.8 | 13.6 |
| Fishing and trapping..... | 33 | 31 | 32 | 18 | 2.5 | 2.4 | 2.4 | 1.3 |
| Mining, non-ferrous smelting and quarrying..... | 187 | 204 | 179 | 246 | 14.2 | 15.7 | 13.5 | 17.4 |
| Manufacturing..... | 242 | 207 | 219 | 189 | 18.3 | 16.0 | 16.5 | 13.3 |
| Construction..... | 223 | 238 | 243 | 301 | 16.9 | 18.4 | 18.3 | 21.3 |
| Electric light and power..... | 35 | 26 | 42 | 28 | 2.6 | 2.0 | 3.2 | 2.0 |
| Transportation and public utilities..... | 178 | 193 | 211 | 221 | 13.5 | 14.9 | 15.9 | 15.6 |
| Trade..... | 58 | 53 | 50 | 55 | 4.4 | 4.1 | 3.8 | 3.9 |
| Finance..... | 4 | 3 | 5 | 1 | 0.3 | 0.2 | 0.4 | 0.1 |
| Service..... | 80 | 73 | 74 | 60 | 6.1 | 5.6 | 5.6 | 4.2 |
| Totals..... | 1,321 | 1,296 | 1,326 | 1,416 | 100.0 | 100.0 | 100.0 | 100.0 |

Causes of Industrial Fatalities.—During 1956, of the 1,416 fatal accidents to industrial workers, 406 were caused by moving objects; 73 by falling trees and branches; 34 by falling or flying objects in mines and quarries; 37 by automobiles and trucks; and 56 by landslides and cave-ins. Collisions, derailments, wrecks, etc., were responsible for 344 industrial fatalities. Automobiles and trucks were involved in 157 of these accidents; watercraft in 51; tractors in 61; aircraft in 35; and railways in 31. Falls and slips were responsible for 250 industrial deaths, of which 247 were falls to different levels including 76 deaths caused by falls into rivers, lakes, seas or harbours; 32 by falls from scaffolds and stagings; 25 by falls into shafts, pits, excavations, etc.; 28 by falls from buildings, roofs and towers; and 12 by falls from ladders and stairs. There were 97 deaths caused by exposure to dust and poisonous gases, and 82 deaths caused by workers being caught in, on or between parts of machinery or other agencies. Conflagrations, temperature extremes and explosions caused 111 industrial fatalities; 57 were caused by over-exertion or industrial diseases, and 58 by contact with electric current.

Subsection 2.—Workmen's Compensation*

In all provinces legislation is in force providing for compensation for injury to a workman by accident arising out of and in the course of employment, or by a specified industrial disease, except where the workman is disabled for fewer than a stated number of days. The Acts of all provinces provide for a compulsory system of collective liability on the part of employers. To ensure payment of compensation each Act provides for an accident fund, administered by the province, to which employers are required to contribute at a rate determined by the Workmen's Compensation Board in accordance with the hazards of the industry. A workman to whom these provisions apply has no right of action against his employer for injury from an accident during employment. In Ontario and Quebec public authorities, railway and shipping companies, and telephone and telegraph companies are individually liable for compensation as determined by the Board and pay a proportion of the expenses of administration. A federal Act provides for compensation for accidents to Federal Government employees according to the conditions laid down by the Act of the province in which the employee is usually employed. Seamen who are not under a provincial Workmen's Compensation Act are entitled to compensation under the Merchant Seamen Compensation Act.

In all provinces, free medical aid is given to workmen during disability. Compensation is payable in all provinces for anthrax and for poisoning from arsenic, lead, mercury and phosphorus and silicosis is compensated under certain conditions. Other diseases compensated vary according to the industries of the provinces.

Scope of the Workmen's Compensation Acts.—The Acts vary in scope but in general they cover construction, mining, manufacturing, lumbering, transportation and communications and the operation of public utilities. Undertakings in which not more than a stated number of workmen are usually employed may be excluded, except in Alberta and British Columbia.

Benefits.—Under each Act, except those of Saskatchewan and Alberta, if a workman is disabled from earning full wages for fewer than a stated number of days, usually called the 'waiting period', he cannot recover compensation for the period of his disability or, in Manitoba and British Columbia, for the first three days of his disability. Where the disability continues beyond the required number of days, compensation is payable from the date of the accident. Medical aid is always paid from the date of the accident. In Saskatchewan and Alberta the waiting period is one day, that is, compensation is not payable when the workman is off work only for the day on which the accident occurs. When he is disabled for a longer time, compensation begins from the day following the accident.

* More detailed information is given in the Department of Labour publication, *Workmen's Compensation in Canada, A Comparison of Provincial Laws*.

Burial expenses are paid to the amount of \$250 in Saskatchewan and British Columbia, and of \$200 in Newfoundland, Prince Edward Island, Nova Scotia, New Brunswick, Quebec, Ontario, Manitoba and Alberta. In seven provinces an additional sum is allowed for transporting the workman's body.

A widow or invalid widower or a foster mother, as long as the children are under the age limit, receives a monthly payment of \$75 in Ontario, Saskatchewan and British Columbia; \$60 in Alberta and Newfoundland; \$55 in Quebec; and \$50 in Prince Edward Island, Nova Scotia, New Brunswick and Manitoba. In addition, a lump sum of \$250 is paid in Saskatchewan; \$200 in Ontario, Quebec and Manitoba; \$150 in Alberta; and \$100 in all other provinces.

For each child in the care of a parent or foster mother receiving compensation, a monthly payment of \$35 is made in Saskatchewan; \$30 in Alberta; \$25 in Ontario and British Columbia; \$20 in Nova Scotia, Quebec, Manitoba, Newfoundland and Prince Edward Island; and \$12 in New Brunswick; with a maximum of \$130 to any one family in Prince Edward Island and \$150 in Nova Scotia.

For each orphan child a monthly payment of \$45 is made in Saskatchewan; \$35 in Ontario; \$30 in Nova Scotia, Quebec, Manitoba, British Columbia, Prince Edward Island, Newfoundland and Alberta (in Alberta a further amount, not exceeding \$10 a month, may be given at the discretion of the Board); and \$25 in New Brunswick; with a maximum of \$120 a month to any one family in Prince Edward Island and of \$150 in Nova Scotia.

Invalids excepted, payments to children are not continued beyond the age of 16 years in seven of the provinces but the Board has discretion to pay compensation to the age of 18 years if it is considered desirable to continue a child's education. In Quebec, the age limit is 18 years and in New Brunswick and British Columbia compensation is paid to the age of 18 years if a child is regularly attending school. In Nova Scotia, New Brunswick, Quebec, Ontario, Manitoba, Saskatchewan and British Columbia payments to invalid children are continued until recovery, but the other provinces make payments only for the length of time the Board considers that the workman would have contributed to their support.

Where the only dependants are persons other than consort or children, all the Acts provide that compensation is to be a reasonable sum proportionate to the pecuniary loss but the total monthly amount to be paid to all such dependants is limited to \$100 in Ontario; \$85 in Alberta; \$75 in British Columbia; and \$60 in Prince Edward Island, Nova Scotia and Manitoba. In British Columbia, if a workman leaves dependent parents as well as a widow or orphans, the maximum payable to a parent or parents is \$75 a month. Compensation to dependants, other than consort or children, is continued only for such time as the Board considers that the workman would have contributed to their support.

Except in Alberta and British Columbia, each Act places a maximum on the total amount of benefits payable to dependants if the workman dies. A maximum is placed on the amounts that may be paid to the widow and children in Prince Edward Island and Nova Scotia. In Prince Edward Island the maximum is \$130 to a widow and children and \$120 to orphan children. The Nova Scotia maximums are \$150 in each case. In New Brunswick the maximum to all dependants is 70 p.c. of the workman's earnings and in Newfoundland, Quebec and Manitoba, 75 p.c. In Ontario and Saskatchewan the average earnings are the maximum amount payable.

Irrespective of the workman's earnings, however, compensation may not fall below certain minimum monthly amounts. The minimum payable to a consort and one child in Quebec is \$75 a month or \$95 if there is more than one child; in Manitoba the minimum is \$70 if there is a consort and one child and \$90 if there is more than one child; in Saskatchewan the minimum is \$100 a month to a consort and child and \$115 to a consort and two children plus \$10 a month for each additional child. In Newfoundland, a widow must receive at least \$60 a month with a further payment of \$20 for each child under 16 years of age unless the total exceeds \$130. In Ontario, the minimum payable to a widow is \$75 a month with a further payment of \$25 for each child up to but not exceeding \$150 a month.

Compensation for total disablement in Nova Scotia and New Brunswick is a periodical payment for the duration of the disability equal to 70 p.c. of average earnings; in the other provinces the rate is 75 p.c. Except in New Brunswick, the Acts fix minimum sums to be paid for a permanent total disability. The minimum is \$15 a week in Prince Edward Island, Quebec and Manitoba, and \$25 in Saskatchewan, Alberta and British Columbia. In Newfoundland the minimum is \$65 a month, and in Nova Scotia and Ontario \$100 a month. If average earnings are less than the minimum amount allowed, the amount of the earnings is paid in all provinces except Nova Scotia and Saskatchewan. For partial disablement, compensation is either a percentage of the difference in earnings before and after the accident, the percentage rate being the same as in total disablement, or the amount is determined by the Board according to the diminution of earning capacity. In all provinces, if the impairment of earning capacity is 10 p.c. or less (5 p.c. or less in Alberta), a lump sum may be given.

The average earnings on which compensation is based are limited to \$5,000 a year in Ontario and Saskatchewan; \$4,000 in New Brunswick, Quebec, Alberta and British Columbia; \$3,500 in Manitoba; \$3,000 in Newfoundland and Nova Scotia; and \$2,700 in Prince Edward Island. If the workmen's earnings at the time of an accident are not considered a proper basis for compensation the Board may use as a basis the average earnings of another person in the same grade of work. Compensation paid workmen under 21 years of age may be raised later if it appears that their earning power would have increased had the injury not occurred.

Table 34 gives the number of industrial accidents reported by each of the provinces and the amount of compensation paid by the Workmen's Compensation Boards in the years 1955 and 1956.

31.—Industrial Accidents Reported and Compensation Paid by Workmen's Compensation Boards 1955 and 1956

| Year and Province | Industrial Accidents Reported | | | | | Compensation Paid ² |
|---------------------------|-------------------------------|----------------------|----------------------|--------------|----------------|--------------------------------|
| | Medical Aid Only ¹ | Temporary Disability | Permanent Disability | Fatal | Total | |
| | No. | No. | No. | No. | No. | \$ |
| 1955 | | | | | | |
| Newfoundland..... | 5,608 | 4,193 | 95 | 17 | 9,913 | 1,044,087 |
| Prince Edward Island..... | 771 | 635 | 12 | 2 | 1,420 | 156,542 |
| Nova Scotia..... | 9,878 | 7,437 | 543 | 44 | 17,902 | 3,505,273 |
| New Brunswick..... | 6,560 | 8,245 | 194 | 33 | 15,032 | 1,663,347 |
| Quebec..... | .. | .. | .. | 227 | 95,257 | 14,822,043 ³ |
| Ontario..... | 147,330 | 59,284 | 1,922 | 278 | 208,814 | 32,446,936 ³ |
| Manitoba..... | 11,661 | 5,521 | 121 | 29 | 17,332 | 2,254,022 |
| Saskatchewan..... | 9,082 | 8,011 | 137 | 52 | 17,282 | 3,270,901 ⁴ |
| Alberta..... | 24,858 | 17,760 | 698 | 116 | 43,432 | 6,458,144 |
| British Columbia..... | 43,573 | 25,036 | 1,223 | 180 | 70,012 | 17,727,188 |
| Totals, 1955..... | ... | ... | ... | 978 | 496,396 | 83,348,483 |
| 1956⁵ | | | | | | |
| Newfoundland..... | 5,410 | 4,476 | 40 | 11 | 9,937 | 1,157,560 |
| Prince Edward Island..... | 691 | 549 | 9 | 4 | 1,253 | 114,090 |
| Nova Scotia..... | 10,043 | 7,903 | 74 | 83 | 18,103 | 3,607,209 |
| New Brunswick..... | .. | .. | .. | 26 | 17,864 | 1,814,378 |
| Quebec..... | .. | .. | .. | 212 | 106,004 | 17,078,869 ³ |
| Ontario..... | 164,416 | 65,313 | 2,250 | 312 | 232,291 | 36,326,114 ³ |
| Manitoba..... | 12,341 | 5,843 | 128 | 30 | 18,342 | 2,459,434 |
| Saskatchewan..... | 11,121 | 10,685 | 250 | 62 | 22,118 | 3,644,024 ⁴ |
| Alberta..... | 28,833 | 19,866 | 769 | 126 | 49,594 | 7,588,633 |
| British Columbia..... | 49,635 | 28,210 | 1,191 | 229 | 79,265 | 19,024,131 |
| Totals, 1956..... | ... | ... | ... | 1,095 | 551,771 | 92,814,442 |

¹ Accidents requiring medical treatment but not causing disability for a sufficient period to qualify for compensation; the period varies in the several provinces.

² Includes, except where noted otherwise, payments to compensate for lost earnings, medical aid payments, cost of rehabilitation and hospitalization (not including capital expenditures), pensions paid (not total pensions awarded) for temporary and permanent disabilities.

³ Does not include payments by employers who make direct compensation to their employees; such employers come under Schedule II of the Ontario and Quebec Workmen's Compensation Acts.

⁴ Not including hospitalization costs.

Section 8.—Workers Affected by Collective Agreements

Statistics on the number of workers affected by collective agreements in Canada are compiled by the Department of Labour. Table 32 gives figures for the principal industrial groups. The second column of the table shows the number of workers affected by agreements extended under the Quebec Collective Agreement Act (*see* Sect. 1, ss. 2).

Any duplication of the numbers of workers covered by agreements under this Act and by other agreements is eliminated in the third column. A more detailed table and studies of agreements in certain industries are available from the Department of Labour, Ottawa.

32.—Workers Affected by Collective Agreements by Industry 1955

| Industrial Group | Agreements (other than those in Column 2) | Agreements Extended under Collective Agreement Act, Quebec | Total ¹ |
|--|--|---|--------------------|
| | No. | No. | No. |
| Agriculture | 65 | — | 65 |
| Forestry | 55,822 | — | 55,822 |
| Fishing | 8,635 | — | 8,635 |
| Mining (including milling), Quarrying and Oil Wells | 61,754 | 60 | 61,814 |
| Metal mining..... | 37,121 | — | 37,121 |
| Fuels..... | 15,281 | — | 15,281 |
| Non-metal mining..... | 7,631 | 60 | 7,691 |
| Quarrying, clay and sand pits..... | 1,721 | — | 1,721 |
| Manufacturing | 664,178 | 88,993 | 709,190 |
| Foods and beverages..... | 67,791 | 169 | 67,960 |
| Tobacco products..... | 5,956 | — | 5,956 |
| Rubber products..... | 13,818 | — | 13,818 |
| Leather products..... | 11,855 | 14,006 | 19,899 |
| Textile products (except clothing)..... | 37,020 | 1,172 | 37,771 |
| Clothing (textile and fur)..... | 51,464 | 39,454 | 65,016 |
| Wood products..... | 46,985 | 6,125 | 51,100 |
| Paper products..... | 67,524 | 3,107 | 68,326 |
| Printing, publishing and allied trades..... | 21,699 | 6,517 | 24,726 |
| Iron and steel products..... | 103,977 | 3,194 | 106,491 |
| Transportation equipment..... | 97,771 | 11,891 | 107,472 |
| Non-ferrous metal products..... | 37,247 | 489 | 37,736 |
| Electrical apparatus and supplies..... | 46,952 | — | 46,952 |
| Non-metallic mineral products..... | 18,847 | 1,936 | 20,567 |
| Products of petroleum and coal..... | 9,312 | — | 9,312 |
| Chemical products..... | 19,828 | 923 | 19,956 |
| Miscellaneous manufacturing industries..... | 6,132 | — | 6,132 |
| Construction | 105,122 | 98,554 | 202,791 |
| Transportation, Storage and Communication | 306,165 | 8,245 | 307,655 |
| Transportation..... | 250,531 | 8,245 | 252,021 |
| Storage..... | 6,133 | — | 6,133 |
| Communication..... | 49,501 | — | 49,501 |
| Public Utility Operations | 30,276 | — | 30,276 |
| Trade | 53,740 | 8,493 | 56,497 |
| Finance, Insurance, and Real Estate | 1,444 | — | 1,444 |
| Service | 118,120 | 11,540 | 127,603 |
| Totals | 1,405,321 | 215,885 | 1,561,792 |

¹ Duplications in columns 1 and 2 eliminated.

Section 9.—Organized Labour in Canada

HISTORY OF THE LABOUR MOVEMENT IN CANADA*

Canadian trade union history goes back a surprisingly long way. Nova Scotia had an Act against unions, and therefore presumably some unions, as early as 1816. Printers were organized in Quebec in 1827, and in Montreal and Hamilton in 1833. Shoemakers were organized in Montreal in 1827, carpenters in 1834, and stonecutters in 1844. The York printers were organized in 1832, and the Toronto Typographical Union has a continuous history from 1844. But brief life was the portion of most of these, and it was not until the middle of the nineteenth century that the first small foundations of the present Canadian union structure were laid.

Almost from the beginning, Canadian unionism was predominantly "international"; that is, most of its members belonged to unions with their headquarters and the bulk of their membership in another country. The first "outside" unions were British. The Amalgamated Society of Engineers (ASE) established its first local in Canada in 1850, followed by three more in 1851. The Amalgamated Society of Carpenters and Joiners (ASCJ) in 1860 became the first permanent union in the building trades. The ASE was absorbed into the International Association of Machinists in 1920, and the ASCJ into the United Brotherhood of Carpenters and Joiners in 1914, though some branches seceded in 1922 and resumed their status as locals of the British organization until 1925, when the latter formally withdrew. The much more important American unions began to come in 1861, with the Iron Moulders, followed by the Locomotive Engineers in 1864, the National Typographical Society (now the International Typographical Union) and the Cigar Makers in 1865, the Knights of St. Crispin (shoemakers) in 1867, and the Railway Conductors in 1868. The Coopers arrived in the late 1860's and the Locomotive Firemen in the early 1870's.

At the same time, however, a variety of purely Canadian local unions were springing up: shipwrights [at Victoria and Quebec (1862), Halifax (1863), Saint John and Quebec (1865)], bakers, tailors, bricklayers, stonecutters, wharf porters, longshoremen, and bookbinders.

Until 1871, the various unions had little to do with each other but in that year five craft unions formed the Toronto Trades Assembly. Two years later Ottawa had a flourishing Trades Council which, in 1873 and 1875 succeeded in electing a Labour member, D. J. O'Donoghue, to the Provincial Legislature. Hamilton had a Trades Council about the same time. All of these disappeared in the depression of the 1870's, but not without having laid the foundations of a national organization and won a resounding legislative victory.

In 1873, the Toronto Trades Assembly called a convention of unions in that city, attended by delegates from 31 locals of 14 unions, all in Ontario, though letters of approval came from typographical unions in Quebec and Montreal. This convention decided to set up a national central organization, the Canadian Labor Union, which met again in 1874, 1875, 1876 and 1877. But the depression was as fatal to the national organization as to the local Councils, and from 1878 to 1882 there was not even the shadow of a national trade union centre.

The legislative victory resulted from the Toronto Printers' strike of 1872, part of the nine-hours movement. Most of the master-printers, headed by George Brown of the *Globe*, were fiercely anti-union. They had all 24 members of the committee of the Typographical Union arrested on a charge of seditious conspiracy. Labour had confidently assumed that unions were legal but now discovered they were not. They had benefited from none of the British Acts freeing unions of their Common Law disabilities as conspiracies and combinations in restraint of trade. Legally, Canadian unions were still in the eighteenth century, the age before the Industrial Revolution. They promptly set to work to get Canadian legislation to match the British. Sir John A. Macdonald, delighted

* Prepared by Dr. Eugene Forsey, Director of Research, Canadian Labour Congress, Ottawa.

at the opportunity to win Labour votes and "dish the Liberals" with two pieces of unimpeachably Gladstonian legislation, lost no time in passing through the Dominion Parliament a Trade Unions Act and a Criminal Law Amendment Act (1872) modelled on the British Acts of the previous year. This was the first big piece of successful political action by Canadian unions. The prosecution was dropped and the strike was won.

With the adoption of the national policy of tariff protection in 1879, and the construction of the Canadian Pacific Railway in 1881-85, Canadian industry began to revive and to grow, and the unions revived and grew with it. The building trades showed a marked expansion. The railway unions followed the railways westward. The Nova Scotia coal miners in 1879 formed the first coal miners' union in North America and one of the earliest industrial unions, taking in all workers in the industry regardless of craft. Indeed, this organization, the Provincial Workmen's Association, became for a time almost a provincial "one big union", covering not only coal miners and coal pier workmen but also iron workers, steel workers, railway men, tramway men, glass blowers, boot and shoe workers, retail clerks and about ninety other classifications. The Knights of Labor, also an industrial organization, entered Canada in 1881, and remained active here long after it was practically dead in the United States. Even apart from the Knights, the 1880's saw over a hundred new locals added to those that had survived the depression. Almost half of these were in Ontario, 21 were in the Maritimes, 19 in Quebec and 18 in the West.

The local Councils also revived. The Toronto Trades and Labor Council was organized in 1881, the London Council in 1883, the Montreal Council in 1885, and others in Ottawa, Brantford, Hamilton, Vancouver and Victoria at various dates during the 1880's. At first the Knights of Labor took part in these Councils and often a very active part, but towards the close of the decade they formed their own district assemblies in Montreal, Quebec, Toronto, St. Catharines and St. Thomas.

With the revival of the Councils came also a revival of the national central organization. In 1883, a committee of the Toronto Council issued a call to all labour organizations to send delegates to a national convention. This set up the Canadian Labor Congress, consisting of delegates from unions and Knights of Labor assemblies in Ontario only.

In September 1886, three months before the founding of the American Federation of Labor, the Toronto Trades and Labor Council summoned the Congress to meet again, and the "Canadian Trades and Labor Congress" (which in 1887 became the "Trades and Labor Congress of the Dominion of Canada", in 1888 the "Dominion Trades and Labor Congress", and in 1892 the "Trades and Labor Congress of Canada") was born. The first convention had 109 delegates, including one woman. All were from Ontario except one from Quebec City. Of the total, at least 84 were Knights of Labor. The Knights had a majority of the delegates also at the conventions of 1887-1889, 1891, 1893 and 1894, and a Knight held the Congress presidency from 1886 to 1892 inclusive. After 1894, however, the Knights rapidly declined and in 1902 they were expelled from the Congress.

Until 1896 the Congress was far from being a nation-wide organization. At the conventions of 1887 and 1888 all the delegates were from Ontario. From 1889 on, there was always a substantial delegation from Quebec; in 1890 British Columbia sent three delegates and in 1895 Manitoba sent one; in 1896 British Columbia sent two and Manitoba one. New Brunswick sent its first delegate in 1897, Prince Edward Island in 1900 and Nova Scotia in 1903, but in 1905 and 1906 there were no Maritime delegates at all. Provincial Executives for British Columbia and Manitoba were elected in 1895, for New Brunswick in 1896, and for Nova Scotia and Prince Edward Island in 1901. Saskatchewan and Alberta were represented from the beginning of their existence. Even in 1901, however, the last year before unity was shattered by the expulsion of the Knights of Labor and other organizations competing with American Federation of Labor unions, the Congress had only 8,381 members in all its unions, and its expenditure for the year was \$809.88. In 1902, for the first time, it engaged "a stenographer and a typewriter", which "necessitated the fitting up of a small office with two desks and a chair".

From 1896 on, Canadian trade unionism had to face the problem of reconciling continental union solidarity with Canadian autonomy. The Canadian Labor Union of 1873-1877 had not had to do so because no competing American central labour organization existed. The Trades and Labor Congress at first did not have to either, partly because it confined itself almost wholly to legislative activities (most of its unions were locals of organizations chartered by the American Federation of Labor or local assemblies of the Knights of Labor) and partly because it seems to have had, till 1896, no formal contact with the American Federation of Labor. In that year, the Congress complained to the Federation about the application of the American Alien Contract Labor Law to Canadian workers. The Federation replied by suggesting that the Congress send a fraternal delegate to its convention. This it did not do, but in 1898 the Federation was invited to send a fraternal delegate to the Congress convention, and in 1899 the two began an exchange that lasted as long as the Congress itself.

By expelling the Knights of Labor and purely Canadian 'dual' organizations in 1902, the Congress ranged itself definitely on the side of international unionism as against national. It did not, however, by any means accept the subordinate role that the Federation repeatedly tried to impose upon it. From 1897 on, it kept trying to get the international unions, or the Federation on their behalf, to turn over to the Congress the dues these unions paid to the Federation on their Canadian membership. It finally solved this problem by getting the international unions to affiliate their Canadian membership direct. The Federation persisted, right down to 1955, in chartering local unions in Canada. It also made repeated unsuccessful attempts to deny the Congress the right to charter local Trades and Labor Councils, and it took the Congress 35 years (1910 to 1945) to win complete victory. The Federation was successful in forcing the Congress to expel, in 1939, a whole group of unions belonging to the Congress of Industrial Organizations (CIO), but only after a struggle. A similar attempt, in 1946, to force expulsion of the Machinists met a firm and spirited refusal, and collapsed. After this, the Congress decided to assert itself by setting up a series of departments and a full-scale organizing staff and otherwise make plain the status it felt it did, and should, enjoy as a fully autonomous Canadian trade union centre.

None of these disputes, however, really disturbed the basic harmony between the Congress and the Federation. The Congress, made up overwhelmingly of international unions whose American members were affiliated to the Federation, never faltered in its allegiance to international unionism. It knew that in most industries international unions alone had the staff, experience and money to do the job that had to be done.

Meanwhile, however, the whole Canadian Labour Movement had been "by schisms rent asunder, by heresies distrest". Nationalism, industrial as against craft unionism, revolutionary ideas, and a mixture of nationalism and denominationalism all played their part. The unions expelled by the Trades and Labor Congress in 1902 promptly formed the National Trades and Labour Congress, which in 1908 became the Canadian Federation of Labour, and in 1910 took in the Provincial Workmen's Association of Nova Scotia. In 1919, just after the Winnipeg general strike, and partly as a result of it, many western unionists, attracted by revolutionary industrial unionism, broke away from the Trades and Labor Congress and formed the One Big Union. Between 1901 and 1921, small local Roman Catholic unions (some of them former Knights of Labor Assemblies) sprang up in Quebec under the fostering care of the hierarchy and clergy, and in 1921 formed the Canadian and Catholic Confederation of Labour. This organization, at first distrusted and denounced by the orthodox unions as a collection of thinly veiled "company unions", has in the past ten years shed the narrow denominationalism and nationalism of its early years and become one of the most militant labour organizations in the country. In 1927, the Canadian Federation of Labour and other national unions (notably the Canadian Brotherhood of Railway Employees, which had been founded in 1908, had entered the Trades and Labor Congress in 1917 and had been expelled from it in 1921) formed the All-Canadian Congress of Labour, dedicated to industrial and national unionism. By 1935, purely Canadian unions of one kind or another, including the Communist Workers'

Unity League, made up nearly half the total union membership in Canada. Within a few years, however, international unionism reasserted its predominance and for many years now about 70 p.c. of all Canadian unionists have belonged to international unions.

The great debate in the United States in the 1930's over the relative merits of industrial and craft unionism found only faint echoes in Canada. The Trades and Labor Congress had, and was prepared to have, both kinds, and it was most reluctant to expel the Canadian branches of CIO unions. But, faced with a virtual ultimatum from the American Federation of Labor that it must either expel the CIO unions or lose the AFL unions (whose Canadian membership was then far larger), it had really no choice, and in 1939 the CIO unions were accordingly cast forth. They at once formed a Canadian CIO Committee, which became the fourth Canadian central organization.

Through all these changes and chances, the four railway running trades (Conductors, Engineers, Firemen and Trainmen) remained unaffiliated with any central body, though every one of them had occasionally sent delegates to Trades and Labor Congress conventions, and in 1896 their joint Legislative Board had sent two delegates, of whom one was elected to the Congress Executive. The "big four", however, co-operated with each other and two Congress railway unions in a Dominion Joint Legislative Committee.

Late in 1939 came the first step towards unity (though, paradoxically, it created the first effective opposition to the Trades and Labor Congress). The All-Canadian Congress and the Canadian CIO Committee agreed to unite in the Canadian Congress of Labour, which was set up in 1940, with complete autonomy not only for itself but for the Canadian branches of CIO unions. Contrary to most expectations, this new Congress not only survived but grew and waxed strong, organizing mass production industries and pioneering in labour research, workers' education and labour public relations. For the next fifteen years, both Congresses passed resolutions almost every year in favour of unity and, from 1948 on, joint action on various matters became increasingly common. A Joint Consultative Committee of the two Congresses, the Canadian and Catholic Confederation and the Dominion Joint Legislative Committee was set up in 1951 but lasted only a year. As long as the two American central bodies were at loggerheads, their Canadian counterparts could make little progress towards reunion, because of the provisions of the Trades and Labor Congress Constitution which in effect forbade it to affiliate any union 'dual' to an American Federation of Labor union. Once the Americans agreed to discuss unity, this blockage disappeared. By the end of 1953 the two Canadian Congresses had appointed a joint Unity Committee, which first (1954) drew up a "No-raiding Agreement" (under which unions of the rival organizations agreed not to try to steal each others' members) and in 1955 a "Merger Agreement". After ratification by the two Congress conventions, the Merger Agreement came into force, and the founding convention of the united Canadian Labour Congress (CLC) took place in April 1956. In January 1957, the small and respectable remnant of the once powerful and revolutionary One Big Union joined the new Congress, the Locomotive Firemen followed in February, and the Trainmen in September. Meanwhile, both the Congress and the Canadian and Catholic Confederation of Labour had voted in favour of the latter's affiliation, and negotiations to this end are proceeding. The only unions of any size which remain altogether outside the unity movement are: the two big Communist-dominated unions expelled by the Canadian Congress of Labour; the United Mine Workers, which excluded itself by failing to pay its dues to that Congress; the Railway Conductors and the Locomotive Engineers; and the Operating Engineers, suspended by the new Congress. The total membership of the CLC (which, though made up mainly of international unions, is completely autonomous) is about 1,100,000, or over 80 p.c. of all trade unionists in Canada. It includes both craft and industrial unions, and both national and international unions.

No adequate history even of the central organizations, let alone the whole Movement, has yet been written. The material is voluminous and much of it is fascinating, not only in itself but for the light it sheds on Canadian social history in general, and on Canadian political history.

In some respects, Canadian trade unionism has changed almost out of all recognition since the first Canadian Labor Congress was founded almost three-quarters of a century ago. In others, it has changed very little. Some proposals which figured prominently in the early years have completely disappeared, sometimes because they have been carried into law, and sometimes because circumstances have made them obsolete or the whole climate of opinion has changed. Other early demands still figure in the present Canadian Labour Congress' Platform of Principles.

Of the early proposals that have completely disappeared, perhaps the most conspicuous is temperance. The Congress of 1883 unanimously passed a resolution of "hearty approval" for "any practical legislation tending to reduce the consumption of intoxicating liquor". In 1886, this became "any practical effort". The 1888 convention reaffirmed this. The 1886 convention actually received a deputation from the Dominion Alliance and empowered the Congress Executive to co-operate with the Alliance. The 1889 and 1890 conventions called upon all labour organizations to use their influence to promote and encourage temperance. The 1890 convention defeated a resolution for total prohibition by only 30 votes to 23. The convention of 1898 tabled a motion for a plebiscite on prohibition.

Quite as surprisingly, until 1902, the Trades and Labor Congress consistently demanded compulsory arbitration of labour disputes, and passed several resolutions in favour of incorporation of unions, both now anathema to Labour. Henry George's Single Tax on land values was also a hardy annual till 1899, and a diluted form of it survived in the Platform of Principles at least as late as 1912. The initiative and referendum made their appearance as early as 1892, and were still in the Platform in 1913. In 1887, the Congress voted to abolish Lieutenant-Governorships and make the Governor General elective. The latter proposal was passed again in 1890, by 39 to 14. The convention of 1893 wanted to abolish the office of High Commissioner in London. Those of 1892 and 1893 wanted to have a popular vote on "maintenance of our present colonial status; Imperial Federation; Canadian Independence; Political Union with the United States". The conventions of 1886-1888 wanted to have the Government issue all money; that of 1893 wanted it to "demonetize both gold and silver". The convention of 1891 wanted to have the products of anti-union employers deprived of tariff protection; that of 1893 "pronounced in favor of free trade"; that of 1902 condemned any increase in the tariff; those of 1903 and 1905 condemned Mr. Chamberlain's protective tariff proposals for Britain. The conventions of 1907, 1908 and 1909 bluntly declared "that as the capitalists of the world create war, they should do their own fighting", and that of 1909 empowered the Executive to "take the lead in calling a convention of all peace-loving citizens in Canada" to protest against increases in military expenditures. The 1911 convention endorsed a general strike against war. The conventions of 1888-1890 and 1900 condemned manual training in the schools. The conventions of 1886-1889 wanted governments to stop making grants to universities and colleges and to transfer the money to the schools. The convention of 1909 "offered up a sincere prayer that the light of common sense may yet reach the Canadian Manufacturers' Association".

The early demands for one day of rest in seven, "anti-truck" laws, provincial and Dominion bureaus of labour statistics, a Labour Department, a separate Minister of Labour, Employer's Liability Acts, manhood suffrage, and woman suffrage (1891), have all, in one form or another, been won. The nine-hour day has become the six-hour day, and the early and violently restrictive resolutions on immigration (first anti-Chinese, then anti-Japanese also, then anti-Indian as well, and always anti-pauper) have become "planned immigration for full employment", with a representative National Advisory Committee to keep the Act, regulations and policy under constant review and to suggest changes. Early demands which still figure in the Canadian Labour Congress Platform include the abolition of the Senate, public ownership of banks and public utilities, a living minimum wage, free compulsory education and support for co-operatives.

One subject which figured prominently in the early conventions of the Trades and Labor Congress and then seems to have dropped out of sight for a whole generation is co-operation with the farmers. In 1886, the Congress appointed a committee to meet with the Dominion Grange "to secure to some extent united action" on the Factory Act. In 1893 the Congress Executive met with representatives of the Grange, the Patrons of Industry (another farm organization) and the Social Problems Conference and adopted a common "platform". In the same year, the convention set up a standing committee with the Patrons "for the purpose of . . . devising a scheme for a union of the labor forces (rural and urban)", and provided for a vote by affiliated organizations on allowing the Grange, the Patrons and Single Tax Associations to affiliate. The returns from the affiliates were considered too scattered to provide any basis for policy. None the less, in 1894, the Constitution was amended to let the Patrons affiliate and to give them three delegates. Nothing came of this and the amendment was deleted next year. But, undaunted, in 1896 the Congress agreed on the desirability of unity with the Patrons and instructed the Executive to be represented at any meeting called by the Patrons. The 1907 convention had a delegate from the Canadian Branch of the American Society of Equity, another farmers' organization, and the Alberta Executive of the Congress wanted the convention to discuss a possible amalgamation of the "Trades and Labor party" with this Society. In 1910, the Executive recommended the appointment of a special committee to arrange co-operation with the farmers.

From 1941 on, both the Trades and Labor Congress and the new Canadian Congress of Labour devoted some attention to farmer-labour co-operation. The former, in 1941, "recognized that the well-being of labor is inseparably bound up with the prosperity of the farmer" and, fearing that "many farmers" would be "driven off the land" and "forced into competition with workers thereby driving down wages", expressed its "sympathy and support for the farmers to secure adequate debt protection and parity of farm prices". In the same year, the newer Congress declared in favour of co-operating with farm associations wherever possible and of Government aid in marketing farm produce in any friendly country. The next year, the Trades and Labor Congress called on the Government to help the farmers meet the shortages of machinery and services. In 1946 both Congresses supported the Alberta farmers' strike; the older declared for "close co-operation" between the Congress and its provincial bodies and national and provincial farm organizations; the younger suggested a conference of "Labour organizations and the official spokesman of the farmers" to work towards "complete unity . . . in our demands for social security". In 1947 the Canadian Congress of Labour declared its support for the farmers "in their attempt to get a fair price for their products", and in 1948 pledged itself to do all it could to promote "farmer-Labour-teacher" co-operation for "common aims and objectives", along the lines of the Saskatchewan Occupational Group Council. In 1949 the Trades and Labor Congress listened to a speech of greeting from the President of the Alberta Farmers' Union (which was already affiliated with the Calgary Trades and Labor Council). In 1951 the Canadian Congress of Labour called on the Government to work out with farm organizations "a just farm price-structure". The next year the older Congress had another speech of greetings, this time from the President of the Interprovincial Farm Union Council, and the other Congress declared for a "National Co-ordinating Committee of Farm and Labour organizations". From 1953 to 1955 both Congresses had farm speakers each year; so did the new Canadian Labour Congress at its founding convention in 1956. In February 1954 the two Congresses and the Interprovincial Farm Union Council set up the Farmer-Labour Economic Council, which still exists.

One other subject of great importance which in some form or other has had a place in almost every national meeting of labour organizations since 1883 is political action. The Canadian Labor Congress of 1883 unanimously resolved that "the working class of this Dominion will never be properly represented in Parliament or receive justice in the legislation of the country until they are represented by men of their own class and opinions". The 1886 convention reaffirmed this and the members pledged themselves to "use their utmost endeavours, wherever practicable, to bring out candidates for the local and Dominion elections" or, where this was not "deemed advisable", to support the candidate "who

pledges himself to vote for most planks of the platform of this Congress". The 1887 convention dropped this last part and adopted the remainder unanimously. The 1889 convention set up a committee to consider forming an "independent political party" and recommended the organizations to nominate candidates where practicable and elsewhere to support the party which was prepared to do most for Labour. In 1892, on motion of two French-Canadian delegates, the convention resolved to "take into consideration the advisability of forming a labor party". Perhaps as part of the consideration, the 1893 convention invited its member organizations to answer four questions: (1) Are you in favor of the present industrial system? (2) Are you in favor of the so-called co-operative system of productive (sic) distribution and exchange? (3) Are you in favor of the communistic system of government? (4) Have you any other system better than the above to suggest? (Strange to say, there were almost no replies.) In 1895, by a very narrow majority, the convention voted to admit "sections of the Socialist Labor Party" (this was repealed in 1896) and resolved that "labor organizations should now unite for independent political action".

Meanwhile, some organizations had actually been taking political action. During the 1880's, the Toronto and Hamilton Trades and Labor Councils had nominated candidates for both provincial and Dominion elections, and in 1886 the Knights of Labor ran three provincial candidates in Montreal. None were elected, and for practical purposes the Congress seems to have relied for some years on what was later to become the standard practice of meeting Dominion and provincial Ministers to present its views. By 1899, however, the Ontario Executive had decided that this was useless, and that "the only way to get from the Government what is our right is to elect men in sympathy with the labor cause". In the same year, the Winnipeg Trades and Labor Council and the Winnipeg Labor Party nominated A. W. Puttee for the House of Commons; and the Congress, presided over by Ralph Smith, M.L.A. for Nanaimo, B.C., decided to ask its member organizations whether they favoured an independent Labour party and would back its candidates. The vote was 1,424 in favour to 167 against, with only three organizations out of 44 voting "no". The 1900 convention decided this was enough to justify the Congress in "taking such steps as it deemed advisable to further the progress of such action". It also asked the Nanaimo miners to nominate President Smith for the House of Commons. They did; and both Smith and Puttee were elected, with another Labour candidate in Manitoba barely defeated. In 1903 a new Congress President, John Flett, was declaring that the meetings with the Dominion Government were useless, and that Canadian Labour should follow the British example and elect Labour men to Parliament. In 1904 he reiterated this, and for three years the annual interview was dropped and a parliamentary counsel was substituted to look after Congress interests full-time during the session. In 1903, 1904 and 1905 the conventions passed resolutions favouring independent Labour candidates wherever possible. In 1906, Alphonse Verville, President of the Congress, was elected to the House of Commons for Maisonneuve (Montreal), and declared he hoped for "at least a dozen" Labour members in the next Parliament. The convention responded by adopting what became the political action policy of the Trades and Labor Congress for the rest of its life. The Congress was to endorse sending Labour representatives to Parliament and the Legislatures; its provincial Executives were to summon provincial conventions of trade unionists and sympathizers to set up "the necessary associations"; and the Congress was then to step out of the picture, having "recommended" its own Platform of Principles as the platform for "this independent effort". The result of this was the foundation of a Canadian Labour Party in Ontario, Quebec, Manitoba, British Columbia and Nova Scotia. Though launched with considerable fanfare, especially in Ontario, for the most part this did not amount to much. Its only substantial success was in Ontario in 1919, when eleven Labour candidates were elected and two Labour Ministers entered the Farmer-Labour coalition. A few surviving sections entered the Co-operative Commonwealth Federation (CCF) in 1932 and 1933, along with the Independent Labour Party of Manitoba, which had elected two members to the House of Commons.

The Canadian Congress of Labour explicitly endorsed the CCF in 1943 and continued to do so throughout the remainder of its existence. It set up political action committees to implement this policy. Its efforts certainly helped the CCF to win power in Saskatchewan in 1944 and to retain it ever since; to maintain its position as the official Opposition in British Columbia for most of the past twenty years; to become briefly, though for the second time, the official Opposition in Ontario from 1948 to 1951; to win a few seats in the Nova Scotia Legislature; and to carry some industrial ridings in the House of Commons in the elections of 1945, 1949, 1953 and 1957. But on the whole the results were not what the Congress had hoped.

The Canadian Labour Congress at its first convention adopted a compromise policy on political action, leaving its provincial Federations, its local Councils and, of course, its autonomous affiliated unions free to follow whatever line they saw fit, and authorizing its Political Education Committee, under the guidance of the Executive Council, to initiate discussions with other free trade unions, the principal farm organizations, the co-operative movement, the CCF and "other parties pledged to support the legislative programme" of the Congress, in order "to explore and develop co-ordination of action in the legislative and political field". So far, no such discussions have taken place. The Ontario and British Columbia Federations and some important local Labour Councils have endorsed the CCF and several important unions that already were supporting the CCF have continued to do so.

This is, necessarily, hardly more than an impressionistic sketch of the history of the Canadian Labour Movement. Of the constant preoccupation of the Congresses with specific union problems, with questions of health and safety and general working conditions, and with a host of other matters, it has said nothing; nor has it so much as touched on the various unions which make up the central organizations and are, for many purposes, far more important—the affiliated unions do all the collective bargaining, have most of the money and are fully autonomous. It has barely mentioned the important Canadian and Catholic Confederation of Labour. But, again, the history even of the Congresses, let alone the particular unions, has yet to be written. Until it is, any summary must be preliminary, tentative and subject to drastic revision.

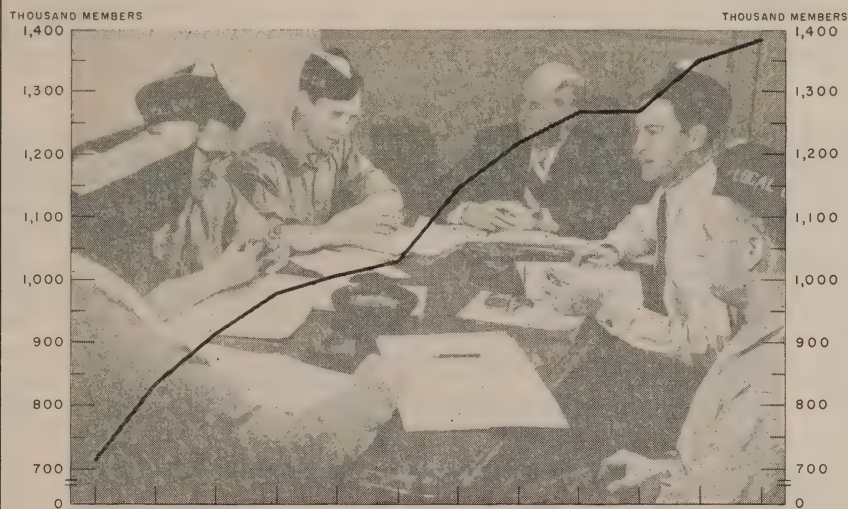
Labour Union Statistics.—Tables 33, 34 and 35 give historical and current figures on union membership in Canada.

33.—Membership of Labour Unions in Canada 1927-57

| Year | Members | Year | Members | Year | Members |
|-----------|---------|-----------|---------|-------------------------|-----------|
| | No. | | No. | | No. |
| 1927..... | 290,282 | 1937..... | 383,492 | 1947..... | 912,124 |
| 1928..... | 300,602 | 1938..... | 381,645 | 1948..... | 977,594 |
| 1929..... | 319,476 | 1939..... | 358,967 | 1949..... | 1,005,639 |
| 1930..... | 322,449 | 1940..... | 362,223 | | |
| 1931..... | 310,544 | 1941..... | 461,681 | 1951 ¹ | 1,028,521 |
| | | | | 1952..... | 1,146,121 |
| 1932..... | 283,096 | 1942..... | 578,380 | 1953..... | 1,219,714 |
| 1933..... | 285,720 | 1943..... | 664,533 | 1954..... | 1,267,911 |
| 1934..... | 281,274 | 1944..... | 724,188 | 1955..... | 1,268,207 |
| 1935..... | 280,648 | 1945..... | 711,117 | 1956..... | 1,351,652 |
| 1936..... | 322,746 | 1946..... | 831,697 | 1957..... | 1,336,185 |

¹ Figures for 1949 and previous years are as at Dec. 31; figures from 1951 are as at Jan. 1.

MEMBERSHIP OF LABOUR UNIONS IN CANADA, 1945-57



34.—Union Membership and Local Branches in Canada as at Jan. 1, 1955-57

| Organization | Jan. 1, 1955 | | Jan. 1, 1956 | |
|---|--------------------------|------------------|--------------|------------------|
| | Branches | Membership | Branches | Membership |
| | No. | No. | No. | No. |
| Trades and Labor Congress of Canada ¹ | 3,598 | 600,791 | 3,765 | 640,271 |
| American Federation of Labor only..... | 54 | 9,290 | 24 | 1,050 |
| Canadian Congress of Labour ¹ | 1,532 | 361,271 | 1,440 | 377,926 |
| Congress of Industrial Organizations only..... | 9 | 2,500 | — | — |
| Canadian and Catholic Confederation of Labour..... | 445 | 99,801 | 432 | 101,169 |
| International Railway Brotherhoods (Independent)..... | 365 | 40,307 | 366 | 43,877 |
| Unaffiliated international, national, regional and local unions.. | 670 | 154,247 | 735 | 187,359 |
| Totals..... | 6,673 | 1,268,207 | 6,762 | 1,351,652 |
| | May 1, 1956 ² | | Jan. 1, 1957 | |
| | Branches | Members | Branches | Members |
| | No. | No. | No. | No. |
| Canadian Labour Congress..... | 5,238 | 1,030,000 | 5,404 | 1,070,129 |
| Canadian and Catholic Confederation of Labour..... | 432 | 101,000 | 411 | 99,372 |
| American Federation of Labor—Congress of Industrial Organi- zations..... | 24 | 1,000 | 17 | 1,184 |
| International Railway Brotherhoods (Independent) ³ | 366 | 44,000 | 257 | 33,594 |
| Unaffiliated international, national, regional and local unions.. | 702 | 175,000 | 669 | 181,906 |
| Totals..... | 6,762 | 1,351,000 | 6,758 | 1,386,185 |

¹ Amalgamated as at May 1, 1956.² Estimated membership at the founding of the Canadian Labour Congress.³ The Brotherhood of Locomotive Firemen and Enginemen affiliated with Canadian Labour Congress on Oct. 1, 1956.

**35.—Labour Unions Reporting 1,000 or more Members in Canada as
at Jan. 1, 1955-57**

| Organization | Reported or Estimated Membership | | |
|--|-------------------------------------|--------|--------|
| | 1955 | 1956 | 1957 |
| | No. | No. | No. |
| International Unions | | | |
| Asbestos Workers, International Association of Heat and Frost Insulators and (AFL-CIO/CLC)..... | 572 | 897 | 1,003 |
| Automobile, Aircraft and Agricultural Implement Workers of America, International Union, United (AFL-CIO/CLC)..... | 60,000 | 65,000 | 60,000 |
| Bakery and Confectionery Workers' International Union of America (AFL-CIO/CLC)..... | 4,833 | 5,000 | 5,668 |
| Barbers, Hairdressers, Cosmetologists and Proprietors' International Union of America, The Journeymen (AFL-CIO/CLC)..... | 1,714 | 1,681 | 1,798 |
| Boilermakers, Iron Ship Builders, Blacksmiths, Forgers and Helpers, International Brotherhood of (AFL-CIO/CLC)..... | 10,300 | 11,340 | 11,260 |
| Bookbinders, International Brotherhood of (AFL-CIO/CLC)..... | 2,788 | 2,775 | 2,775 |
| Brewery, Flour, Cereal, Soft Drink and Distillery Workers of America, International Union of United (AFL-CIO/CLC)..... | 4,500 | 4,500 | 5,000 |
| Bricklayers, Masons and Plasterers' International Union of America (AFL-CIO/CLC)..... | 6,151 | 6,219 | 6,219 |
| Bridge, Structural and Ornamental Iron Workers, International Association of (AFL-CIO/CLC)..... | 6,787 | 6,410 | 8,888 |
| Broadcast Employees and Technicians, National Association of (AFL-CIO/CLC)..... | 965 | 1,157 | 1,202 |
| Building Service Employees' International Union (AFL-CIO/CLC)..... | 5,038 | 6,200 | 7,029 |
| Carpenters and Joiners of America, United Brotherhood of (AFL-CIO/CLC)..... | 54,709 | 56,694 | 68,020 |
| Cement, Lime and Gypsum Workers International Union, United (AFL-CIO/CLC)..... | 2,705 | 2,962 | 3,388 |
| Chemical Workers' Union, International (AFL-CIO/CLC)..... | 12,500 | 13,000 | 13,300 |
| Clothing Workers of America, Amalgamated (AFL-CIO/CLC)..... | 15,000 | 15,000 | 15,000 |
| Commercial Telegraphers' Union, The (AFL-CIO/CLC)..... | 4,502 | 5,341 | 5,341 |
| Communications Workers of America (AFL-CIO/CLC)..... | 2,700 | 2,700 | 2,700 |
| Distillery, Rectifying, Wine and Allied Workers' International Union of America (AFL-CIO/CLC)..... | 3,300 | 3,300 | 3,300 |
| Electrical, Radio and Machine Workers, International Union of (AFL-CIO/CLC)..... | 15,000 | 16,000 | 16,000 |
| Electrical, Radio and Machine Workers of America, United, (Ind.)..... | 22,500 | 23,000 | 24,500 |
| Electrical Workers, International Brotherhood of (AFL-CIO/CLC)..... | 23,000 | 23,500 | 23,550 |
| Engineers, American Federation of Technical (AFL-CIO/CLC)..... | 900 | 884 | 1,012 |
| Engineers, International Union of Operating (AFL-CIO/CLC)..... | 9,055 | 10,200 | 13,000 |
| Fire Fighters, International Association of (AFL-CIO/CLC)..... | 7,325 | 8,155 | 8,337 |
| Firemen and Oilers, International Brotherhood of (AFL-CIO/CLC)..... | 2,200 | 2,200 | 2,100 |
| Garment Workers of America, United (AFL-CIO/CLC)..... | 1,450 | 1,500 | 1,900 |
| Garment Workers' Union, International Ladies, (AFL-CIO/CLC)..... | 13,736 | 14,194 | 14,191 |
| Glass and Ceramic Workers of North America, United (AFL-CIO/CLC)..... | 1,820 | 4,420 | 4,650 |
| Hatters, Cap and Millinery Workers International Union, United (AFL-CIO/CLC)..... | 3,500 | 3,500 | 3,500 |
| Hod Carriers', Building and Common Labourers' Union of America, International (AFL-CIO/CLC)..... | 9,910 | 12,041 | 16,170 |
| Hotel and Restaurant Employees and Bartenders International Union (AFL-CIO/CLC)..... | 11,768 | 12,281 | 13,107 |
| Leather Goods, Plastics and Novelty Workers Union, International (AFL-CIO/CLC)..... | 300 | 400 | 1,050 |
| Lithographers of America, Amalgamated (AFL-CIO/CLC)..... | 1,912 | 1,984 | 2,137 |
| Locomotive Engineers, Brotherhood of (Ind.)..... | 8,149 | 8,293 | 8,293 |
| Locomotive Firemen and Enginemen, Brotherhood of (AFL-CIO/CLC)..... | 8,856 | 10,045 | 10,603 |
| Longshoremen's Association, Independent, International (CLC)..... | 6,500 | 6,000 | 6,000 |
| Longshoremen's and Warehousemen's Union, International (CLC)..... | 1,500 | 2,000 | 2,000 |
| Machinists, International Association of (AFL-CIO/CLC)..... | 49,097 | 47,208 | 49,423 |
| Maintenance of Way Employees, Brotherhood of (AFL-CIO/CLC)..... | 20,000 | 20,000 | 20,000 |
| Meat Cutters and Butcher Workmen of North America, Amalgamated (AFL-CIO/CLC)..... | 1,450 | 4,382 | 4,382 |
| Metal Workers' International Association, Sheet (AFL-CIO/CLC)..... | 4,810 | 4,812 | 5,125 |
| Millers, American Federation of Grain (AFL-CIO/CLC)..... | 200 | 1,000 | 1,050 |
| Mine, Mill and Smelter Workers, International Union of (Ind.)..... | 32,000 | 32,000 | 33,000 |
| Mine Workers of America, United (Ind.)..... | 23,750 | 26,021 | 23,604 |
| Molders' and Foundry Workers' Union of North America, International (AFL-CIO/CLC)..... | 6,800 | 6,526 | 6,526 |
| Musicians of the United States and Canada, American Federation of (AFL-CIO/CLC)..... | 11,381 | 12,026 | 12,621 |
| Newspaper Guild, American (AFL-CIO/CLC)..... | 1,144 | 1,507 | 1,995 |
| Office Employees' International Union (AFL-CIO/CLC)..... | 2,671 | 3,176 | 3,800 |
| Oil, Chemical and Atomic Workers International Union (AFL-CIO/CLC)..... | 4,628 | 7,976 | 7,976 |
| Packinghouse Workers of America, United (AFL-CIO/CLC)..... | 21,149 | 21,857 | 21,104 |
| Painters, Decorators and Paperhangers of America, Brotherhood of (AFL-CIO/CLC)..... | 5,703 | 6,395 | 6,722 |
| Papermakers and Paperworkers, United (AFL-CIO/CLC)..... | 6,000 | 8,000 | 8,500 |

35.—Labour Unions Reporting 1,000 or more Members in Canada as at Jan. 1, 1955-57—continued

| Organization | Reported or Estimated Membership | | |
|---|-------------------------------------|-------------|-------------|
| | 1955 No. | 1956 No. | 1957 No. |
| International Unions—concluded | | | |
| Plasterers' and Cement Masons' International Association of the United States and Canada, Operative (AFL-CIO/CLC)..... | 1,962 | 2,308 | 2,582 |
| Plumbing and Pipe Fitting Industry of the United States and Canada, United Association of Journeymen and Apprentices of the (AFL-CIO/CLC)..... | 16,139 | 15,364 | 17,871 |
| Printing Pressmen and Assistants' Union of North America, International (AFL-CIO/CLC)..... | 6,845 | 6,896 | 6,819 |
| Pulp, Sulphite and Paper Mill Workers, International Brotherhood of (AFL-CIO/CLC)..... | 31,957 | 33,890 | 33,890 |
| Railroad Telegraphers, The Order of (AFL-CIO/CLC)..... | 9,538 | 10,041 | 10,201 |
| Railroad Trainmen, Brotherhood of (Ind.)..... | 22,101 | 23,428 | 24,304 |
| Railway and Motor Coach Employees of America, Amalgamated Association of Street, Electric (AFL-CIO/CLC)..... | 12,143 | 11,647 | 11,327 |
| Railway and Steamship Clerks, Freight Handlers, Express and Station Employees, Brotherhood of (AFL-CIO/CLC)..... | 18,363 | 20,879 | 21,061 |
| Railway Carmen of America, Brotherhood of (AFL-CIO/CLC)..... | 26,356 | 24,347 | 24,347 |
| Railway Conductors and Brakemen, Order of (Ind.)..... | 1,201 | 2,111 | 997 |
| Retail Clerks International Association (AFL-CIO/CLC)..... | 3,604 | 3,653 | 4,041 |
| Retail, Wholesale and Department Store Union (AFL-CIO/CLC)..... | 15,000 | 11,500 | 11,500 |
| Rubber, Cork, Linoleum and Plastic Workers of America, United (AFL-CIO/CLC)..... | 10,400 | 10,200 | 10,300 |
| Seafarers' International Union of North America (AFL-CIO/CLC)..... | 8,400 | 10,450 | 10,450 |
| Stage Employees and Moving Picture Machine Operators of the United States and Canada, International Alliance of Theatrical (AFL-CIO/CLC)..... | 1,779 | 1,585 | 1,583 |
| Steelworkers of America, United (AFL-CIO/CLC)..... | 60,000 | 70,000 | 75,000 |
| Teamsters, Chauffeurs, Warehousemen and Helpers of America, International Brotherhood of (AFL-CIO/CLC)..... | 22,812 | 26,679 | 29,275 |
| Textile Workers of America, United (AFL-CIO/CLC)..... | 5,000 | 6,403 | 8,980 |
| Textile Workers Union of America (AFL-CIO/CLC)..... | 16,750 | 17,000 | 17,132 |
| Tobacco Workers' International Union (AFL-CIO/CLC)..... | 5,323 | 5,654 | 5,654 |
| Typographical Union, International (AFL-CIO/CLC)..... | 6,471 | 6,653 | 6,786 |
| Upholsterers' International Union of North America (AFL-CIO/CLC)..... | 1,959 | 1,888 | 1,938 |
| Woodworkers of America, International (AFL-CIO/CLC)..... | 33,881 | 40,265 | 43,911 |
| National Unions | | | |
| Authors and Artists, Canadian Council of (CLC)..... | — | 2,248 | 2,266 |
| Bâtiment et Fédération du bois Nationale Catholique des Métiers du (National Catholic Federation of Building and of Construction Materials Trades (CCCL)..... | 19,513 | 19,104 | 19,104 |
| Bois ouvré du Canada, Inc., Fédération Catholique des Travailleurs du (Catholic Federation of Wood Workers of Canada, Inc.) (CCCL)..... | 4,253 | 4,227 | 4,213 |
| Chaussure du Canada, Inc., Fédération Nationale du Cuir et de la (National Federation of Leather and Shoe Workers of Canada, Inc.) (CCCL)..... | 3,800 | 3,800 | 3,900 |
| Chimique, Fédération Nationale des Travailleurs de l'Industrie (National Federation of Chemical Workers) (CCCL)..... | 3,300 | 3,000 | 3,200 |
| Civil Servants of Canada, Amalgamated (CLC)..... | 9,000 | 9,000 | 9,989 |
| Civil Service Association of Alberta, The (CLC)..... | 6,045 | 6,515 | 7,081 |
| Civil Service Association, The Saskatchewan (CLC)..... | 4,730 | 4,866 | 4,969 |
| Commerce, Inc., Fédération Nationale Catholique des Employés du (National Catholic Federation of Commerce Employees, Inc.) (CCCL)..... | 3,600 | 4,000 | 4,000 |
| Cultivateurs (Service Forestier), L'Union Catholique des (Catholic Union of Farmers, Forestry Service) (Ind.)..... | 7,900 | 12,937 | 14,359 |
| Fishermen and Allied Workers' Union, United (Ind.)..... | 6,845 | 7,031 | 7,726 |
| Fishermen, Newfoundland Federation of (Ind.)..... | 4,828 | 5,200 | 5,500 |
| Fishermen's Protective Union (Ind.)..... | 1,500 | 1,500 | 1,500 |
| Fish Handlers' Union (Maritime Division), Canadian (CLC)..... | 1,100 | 1,000 | 1,000 |
| Government Employees' Association, British Columbia (CLC)..... | 9,175 | 9,483 | 10,125 |
| Government Employees' Association, Newfoundland (CLC)..... | 1,200 | 1,200 | 1,200 |
| Imprimerie du Canada, Enrg., Fédération des Métiers de l' (Federation of Printing Trades of Canada, Reg.) (CCCL)..... | 3,500 | 4,250 | 4,250 |
| Labourers' Union, Newfoundland (Ind.)..... | 4,000 | 4,600 | 5,000 |
| Letter Carriers, Federated Association of (CLC)..... | 4,058 | 4,583 | 5,002 |
| Longshoremen's Protective Union (St. John's) (Ind.)..... | 2,000 | 2,000 | 2,000 |
| Lumbermen's Association, Newfoundland (Ind.)..... | 6,500 | 6,500 | 6,500 |
| Marine Engineers of Canada, Inc., National Association of (CLC)..... | 1,405 | 780 | 1,430 |
| Marine Workers' Federation (CLC)..... | 2,500 | 2,600 | 2,600 |
| Merchant Service Guild, Inc., Canadian (CLC)..... | 2,006 | 2,091 | 2,379 |
| Métallurgie, Fédération Nationale de la (National Metal Trades Federation) (CCCL)..... | 13,250 | 15,100 | 16,230 |

35.—Labour Unions Reporting 1,000 or more Members in Canada as at Jan. 1, 1955-57—concluded

| Organization | Reported or Estimated Membership | | |
|--|----------------------------------|--------|--------|
| | 1955 | 1956 | 1957 |
| | No. | No. | No. |
| National Unions—concluded | | | |
| Minière, Inc., Fédération Nationale des Employés de l'Industrie (National Federation of Mining Industry Employees, Inc.) (CCCL)..... | 4,823 | 4,674 | 4,674 |
| Municipales et Scolaires du Canada, Inc., Fédération Nationale des Employés des Corporations (National Federation of Employees of Municipal and School Corporations of Canada, Inc.) (CCCL)..... | 5,360 | 5,510 | 6,014 |
| National Council of Canadian Labour (Ind.)..... | 4,985 | 5,640 | 5,840 |
| One Big Union (CLC)..... | 12,280 | 12,189 | 1,900 |
| Postal Employees Association, Canadian (CLC)..... | 7,125 | 7,600 | 8,900 |
| Public Employees, National Union of (CLC)..... | 18,000 | 25,935 | 30,361 |
| Public Service Employees, National Union of (CLC)..... | 3,300 | 16,500 | 18,000 |
| Pulpe et du Papier, Inc., Fédération Nationale des Travailleurs de la (National Federation of Pulp and Paper Workers, Inc.) (CCCL)..... | 12,300 | 10,600 | 8,500 |
| Radio and Television Employees of Canada, The Association of (CLC)..... | 900 | 1,200 | 1,500 |
| Railway Employees and Other Transport Workers, Canadian Brotherhood of (CLC)..... | 32,707 | 33,851 | 34,436 |
| Railway Mail Clerks' Federation, Canadian (CLC)..... | 1,143 | 1,075 | 1,030 |
| Railwaymen, The Canadian Association of (Ind.)..... | 1,571 | 1,239 | 1,481 |
| Services, Inc., Fédération Nationale Catholique des (National Catholic Federation of Services, Inc.) (CCCL)..... | 5,500 | 6,470 | 6,640 |
| Shipyard General Workers' Federation of British Columbia (CLC)..... | 2,555 | 2,550 | 3,100 |
| Telephone Employees' Association, Canadian (Ind.)..... | 12,043 | 13,797 | 15,680 |
| Telephone Workers of British Columbia, Federation of (Ind.)..... | 4,311 | 4,143 | 4,320 |
| Textile Council, Canadian (Ind.)..... | — | 1,800 | 1,800 |
| Textile, Inc., Fédération Nationale Catholique du (National Catholic Textile Federation, Inc.) (CCCL)..... | 7,440 | 8,290 | 8,630 |
| Traffic Employees' Association (Ind.)..... | 10,138 | 10,500 | 10,096 |
| Unemployment Insurance Commission Association, National (CLC)..... | 5,556 | 6,000 | 6,200 |
| Vêtement, Inc., Fédération Nationale des Travailleurs de l'Industrie du (National Federation of Clothing Industry Workers, Inc.) (CCCL)..... | 5,600 | 5,200 | 5,883 |

Section 10.—Strikes and Lockouts*

The number of strikes in 1956 and the number of workers involved increased from the previous year. However, the significance of the strikes within the economy, as reflected in the number of man-days lost and in the percentage of estimated working time lost, decreased substantially in the second period.

The time loss of about 1,250,000 man-days in 1956 was less than in any one of the previous four years. Similarly, there was a significant drop in the percentage of estimated working time lost and a decrease in the average length of time each worker on strike was idle. These decreases are significant when viewed against the record of bargaining during 1956. Many of the larger bargaining units in several important industries negotiated new contracts during 1956. Among these new agreements, a larger number than in previous years were re-negotiated for periods of longer than one year—the bulk of them for two years. Most settlements included substantial wage and non-wage advances and were reached without interruption to production.

Slightly more than half the strikes occurring in 1956 took place in manufacturing industries, compared with almost two-thirds in this sector in 1955. In fact, the decrease in strike action among workers in manufacturing firms accounted for most of the drop in time lost during 1956. All other industries showed increases in the number of man-days lost; in particular, the mining industry suffered from a large number of small strikes involving relatively limited numbers of workers and of fairly short duration.

* A complete review of strikes and lockouts occurring in each year is given in Department of Labour reports.

36.—Summary Statistics of Strikes and Lockouts 1947-56

| Year | Strikes Beginning during the Year | Strikes and Lockouts in Existence in all Industries during the Year | | | | | | |
|-----------|--|---|----------------|---------------------|-------------------------|--|---|---|
| | | Strikes and Lockouts | Employ- ers | Workers Involved | Time Loss | | | |
| | | | | | Man- Working Days | Average Days per Worker ¹ | Average Days per Worker Involved | Estimate of Working Time ¹ |
| | No. | No. | No. | No. | No. | No. | No. | p.c. |
| 1947..... | 232 | 236 | 1,173 | 104,120 | 2,397,340 | 0.77 | 23.02 | 0.26 |
| 1948..... | 147 | 154 | 674 | 42,820 | 885,793 | 0.27 | 20.68 | 0.09 |
| 1949..... | 132 | 137 | 542 | 51,437 | 1,063,667 | 0.32 | 20.68 | 0.11 |
| 1950..... | 158 | 161 | 345 | 192,153 | 1,389,039 | 0.40 | 7.23 | 0.13 |
| 1951..... | 257 | 259 | 646 | 102,870 | 901,739 | 0.24 | 8.77 | 0.08 |
| 1952..... | 216 | 222 | 518 | 120,818 | 2,879,955 | 0.76 | 23.84 | 0.29 |
| 1953..... | 167 | 174 | 384 | 55,988 | 1,324,715 | 0.35 | 23.66 | 0.13 |
| 1954..... | 156 | 174 | 872 | 62,250 | 1,475,200 | 0.39 | 23.70 | 0.15 |
| 1955..... | 149 | 159 | 386 | 60,090 | 1,875,400 | 0.47 | 31.21 | 0.18 |
| 1956..... | 221 | 229 | 437 | 88,680 | 1,246,000 | 0.29 | 14.05 | 0.11 |

¹Based on the number of non-agricultural wage and salary earners in Canada.

37.—Strikes and Lockouts by Industry 1955 and 1956

| Industry | 1955 | | | | | 1956 | | | | |
|---|---|---------------------|----------------------|-------------------------|----------------------|---|---------------------|----------------------|-------------------------|----------------------|
| | No. of Strikes and Lock- outs | Workers Involved | | Time Loss | | No. of Strikes and Lock- outs | Workers Involved | | Time Loss | |
| | | No. | Per- cent- age | Man- Working Days | Per- cent- age | | No. | Per- cent- age | Man- Working Days | Per- cent- age |
| Agriculture..... | 1 | ... | ... | ... | ... | 1 | ... | ... | ... | ... |
| Logging..... | 2 | 333 | 0.6 | 1,565 | 0.1 | 7 | 2,005 | 2.3 | 24,570 | 2.0 |
| Fishing and Trapping..... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... |
| Mining ^a | 9 | 2,092 | 3.5 | 17,185 | 0.9 | 24 | 17,974 | 20.3 | 58,630 | 4.7 |
| Coal..... | 3 | 1,221 | 2.0 | 4,560 | 0.2 | 15 | 11,619 | 13.1 | 24,080 | 1.9 |
| Other..... | 6 | 871 | 1.5 | 12,625 | 0.7 | 9 | 6,355 | 7.2 | 34,550 | 2.8 |
| Manufacturing..... | 98 | 51,520 | 85.7 | 1,787,430 | 95.3 | 124 | 57,473 | 64.7 | 1,054,560 | 84.6 |
| Vegetable foods, etc..... | 4 | 1,838 | 3.1 | 20,010 | 1.0 | 5 | 817 | 0.9 | 13,400 | 1.1 |
| Tobacco and liquors..... | 1 | 1,386 | 2.3 | 3,930 | 0.2 | 2 | 242 | 0.3 | 12,840 | 1.0 |
| Rubber and its products (including synthetic)..... | 2 | 1,400 | 2.3 | 1,650 | 0.1 | 4 | 1,877 | 2.1 | 2,050 | 0.2 |
| Animal foods..... | 1 | 300 | 0.5 | 6,000 | 0.3 | 1 | 93 | 0.1 | 300 | 0.0 |
| Boots and shoes (leather)... | 5 | 405 | 0.7 | 9,030 | 0.5 | 3 | 153 | 0.2 | 4,820 | 0.4 |
| Fur, leather and other animal products..... | ... | ... | ... | ... | ... | 3 | 334 | 0.4 | 805 | 0.1 |
| Textiles, clothing, etc..... | 16 | 3,677 | 6.1 | 50,230 | 2.7 | 29 | 13,959 | 15.7 | 262,105 | 21.0 |
| Pulp, paper and paper pro- ducts..... | 1 | 799 | 1.3 | 34,800 | 1.9 | 4 | 2,232 | 2.5 | 9,755 | 0.8 |
| Printing and publishing..... | 4 | 121 | 0.2 | 6,865 | 0.4 | 3 | 204 | 0.2 | 4,720 | 0.4 |
| Miscellaneous wood pro- ducts..... | 14 | 1,729 | 2.9 | 13,090 | 0.7 | 14 | 822 | 0.9 | 20,230 | 1.6 |
| Metal products..... | 35 | 35,768 | 59.5 | 1,541,775 | 82.2 | 41 | 33,540 | 37.8 | 695,330 | 55.8 |
| Shipbuilding..... | 1 | 94 | 0.1 | 9,640 | 0.5 | 2 | 1,663 | 1.9 | 4,465 | 0.3 |
| Non-metallic minerals, chemicals, etc..... | 9 | 2,323 | 3.9 | 45,935 | 2.5 | 8 | 1,359 | 1.5 | 17,930 | 1.4 |
| Miscellaneous products..... | 5 | 1,680 | 2.8 | 44,475 | 2.3 | 5 | 178 | 0.2 | 5,810 | 0.5 |
| Construction..... | 23 | 3,259 | 5.4 | 37,185 | 2.0 | 36 | 5,322 | 6.0 | 40,975 | 3.3 |
| Buildings and structures... | 20 | 1,624 | 2.7 | 11,540 | 0.6 | 30 | 4,694 | 5.3 | 29,695 | 2.4 |
| Railway..... | 1 | ... | ... | ... | ... | 1 | ... | ... | ... | ... |
| Bridge ^a | 1 | ... | ... | ... | ... | 1 | ... | ... | ... | ... |
| Highway..... | 2 | 135 | 0.2 | 2,645 | 0.2 | 1 | 62 | 0.1 | 735 | 0.1 |
| Canal, harbour, waterway... | 1 | ... | ... | ... | ... | 1 | 19 | 0.0 | 110 | 0.0 |
| Miscellaneous..... | 1 | 1,500 | 2.5 | 23,000 | 1.2 | 4 | 547 | 0.6 | 10,435 | 0.8 |

For footnotes, see end of table, p. 808.

37.—Strikes and Lockouts by Industry 1955 and 1956—concluded

| Industry | 1955 | | | | | 1956 | | | | |
|--|---|---------------------|----------------------|-------------------------|----------------------|---|---------------------|----------------------|-------------------------|----------------------|
| | No. of Strikes and Lock- outs | Workers Involved | | Time Loss | | No. of Strikes and Lock- outs | Workers Involved | | Time Loss | |
| | | No. | Per- cent- age | Man- Working Days | Per- cent- age | | No. | Per- cent- age | Man- Working Days | Per- cent- age |
| Transportation and Public Utilities | 14 | 2,232 | 3.7 | 27,007 | 1.4 | 10 | 3,891 | 4.4 | 38,460 | 3.1 |
| Steam railways..... | 1 | ... | ... | ... | ... | 1 | ... | ... | ... | ... |
| Electric railways and local bus lines..... | 3 | 391 | 0.7 | 2,270 | 0.1 | 2 | 293 | 0.3 | 3,660 | 0.3 |
| Other local and highway transport..... | 2 | 18 | 0.0 | 26 | 0.0 | 2 | 98 | 0.1 | 250 | 0.0 |
| Water transport..... | 3 | 421 | 0.7 | 19,400 | 1.0 | 4 | 3,447 | 3.9 | 33,450 | 2.7 |
| Air transport..... | 1 | ... | ... | ... | ... | 1 | ... | ... | ... | ... |
| Telegraph and telephone..... | 1 | ... | ... | ... | ... | 1 | ... | ... | ... | ... |
| Electricity and gas..... | 1 | 29 | 0.0 | 25 | 0.0 | 1 | ... | ... | ... | ... |
| Miscellaneous..... | 5 | 1,373 | 2.3 | 5,286 | 0.3 | 2 | 53 | 0.1 | 1,100 | 0.1 |
| Trade | 7 | 257 | 0.4 | 898 | 0.1 | 19 | 1,378 | 1.6 | 20,750 | 1.7 |
| Finance | 1 | ... | ... | ... | ... | 1 | ... | ... | ... | ... |
| Service | 6 | 397 | 0.7 | 4,130 | 0.2 | 9 | 637 | 0.7 | 8,025 | 0.6 |
| Public administration ⁴ | 3 | 320 | 0.6 | 3,450 | 0.2 | 1 | ... | ... | ... | ... |
| Recreation..... | 1 | ... | ... | ... | ... | 1 | ... | ... | ... | ... |
| Business and personal..... | 3 | 77 | 0.1 | 680 | 0.0 | 9 | 637 | 0.7 | 8,025 | 0.6 |
| Miscellaneous | 1 | ... | ... | ... | ... | 1 | ... | ... | ... | ... |
| Totals | 159 | 60,090 | 100.0 | 1,875,400 | 100.0 | 229 | 88,680 | 100.0 | 1,246,000 | 100.0 |

¹ None reported.² Includes non-ferrous metal smelting.³ Includes erection of all large bridges.⁴ Includes water service.

Section 11.—Canada and the International Labour Organization

The Department of Labour is the officially designated liaison agency between the Government of Canada and the International Labour Organization. The ILO was established in 1919, in association with the League of Nations under the Treaties of Peace, with the object of improving labour and social conditions throughout the world by international agreement and legislative action. Under an agreement approved by the General Conference of the International Labour Organization at its 29th Session held at Montreal, Que., Oct. 2, 1946, and by the United Nations General Assembly on Dec. 14, 1946, the Organization became a specialized agency of the United Nations although retaining its autonomy.

The ILO is an association of 69 Member States, financed by their governments, and democratically controlled by representatives of those governments and of their organized employers and workers. It is comprised of three main organs: (1) the International Labour Conference; (2) the International Labour Office, and (3) the Governing Body. Since World War II the ILO has extended its field of activities by the establishment of eight tripartite industrial committees to deal with problems of important world industries, by the holding of regional and special technical conferences, and by the expanded program of technical assistance to aid the development of backward countries in such fields as co-operatives, vocational training, productivity techniques and employment service organization.

The *International Labour Conference* is a world parliament for the consideration of labour and social problems. It meets annually and is attended by four delegates from each Member State (two representing the Government, one representing the employers and one representing the workers) accompanied by technical advisers. The Conference

formulates international standards concerning working and living conditions in the form of Conventions and Recommendations. A Convention, after adoption, must be considered by the competent authorities in each Member State with a view to possible ratification; however each Member State decides whether or not to ratify any Convention, and only by ratification does it assume the obligation to bring its legislation in that field up to the standard set by the Convention. A Recommendation is less formal: it contains general principles for the guidance of governments in drafting legislation or in issuing administrative orders and is not subject to ratification by the Member States.

The *International Labour Office* acts as the permanent secretariat of the ILO and as a world research and information centre and publishing house on all subjects concerned with industry and labour. In the operational field it assists Member States by furnishing experts on manpower training and technical assistance. The ILO maintains branch offices in all parts of the world, including the Canada Branch, 202 Queen Street, Ottawa.

The *Governing Body* of the ILO, by a constitutional amendment adopted in June 1953, consists of 40 members—20 government representatives, 10 employers' representatives and 10 workers' representatives. Of the government seats, each of the 10 Member States of chief industrial importance (of which Canada is one) holds a permanent place, and the other 10 government representatives are elected triennially by the Conference. The worker and employer members are elected by their groups every three years at the Conference. The Governing Body meets three times a year and has general supervision over the work of the International Labour Office and the various Conferences and Committees, in addition to framing the budget and approving the agendas of the various Conferences. Canada's representative on the Governing Body is G. V. Haythorne, Assistant Deputy Minister of Labour for Canada.

There have been 40 Sessions of the International Labour Conference, at which 107 Conventions and 104 Recommendations have been adopted, covering a wide range of subjects such as industrial relations, freedom of association, hours of work, weekly rest, holidays with pay, minimum wages, night work of women and young persons, industrial health and safety, workmen's compensation, conditions of work for seamen and dockers, unemployment and health insurance, protection of migrant workers, equal remuneration, forced labour, and many other aspects of industrial and social problems. By June 1957 the ratifications of Conventions by Member States totalled about 1,720.

Canada has ratified 18 ILO Conventions, of which 12 concern maritime and dock labour. In Canada the provincial legislatures are the competent legislative authorities with jurisdiction over the subject covered by most of the ILO Conventions and Recommendations. The Department of Labour, as the official liaison agency with the International Labour Organization, is responsible for forwarding to the ILO Office annual reports on ratified Conventions as well as periodical reports on many other industrial and social matters. Canada is represented at most of the ILO annual and special meetings and accounts of the discussions and the decisions are regularly published in the *Labour Gazette*. The Department also keeps the provincial governments and the major employer and worker organizations informed of ILO activities.

CHAPTER XIX.—TRANSPORTATION

CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

The physiographic and population characteristics of Canada present unusual difficulties from the standpoint of transportation. The country extends 4,000 miles from east to west and its main topographic barriers run in a north-south direction, so that sections of the country are cut off from one another by such water barriers as Cabot Strait and the Strait of Belle Isle separating the Island of Newfoundland from the mainland; by areas of rough, rocky forest terrain such as the region lying between New Brunswick and Quebec, and the areas north of Lakes Huron and Superior dividing the industrial region of Ontario and Quebec from the agricultural areas of the Prairie Provinces; and by the mountain barriers between the prairies and the Pacific Coast. Unevenly distributed along a narrow southern strip of Canada's vast area is its relatively small population of 16,589,000 (estimate of June 1, 1957). To such a country, with a population so dispersed and producing for export as well as for consumption in distant parts of the country itself, efficient and economical transportation facilities are necessities of existence.

The extent of government control over the agencies of transportation is covered in Part I of this Chapter; Parts II to VI deal with the various types of transport facility.

PART I.—GOVERNMENT CONTROL OVER AGENCIES OF TRANSPORTATION

The Federal Government's control and regulation of transportation reflects to a considerable extent conditions that date back to the period when the railways possessed a virtual monopoly of transportation within the country. Although federal regulation was a direct outcome of such particular matters as the prevention of unjust discrimination in rates and charges resulting from monopoly conditions in the industry and the safety of

transportation facilities and operating practices, yet the railways have been so involved in the public interest that their regulation has been extended to become the most comprehensive of any industry in Canada.

In the meantime, conditions in the transportation industry have been drastically altered by the increasing competition arising from the advance of highway transportation. Unlike the competition that existed between railways in early stages of their development, today's competition shows little indication of starting a trend toward consolidation and a return to semi-monopolistic conditions within the industry. Because so many shippers now provide their own transportation, it is evident that a large part of the present competition between common carriers has become a permanent feature of the transportation industry.

It is not surprising that regulations, which under monopoly conditions were not onerous to the railways or were purely nominal in their effect, are now alleged to have become increasingly restrictive and hampering under highly competitive conditions. Regulatory authorities are therefore faced with the problem of piecemeal revision of their regulations—retaining those where railway monopoly or near-monopoly conditions still make them necessary in the public interest, and relaxing those where competition can be relied on to protect the public in order to enable the railways to meet this competition more effectively. The emphasis has shifted from the regulation of monopoly to maintaining a balance between the several competing modes of transport. Indicative of this trend is the amendment to the Transport Act passed in 1955, which extends the freedom of the railways to make contract rates with shippers known as agreed charges.

On Nov. 2, 1936, the amalgamation of the Department of Railways and Canals and the Department of Marine, together with the Civil Aviation Branch of the Department of National Defence to form the new Department of Transport brought under one control railways, canals, harbours, marine and shipping, civil aviation, radio and meteorology.

Road and highway development is mainly under provincial or municipal control or supervision. According to the Judgment of the Judicial Committee of the Privy Council dated Feb. 22, 1954, jurisdiction over interprovincial and international highway transport rests with the Federal Government. Federal and provincial representatives conferred in Ottawa in April 1954 on means of implementing that decision and on June 26, 1954, the Motor Vehicle Transport Act was passed by the Federal Parliament giving to all provinces, at their option, the authority to apply to interprovincial and international highway transport the same regulations respecting certificates of public convenience and necessity and rates as they apply to undertakings operating entirely within the province. This Act has since been proclaimed in seven provinces.

The Board of Transport Commissioners for Canada.—The Board of Transport Commissioners for Canada was created and initially named the Board of Railway Commissioners for Canada by the Railway Act 1903, and was given its present name by the Transport Act 1938. It was organized on Feb. 1, 1904, and succeeded to all the powers and duties of its predecessor, the Railway Committee of the Privy Council. It was also given additional powers and duties which have been greatly enlarged since that date. When organized, the membership of the Board consisted of a Chief Commissioner, Deputy Chief Commissioner and one Commissioner. In 1908 an Assistant Chief Commissioner and two other Commissioners were added. The Board is a statutory Court of Record, so constituted by the Railway Act and recognized as such by other courts, but it also has extensive regulative and administrative powers.

The great majority of applications and complaints to the Board are disposed of without hearing in open court, but public hearings are held in various places throughout Canada as the Board sees fit, particularly to suit the convenience of the parties and avoid expense to them. Evidence at public hearings is given under oath and interested parties appear personally or by counsel or representatives. The finding or determination of the Board upon any question of fact within its jurisdiction is binding and conclusive and no order or decision may be questioned or reviewed except on appeal to the Supreme Court of

Canada upon a question of law or a question of jurisdiction with leave of a Judge of that Court, or by the Governor in Council.* Two Commissioners are a quorum or 'panel' for the hearing of a case and it is not unusual for two panels to be sitting at the same time on different appeals.

The Board has jurisdiction under more than a score of Acts of Parliament, including jurisdiction under the Railway Act, Transport Act and Pipe Lines Act, over transportation by railway and by inland water; over communication by telephone and telegraph; and over the transmission of oil and natural gas by interprovincial or international pipelines.

Under the Railway Act its jurisdiction is, stated generally, in respect of construction, maintenance and operation of railways that are subject to the legislative authority of the Parliament of Canada, including matters of engineering, location of lines, crossings and crossing protection, safety of train operation, operating rules, investigation of accidents, accommodation for traffic and facilities for service, abandonment of operation, freight and passenger rates, and uniformity of railway accounting. The Board also has certain jurisdiction over telephones and telegraphs, including regulation of the telephone tolls of The Bell Telephone Company of Canada, the British Columbia Telephone Company, the Quebec and Gaspé Telephone Company and the Yellowknife Telephone Company, and over express traffic and tolls for the use of international bridges and tunnels.

The Board has jurisdiction to inquire into, hear and determine any application by any party interested who complains that any company or person has violated or failed to comply with the Railway Act or a Special Act or any Order made thereunder, or who requests the Board to make any order or give any direction, leave, sanction or approval that, by law, it is authorized to make or give or with respect to any matter, act or thing that by the Railway Act or Special Act is prohibited, sanctioned or required to be done. It has power to make orders and regulations generally for carrying the Railway Act into effect and for exercising jurisdiction conferred on the Board by any other Act.

Regulation of railway freight and passenger rates is one of the Board's principal tasks. Except for certain statutory rates, it has power "to fix, determine and enforce just and reasonable rates, and to change and alter rates as changing conditions or cost of transportation may from time to time require"; it may disallow any tariff that it considers to be unjust or unreasonable or contrary to any provision of the Railway Act; it may prescribe other tolls in lieu of the tolls disallowed, or require the railway company to substitute a tariff satisfactory to the Board. Since the end of World War II there has been a succession of applications for authority to make general freight rate increases and general telephone rate increases.

A review of transport regulation was undertaken by the Royal Commission on Transportation, under the chairmanship of the Hon. W. F. A. Turgeon, which held extensive hearings in 1949-50 and issued its Report in 1951. (*See* 1952-53 Year Book, p. 741.) Certain of its recommendations, including the following, were incorporated into the Railway Act by amendments made in 1951: the equalization of freight rates; the requirement that, when transcontinental competitive freight rates are published, the corresponding rates to intermediate points shall not be more than one-third greater than the former; the payment by the Government of Canada of the cost of maintaining the so-called 'bridge' lines of the transcontinental railway systems in Ontario (between Sudbury, Capreol and Cochrane, and between Port Arthur and Armstrong) up to the amount of \$7,000,000 annually, the amounts so received by the railways to be applied to reductions in freight rates between Eastern and Western Canada over the trackage referred to; and the requirement of a uniform classification of accounts to be prescribed by the Board of Transport Commissioners for the Canadian Pacific Railway and the Canadian National Railways. Pursuant to the amendments, a uniform scale of mileage class rates has been prescribed by the Board and equalization of commodity rates is being proceeded with. The Board has also prescribed a uniform classification and system of accounts for railways and has approved a new freight classification.

* The Board's judgments are reported in *Canadian Railway Cases* and *Canadian Railway and Transport Cases*, and its judgments, orders, rulings and regulations are published fortnightly by the Queen's Printer, Ottawa, in what is known as *J.O.R. & R.*

Under the Transport Act the Board entertains applications for licences for ships to transport goods or passengers for hire or reward between places in Canada on the Great Lakes and the Mackenzie and Yukon Rivers, except goods in bulk on waters other than the Mackenzie River. Before granting a licence the Board must be satisfied that public convenience and necessity require such transport. It also has regulative powers over tolls for such transport.

'Agreed charges' between shippers and carriers, authorized by the Transport Act, were also reviewed by the Hon. W. F. A. Turgeon in 1955 and his recommendations were implemented in amendments to that Act in 1955. Under the amendments, an agreement for an agreed charge shall be executed in tariff form and a duplicate original shall be filed with the Board within seven days after the making of the agreement, and the agreed charge takes effect twenty days after the filing, without necessity of the Board's approval of the charge. The Board continues to have power to fix a charge for a shipper who is unjustly discriminated against by an agreed charge and it also has power to vary or cancel an agreed charge referred to it by the Minister of Transport or Governor in Council for investigation.

Leave of the Board is necessary, under the Pipe Lines Act, for construction of an interprovincial or international gas or oil pipeline. The Board has granted leave to construct such major pipelines as the Trans-Canada natural gas line, the Westcoast Transmission gas line, the Interprovincial oil line, the Trans Mountain oil line and the Trans-Northern oil products line. In considering applications of this kind the Board has regard, among other things, to public interest, financial responsibility of the applicant company and the economic feasibility of the project. It may make orders and regulations for the protection of property and safety in the operation of pipelines. It may also make orders and regulations with respect to all matters relating to traffic, tolls and tariffs of oil pipelines, but it does not have similar powers over gas pipelines. It may declare an oil pipeline company to be a common carrier and may prescribe a uniform system of accounts for pipeline companies.

The Board is required by the Railway Act to make an annual report to the Governor in Council through the Minister of Transport. Copies may be obtained from the Secretary.

The Air Transport Board.—The Air Transport Board was established in September 1944 by amendment to the Aeronautics Act. Subsequent amendments to the Act were made in 1945, 1950 and 1952. The Board has three members including the Chairman, and the staff comprises an Executive Director's Branch including Legal, International Relations, and Traffic Divisions, and a Secretary's Branch including Administrative, Licensing, and Inspection and Enforcement Divisions.

The Board is responsible for the economic regulation of commercial air services in Canada and is also required to advise the Minister of Transport in the exercise of his duties and powers in all matters relating to civil aviation. The regulatory function relates to Canadian air services within Canada and abroad and to foreign air services operating into Canada. It involves the licensing of all such services and the subsequent regulation of the licensees in respect of their economic operation and the provision of service to the public. As provided by the Act, the Board issues Regulations, approved by the Governor in Council, dealing with the classification of air carriers and commercial air services, applications for licences to operate commercial air services, accounts, records and reports, ownership, transfers, consolidations, mergers and leases of commercial air services, traffic tolls and tariffs, and other related matters. Detailed regulatory instructions are issued by the Board in the form of General Orders, published in the *Canada Gazette*, relating to all air services or groups of air services; Board Orders relating to individual air services; and Rules and Circulars for general guidance and information.

Financial and operating statistics are collected under authority of the Board's Regulations by the Economics Division of the Department of Transport.

The Board is currently devoting special attention to the publication of a uniform charter tariff and to the formulation of basic principles for the guidance of operators in the establishment of their rates and fares. Helicopter operations are under constant review by an economic and technical committee set up for the purpose.

In the field of international aviation, the Board continues to take an active part in the work of the International Civil Aviation Organization, a member of its staff being the representative of Canada on the Council.

Canadian Maritime Commission.—By authority of an Act of Parliament (R.S.C. 1952, c. 38) passed in 1947, the Canadian Maritime Commission was constituted for the purpose of examining into, keeping records of, and advising the Minister of Transport on matters pertaining to Canadian shipping and shipbuilding services. In addition to these duties, the Act empowers the Commission to:—

- (1) exercise and perform on behalf of the Minister such powers, duties and functions of the Minister under the Canada Shipping Act 1934, as the Minister may require;
- (2) administer, in accordance with regulations of the Governor in Council, any steamship subventions voted by Parliament; and
- (3) exercise or perform any other powers, duties or functions conferred on or required to be performed by the Commission by or pursuant to any other Act or order of the Governor in Council.

PART II.—RAIL TRANSPORT*

The treatment of rail transport in this Chapter is divided into three Sections dealing, respectively, with railways, express companies and urban transit systems.

Section 1.—Railways

Since Confederation the railways of Canada have been the principal utility for the movement of passengers and freight throughout, and beyond, the nation. The two great national systems, supplemented by a few regional independent railways, are the only carriers able to transport large volumes at low cost in all weather by continuous passage over Canadian transcontinental routes. Though competition by trucking firms is rapidly increasing, the railways still retain their primary position in the transport field.

The two national railway companies control a wide variety of Canadian and international transport and communication services. The government-owned Canadian National Railway System is the country's largest public utility and operates the greatest length of trackage in Canada. In addition, it operates a fleet of coastal and ocean-going steamships, a national telegraph system connecting the principal points of Canada with other parts of the world, an extensive express service in Canada and abroad, a chain of large hotels and resorts, and a scheduled air service connecting all major cities across the country and Canadian with North American and European points. Its chief competitor, the Canadian Pacific Railway, is a joint-stock corporation operating an extensive transcontinental railway supported by a national telegraph system with connections throughout the world, a large fleet of inland, coastal and ocean-going vessels, a chain of year-round and resort hotels, a domestic north-south airline which is one of the world's great air-freight carriers, a transpacific airline service to the Orient and the Antipodes, air services to Mexico, Peru, Chile and Argentina, a transpolar air route connecting Vancouver and Amsterdam, and a transatlantic service to Lisbon. A world-wide express service and a domestic truck and bus network are included in the Company's operations.

The statistics of Subsections 1 to 3 of this Section cover the combined railway facilities of all companies operating in Canada. Details relating to the Canadian National Railway System are dealt with separately in Subsection 4. A special article covering the consolidation and organization of the CNR appears in the 1955 Year Book, pp. 840-847.

* Revised in the Public Finance and Transportation Division, Dominion Bureau of Statistics; more detailed information is given in the annual reports of the Division. Certain of the financial statistics were compiled in co-operation with the Department of Transport.

Subsection 1.—Milage and Equipment

Construction was begun in 1835 on the first railway in Canada—the short link of 14.5 miles between Laprairie and St. Johns, Que.—but only 66 miles were in operation by 1850. The first great period of construction was in the 1850's when the Grand Trunk and the Great Western Railways were built as well as numerous smaller lines. The building of the Intercolonial and the Canadian Pacific Railways contributed to another period of rapid expansion in the 1870's and 1880's. In the last period of extensive railway building (1900-1917), the Grand Trunk Pacific, National Transcontinental and Canadian Northern Railways were constructed.

Only a gradual increase has taken place in the milage of single track line since the 1920's but recently the construction of several large industrial projects in outlying districts has sparked a new phase of railway building. Entirely new districts have been opened up by the construction of the 43-mile Terrace-Kitimat line in British Columbia, the 144-mile Sherridon-Lynn Lake line in Manitoba and the 360-mile Quebec, North Shore and Labrador Railway. A new 80-mile line links Quesnel and Prince George in British Columbia. A 16-mile line connecting the mining community of Nephton with Havelock in eastern Ontario provides easy access to a non-metallic mineral producing area. A new line from Struthers to Geco and one from Hillsport to Manitouwadge serve this new mining district of northwestern Ontario, and a 161-mile line has been constructed in the Quebec mining area from Beattyville to Chibougamau and St. Félicien. About 29 miles of new track have been completed in Saskatchewan and a 40-mile diversion of the CNR main line between Cornwall and Cardinal in the St. Lawrence Seaway area of Ontario was completed in 1956. In New Brunswick a new 22-mile branch line has been built for the transport of mineral ores. While these new lines have added considerably to the single track milage placed in operation in the past few years, other lines have been abandoned because they were unprofitable so that the new milage is not altogether reflected in the totals.

1.—Railway Track Milage Operated 1900-56

NOTE—Figures of total milage of single track operated for 1835-1909 are given in the 1941 Year Book, p. 546; for 1911-14 in the 1954 edition, p. 786; for 1916-24 in the 1955 edition, p. 830; and for 1925-49 in the 1956 edition, p. 792.

| SINGLE TRACK MILEAGE | | TRACK MILEAGE BY PROVINCE | | | | |
|-------------------------|--------------------------|----------------------------|---------------|---------------|---------------|---------------|
| Year | Miles in Operation | Province and Type of Track | 1953 | 1954 | 1955 | 1956 |
| | No. | | No. | No. | No. | No. |
| 1900..... | 17,657 | Single— | | | | |
| 1905..... | 20,487 | Newfoundland..... | 705 | 705 | 910 | 934 |
| 1910..... | 24,731 | Prince Edward Island..... | 285 | 285 | 285 | 285 |
| 1915..... | 34,882 | Nova Scotia..... | 1,396 | 1,392 | 1,401 | 1,391 |
| 1920..... | 38,805 | New Brunswick..... | 1,834 | 1,834 | 1,800 | 1,799 |
| | | Quebec..... | 4,829 | 4,831 | 4,936 | 4,940 |
| 1925..... | 40,350 | Ontario..... | 10,386 | 10,378 | 10,375 | 10,516 |
| 1930..... | 42,047 | Manitoba..... | 4,979 | 4,979 | 4,979 | 4,974 |
| 1935..... | 42,916 | Saskatchewan..... | 8,733 | 8,721 | 8,721 | 8,721 |
| 1940..... | 42,565 | Alberta..... | 5,660 | 5,651 | 5,659 | 5,680 |
| 1945..... | 42,352 | British Columbia..... | 3,959 | 3,959 | 3,981 | 4,015 |
| | | Yukon..... | 58 | 58 | 58 | 58 |
| | | In United States..... | 339 | 339 | 339 | 339 |
| 1950 ¹ | 42,979 | | | | | |
| 1951..... | 42,956 | Totals, Single..... | 43,163 | 43,132 | 43,444 | 43,652 |
| 1952..... | 42,953 | Second..... | 2,485 | 2,485 | 2,486 | 2,476 |
| 1953..... | 43,163 | Industrial..... | 2,178 | 2,181 | 2,243 | 2,384 |
| 1954..... | 43,132 | Yard and sidings..... | 10,869 | 10,962 | 11,142 | 11,318 |
| 1955..... | 43,444 | | | | | |
| 1956..... | 43,652 | Grand Totals..... | 58,695 | 58,760 | 59,315 | 59,830 |

¹ Newfoundland included from 1950.

Rolling-Stock.—The figures in Table 2 may be supplemented by the statement that between 1949 and 1955 the average capacity of box cars increased from 43.5 tons to 45.8 tons and of gondola cars from 61.5 tons to 64.4 tons, flat cars from 42.9 tons to 45.6 tons, hopper cars from 58.7 tons to 64.6 tons and of all freight cars from 45.3 tons to 48.6 tons. The average tractive power of locomotives advanced during the same period from 41,923 lb. to 42,701 lb. The changeover to diesel operation is indicated by the decrease in steam locomotives and the increase in oil-burning and diesel locomotives in operation.

2.—Railway Rolling-Stock in Operation as at Dec. 31, 1949-55

| Type | 1949 | 1951 | 1953 | 1954 | 1955 |
|----------------------------------|----------------|----------------|----------------|----------------|--------------------------|
| | No. | No. | No. | No. | No. |
| Locomotives | 4,627 | 4,715 | 4,818 | 4,771 | 4,714¹ |
| Steam— | | | | | |
| Coal burning..... | 4,351 | 3,553 | 3,162 | 2,871 | 2,521 |
| Oil burning..... | | 555 | 667 | 715 | 704 |
| Diesel electric..... | 246 | 574 | 956 | 1,152 | 1,455 |
| Electric..... | 30 | 33 | 33 | 33 | 33 |
| Passenger Cars | 6,224 | 6,366 | 6,456 | 6,648 | 6,574 |
| First class..... | 1,996 | 177 | 2,064 | 2,133 | 2,058 |
| Second class..... | 177 | 339 | 331 | 323 | 325 |
| Combination..... | 337 | 315 | 291 | 254 | 226 |
| Immigrant..... | 347 | 196 | 180 | 196 | 201 |
| Dining..... | 185 | 153 | 161 | 174 | 172 |
| Parlour..... | 175 | 803 | 801 | 956 | 969 |
| Sleeping..... | 775 | 2,201 | 2,430 | 2,418 | 2,433 |
| Baggage, express and postal..... | 1,766 | 49 | 59 | 63 | 75 |
| Motor..... | 54 | 141 | 139 | 131 | 115 |
| Other..... | 402 | | | | |
| Freight Cars | 177,614 | 180,725 | 187,980 | 189,351 | 185,956 |
| Automobile..... | 6,075 | 6,396 | 7,560 | 7,439 | 7,406 |
| Ballast..... | 1,772 | 1,803 | 1,940 | 2,245 | 2,378 |
| Box..... | 118,576 | 121,318 | 119,753 | 118,770 | 114,814 |
| Flat..... | 10,951 | 11,062 | 11,690 | 11,782 | 12,037 |
| Gondola..... | 14,135 | 14,098 | 17,603 | 18,469 | 18,592 |
| Hopper..... | 9,100 | 8,897 | 11,598 | 12,129 | 12,247 |
| Ore..... | 1,902 | 1,902 | 1,969 | 2,555 | 2,559 |
| Refrigerator..... | 7,921 | 8,231 | 9,438 | 9,583 | 9,735 |
| Stock..... | 6,648 | 6,509 | 6,057 | 5,972 | 5,776 |
| Tank..... | 454 | 460 | 328 | 363 | 378 |
| Other..... | 80 | 49 | 44 | 44 | 34 |

¹ Includes one gasoline locomotive.

Subsection 2.—Finances

The tables in this Subsection give information on capital liability and capital investment, earnings, operating expenses, employees and their earnings and government aid to all railways.* Financial statistics of government-owned railways are given separately and in detail in Subsection 4.

Capital Liability and Investment.—The capital liability of the Canadian railways for the years 1936 to 1955 is shown in Table 3. The increase of \$132,980,501 in 1955 over 1954 compares with an increase in investment in road and equipment of \$227,135,132 as shown in Table 4.

* Statistics for individual railways are given in DBS annual report, *Railway Transport*, published in five parts.

3.—Capital Liability of Railways 1936-55

NOTE.—Figures for 1876 to 1925 are given in the 1927-28 Year Book, p. 649, and those for 1926-35 in the 1947 edition, p. 662.

(Exclusive of Canadian railway capital owned by Canadian railways)

| Year | Stocks | Funded Debt | Total | Year | Stocks | Funded Debt | Total |
|-------------------------|---------------|---------------|---------------|-------------------------|---------------|---------------|----------------------------|
| | \$ | \$ | \$ | | \$ | \$ | \$ |
| 1936..... | 1,425,193,791 | 3,062,411,720 | 4,487,605,511 | 1946..... | 1,624,753,709 | 1,665,844,138 | 3,290,597,847 |
| 1937 ¹ | 1,839,619,361 | 1,534,450,789 | 3,374,070,150 | 1947..... | 1,623,607,219 | 1,685,010,672 | 3,308,617,891 |
| 1938..... | 1,836,882,650 | 1,568,269,672 | 3,405,152,322 | 1948..... | 1,578,057,474 | 1,672,282,030 | 3,250,339,504 |
| 1939..... | 1,834,329,209 | 1,533,373,521 | 3,367,702,730 | 1949..... | 1,576,734,292 | 1,692,898,968 | 3,269,633,260 ² |
| 1940..... | 1,762,473,489 | 1,617,561,683 | 3,380,035,172 | 1950..... | 1,649,462,088 | 1,826,346,222 | 3,475,808,310 ² |
| 1941..... | 1,697,545,699 | 1,699,942,865 | 3,397,488,564 | 1951..... | 1,646,205,772 | 1,925,488,160 | 3,571,693,932 ² |
| 1942..... | 1,578,254,765 | 1,793,579,270 | 3,371,834,035 | 1952 ¹ | 2,406,309,060 | 1,308,899,612 | 3,715,208,672 ² |
| 1943..... | 1,614,936,131 | 1,741,664,036 | 3,356,600,167 | 1953..... | 2,422,692,856 | 1,439,063,402 | 3,861,756,258 ² |
| 1944..... | 1,636,064,822 | 1,707,801,676 | 3,343,866,498 | 1954..... | 2,499,778,848 | 1,475,815,267 | 3,975,594,115 ² |
| 1945..... | 1,631,973,055 | 1,701,786,899 | 3,333,759,954 | 1955..... | 2,543,465,586 | 1,565,109,030 | 4,108,574,616 ² |

¹ Affected by readjustment in the capital structure of the CNR (see p. 824).
\$40,000,000 railway debt in Newfoundland assumed in 1949.

² Exclusive of approximately

4.—Capital Invested in Railway Road and Equipment 1951-55

| Investment | 1951 | 1952 | 1953 | 1954 | 1955 ¹ |
|--|----------------------|----------------------|----------------------|----------------------|----------------------|
| | \$ | \$ | \$ | \$ | \$ |
| New Lines— | | | | | |
| Road..... | 6,301,717 | 11,431,609 | 8,352,231 | 6,187,944 | 15,462,166 |
| Equipment..... | 1,552,117 | 19,210 | 35,287 | 45,952 | 148,572 |
| General..... | 53,901 | 52,510 | Cr. 189,856 | 45,654 | 221,082 |
| Totals..... | 7,907,735 | 11,503,329 | 8,197,662 | 6,279,550 | 15,831,820 |
| Additions and Betterments— | | | | | |
| Road..... | 42,260,214 | 42,243,299 | 40,667,130 | 32,450,253 | 25,572,002 |
| Equipment..... | 107,478,591 | 128,696,815 | 156,012,197 | 192,303,720 | 77,654,103 |
| General..... | Cr. 70,318 | 70,585 | 102,847 | Cr. 9,621,920 | Cr. 537,488 |
| Undistributed..... | Cr. 2,381 | Cr. 2,539 | Cr. 134,414 | Cr. 19,676 | Cr. 15,670 |
| Totals..... | 149,666,106 | 171,008,160 | 196,647,760 | 215,112,377 | 102,672,947 |
| Undistributed ² | Cr. 1,318,920 | Cr. 37,797 | 290,407 | 182,603 | Cr. 12,600,325 |
| Total Investment as at Dec. 31... | 3,940,959,867 | 4,123,433,559 | 4,328,569,388 | 4,550,143,918 | 4,777,279,050 |

¹ Includes \$121,230,690 Quebec North Shore and Labrador Railway investment in road and property not previously reported.

² Details given in DBS report, *Railway Transport*.

Revenues and Expenses.—The operating ratio, or ratio of expenditure to revenue, of Canadian railways in 1943 reversed a declining trend and began to rise, mainly because of increasing costs of materials and labour. From 1946 to 1955 operating revenues increased 66.8 p.c. and operating expenses 68.2 p.c. As a result, the net operating revenues per mile of line increased by 49.8 p.c.

5.—Operating Revenues and Expenses of Railways 1946-55

NOTE.—Operating revenues and expenses for 1875 to 1914 are given in the 1916-17 Year Book, p. 434; those for 1915-25 in the 1941 Year Book, p. 550; for 1926-39 in the 1942 Year Book, p. 585; and for 1940-45 in the 1951 Year Book, p. 722. Newfoundland included from Apr. 1, 1949.

| Year | Total Operating Revenues | Total Operating Expenses | Ratio of Operating Expenses to Operating Revenues | Per Mile of Line | | | Freight Train Revenue per Freight Train Mile | Passenger Train Revenue per Passenger Train Mile |
|------------|--------------------------------|--------------------------------|---|-----------------------|-----------------------|------------------------------|--|--|
| | | | | Operating Revenues | Operating Expenses | Net Operating Revenues | | |
| | \$ | \$ | p.c. | \$ | \$ | \$ | \$ | \$ |
| 1946 | 718,501,764 | 623,529,472 | 86.79 | 16,967 | 14,724 | 2,243 | 6.83 | 3.21 |
| 1947 | 785,177,920 | 690,821,047 | 87.98 | 18,556 | 16,326 | 2,230 | 7.38 | 3.01 |
| 1948 | 875,832,290 | 808,126,455 | 92.27 | 20,702 | 19,102 | 1,600 | 8.38 | 2.92 |
| 1949 | 894,397,264 | 831,456,446 | 92.96 | 20,866 | 19,398 | 1,468 | 8.66 | 3.10 |
| 1950 | 958,985,751 | 833,726,562 | 86.94 | 22,311 | 19,397 | 2,914 | 9.45 | 3.19 |
| 1951 | 1,088,583,789 | 977,577,062 | 89.80 | 25,348 | 22,763 | 2,585 | 10.05 | 3.36 |
| 1952 | 1,172,158,665 | 1,057,186,304 | 90.19 | 27,272 | 24,597 | 2,675 | 10.56 | 3.50 |
| 1953 | 1,205,935,414 | 1,100,393,836 | 91.25 | 28,020 | 25,567 | 2,453 | 11.43 | 3.53 |
| 1954 | 1,095,440,918 | 1,019,534,989 | 93.07 | 25,402 | 23,642 | 1,760 | 11.58 | 3.44 |
| 1955 | 1,198,351,601 | 1,048,564,681 | 87.50 | 26,876 | 23,517 | 3,359 | 12.21 | 3.60 |

6.—Distribution of Railway Operating Expenses 1953-55

| Item | 1953 | | 1954 | | 1955 | |
|---------------------------------|----------------------|--------------|----------------------|--------------|----------------------|--------------|
| | \$ | p.c. | \$ | p.c. | \$ | p.c. |
| Way and structures | 227,049,996 | 20.6 | 206,712,991 | 20.3 | 212,397,087 | 20.3 |
| Equipment | 254,035,999 | 23.1 | 227,234,735 | 22.3 | 227,866,346 | 21.7 |
| Traffic | 22,839,459 | 2.1 | 22,846,030 | 2.2 | 23,821,263 | 2.3 |
| Transportation | 516,086,712 | 46.9 | 477,118,665 | 46.8 | 485,427,650 | 46.3 |
| General and miscellaneous | 80,381,670 | 7.3 | 85,622,568 | 8.4 | 99,052,335 | 9.4 |
| Totals | 1,100,393,836 | 100.0 | 1,019,534,989 | 100.0 | 1,048,564,681 | 100.0 |

Employment and Salaries and Wages.—In the ten latest years for which figures are available (1946-55) the number of railway employees increased by 8.4 p.c. and their salaries and wages by 70.1 p.c. Maintenance-of-equipment employees, on hourly rates, worked about 10 p.c. fewer hours and were paid 77 p.c. more wages per hour; average

hours worked by transportation employees were 15 p.c. fewer and their pay was about 77 p.c. higher. These figures reflect salary and wage increases received during this period and the conversion to the five-day week in 1951.

7.—Railway Employees and their Earnings 1946-55

NOTE.—Figures include employees and wages for 'outside' operations amounting to from 3 to 6 p.c. of total employees and from 2 to 5 p.c. of total salaries and wages. Figures for 1912-39 are given in the 1941 Year Book, p. 551, and for 1940-45 in the 1951 edition, p. 723. Newfoundland included from Apr. 1, 1949.

| Year | Employees | Total Salaries and Wages | Average Salaries and Wages | Ratio of Total Payroll (charged to operating expenses) to— | |
|-----------|-----------|--------------------------|----------------------------|--|--------------------|
| | | | | Operating Revenues | Operating Expenses |
| | No. | \$ | \$ | p.c. | p.c. |
| 1946..... | 180,383 | 396,856,901 | 2,200 | 50.2 | 57.8 |
| 1947..... | 184,415 | 429,843,142 | 2,331 | 49.9 | 56.7 |
| 1948..... | 189,963 | 512,054,795 | 2,696 | 53.0 | 57.5 |
| 1949..... | 192,366 | 523,453,375 | 2,721 | 52.9 | 56.9 |
| 1950..... | 190,385 | 523,008,515 | 2,747 | 49.8 | 57.2 |
| 1951..... | 204,025 | 624,682,754 | 3,062 | 52.0 | 58.0 |
| 1952..... | 214,143 | 669,457,962 | 3,126 | 52.1 | 57.7 |
| 1953..... | 211,951 | 724,077,594 | 3,416 | 53.4 | 58.6 |
| 1954..... | 196,307 | 661,829,774 | 3,371 | 54.3 | 58.3 |
| 1955..... | 195,459 | 674,875,767 | 3,453 | 50.2 | 57.4 |

Government Aid to Railways.—In order that the private railways of Canada might be constructed in advance of settlement as colonization roads or through sparsely settled districts where little traffic was available, it was necessary for federal and provincial governments and even for municipalities to extend some form of assistance. The form of aid was usually a bonus of a fixed amount for each mile of railway constructed and, in the early days, grants of land were also made other than for right-of-way. As the country developed, objections to the land-grant method became increasingly apparent and aid was given more frequently in the form of a cash subsidy for each mile of line, a loan or a subscription to the shares of the railway. Guarantees of debenture issues were given in a later period and, since the formation of the Canadian National Railways, all debenture issues of that System, except those for rolling-stock, have been guaranteed by the Federal Government. No new land grants or cash subsidies have been advanced by either the federal or provincial governments since 1939.

During the era of railway expansion before 1918, provincial governments guaranteed the bonds of some railway lines that afterwards were incorporated in the Canadian National Railway System. These bonds as they mature or are called are paid off by the Canadian National Railways, in large measure, through funds raised by the issue of new bonds with Federal Government guarantee. Bonds guaranteed by the Governments of Ontario, Manitoba, Saskatchewan, Alberta and British Columbia have been eliminated in this manner in recent years. The only provincially guaranteed railway bonds outstanding at Dec. 31, 1955, were those of the Government of New Brunswick to the amount of \$465,000. Federal Government guarantees at the same date amounted to \$861,752,955; this amount does not include \$117,944 perpetual debenture stock and guaranteed stock of the former Grand Trunk Railway, now part of the Canadian National Railway System, on which interest and dividends are guaranteed by the Federal Government.

Subsection 3.—Traffic

Table 8 shows passenger and freight statistics for all railways for the years 1946-55. A separate analysis of the operations and traffic of the Canadian National Railways is given at pp. 824-826.

8.—Statistics of Passenger and Freight Services and Revenue Receipts 1946-55

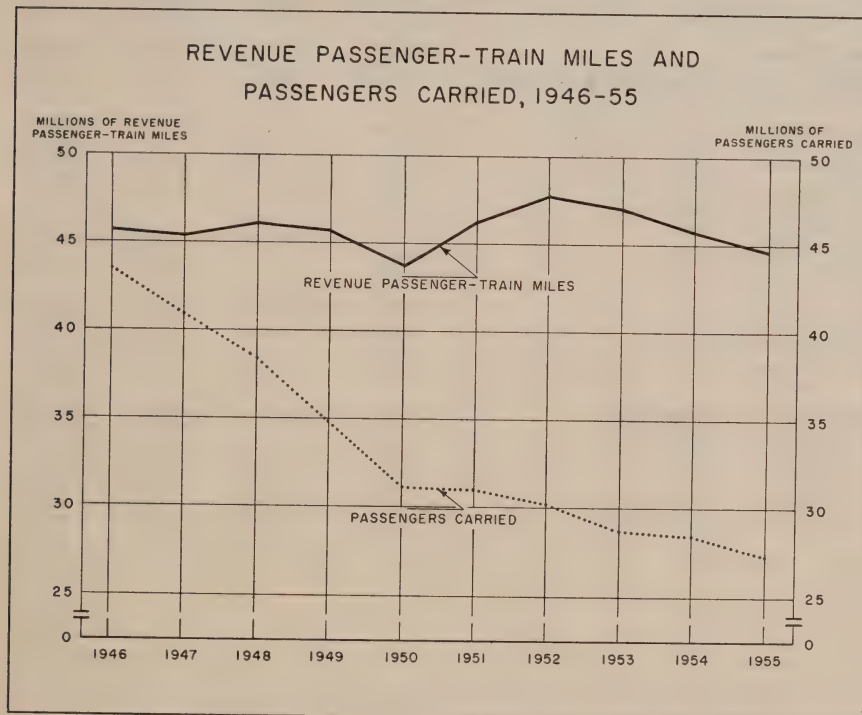
NOTE.—Figures for 1910-45 are given in the corresponding table of previous Year Books.

| Year | PASSENGER SERVICE | | | | |
|-------------------------|--|--|---------------------------------|------------------------------|--|
| | Revenue Passenger-Train Miles ¹ | Passenger-Train Car Miles ¹ | Passengers Carried ² | Passenger Miles | Passenger Miles per Mile of Line |
| | No. | No. | No. | No. | No. |
| 1946..... | 45,700,856 | 415,890,589 | 43,405,177 | 4,648,558,000 | 109,773 |
| 1947..... | 45,367,725 | 398,646,636 | 40,941,387 | 3,732,777,000 | 88,218 |
| 1948..... | 46,101,568 | 410,689,409 | 38,279,981 | 3,477,273,000 | 82,193 |
| 1949..... | 45,680,009 | 407,421,229 | 34,883,803 | 3,193,174,337 | 74,497 |
| 1950 ³ | 43,744,164 | 392,800,555 | 31,139,092 | 2,816,154,232 | 65,519 |
| 1951..... | 46,200,947 | 415,178,734 | 30,995,604 | 3,110,240,504 | 72,424 |
| 1952..... | 47,663,617 | 431,234,562 | 30,167,145 | 3,151,261,385 | 73,319 |
| 1953..... | 46,977,271 | 430,726,717 | 28,736,159 | 2,985,943,809 | 69,378 |
| 1954..... | 45,745,089 | 416,969,275 | 28,396,528 | 2,863,036,611 | 66,391 |
| 1955..... | 44,556,022 | 417,729,975 | 27,229,962 | 2,891,685,018 | 64,853 |
| | Average Receipts per Passenger Mile | Average Receipts per Passenger | Average Passenger Journey | Average Passengers per Train | Passenger-Train Revenue per Passenger-Train Mile |
| | cts. | \$ | miles | No. | \$ |
| | | | | | |
| 1946..... | 2.15 | 2.30 | 107 | 102 | 3.21 |
| 1947..... | 2.35 | 2.14 | 91 | 82 | 3.01 |
| 1948..... | 2.40 | 2.18 | 91 | 75 | 2.92 |
| 1949..... | 2.66 ³ | 2.44 ³ | 92 ³ | 69 | 3.05 |
| 1950 ³ | 2.79 | 2.52 | 90 | 64 | 3.19 |
| 1951..... | 2.86 | 2.87 | 100 | 67 | 3.36 |
| 1952..... | 2.88 | 3.01 | 104 | 66 | 3.50 |
| 1953..... | 2.88 | 2.99 | 104 | 64 | 3.53 |
| 1954..... | 2.87 | 2.89 | 101 | 63 | 3.44 |
| 1955..... | 2.87 | 3.05 | 106 | 65 | 3.60 |
| | FREIGHT SERVICE | | | | |
| | Revenue Freight-Train Miles | Revenue Freight-Train Car Miles ⁴ | Freight Carried ⁵ | Freight Ton Miles | Freight Ton Miles per Mile of Line |
| | No. | No. | tons | ton-miles | ton-miles |
| 1946..... | 77,794,963 | 2,973,411,653 | 139,256,125 | 55,310,308,000 | 1,306,121 |
| 1947..... | 82,377,565 | 3,176,646,828 | 152,855,820 | 60,143,035,000 | 1,421,384 |
| 1948..... | 83,398,617 | 3,120,704,440 | 154,932,804 | 59,080,323,000 | 1,396,500 |
| 1949..... | 81,648,053 | 3,091,633,447 | 142,719,431 ³ | 56,338,230,000 ³ | 1,314,379 ³ |
| 1950 ³ | 81,397,148 | 3,093,946,961 | 144,218,319 | 55,537,900,000 | 1,292,120 |
| 1951..... | 87,181,640 | 3,384,341,192 | 161,260,521 | 64,300,418,000 | 1,497,274 |
| 1952..... | 89,217,123 | 3,551,802,171 | 162,175,381 | 68,430,417,000 | 1,592,146 |
| 1953..... | 84,997,904 | 3,448,530,542 | 156,249,259 | 65,267,016,000 | 1,516,462 |
| 1954..... | 75,334,248 | 3,088,504,846 | 143,194,840 | 57,547,300,439 | 1,333,216 |
| 1955..... | 79,072,523 | 3,414,942,330 | 167,862,156 | 66,176,128,925 | 1,483,273 |

For footnotes, see end of table, p. 821.

8.—Statistics of Passenger and Freight Services and Revenue Receipts 1946-55—concluded

| Year | FREIGHT SERVICE—concluded | | | | | |
|-------------------------|-----------------------------------|-------------------------|--------------------------------|----------------------------------|----------------------------------|--------------------------------|
| | Freight Receipts per Ton per Mile | Receipts per Ton Hauled | Average Length of Freight Haul | Average Train Load, Revenue Tons | Average Load per Loaded Car Mile | Revenue per Freight-Train Mile |
| | cts. | \$ | miles | tons | tons | \$ |
| 1946..... | 0.961 | 3.82 | 397 | 711 | 29.95 | 6.83 |
| 1947..... | 1.009 | 3.98 | 393 | 730 | 30.23 | 7.38 |
| 1948..... | 1.183 | 4.51 | 381 | 708 | 30.16 | 8.38 |
| 1949..... | 1.256 ³ | 4.96 ³ | 395 ³ | 689 | 29.65 | 8.62 |
| 1950 ³ | 1.385 | 5.33 | 385 | 682 | 28.91 | 9.45 |
| 1951..... | 1.362 | 5.43 | 399 | 738 | 30.61 | 10.05 |
| 1952..... | 1.377 | 5.81 | 422 | 767 | 31.68 | 10.56 |
| 1953..... | 1.489 | 6.22 | 418 | 768 | 31.16 | 11.43 |
| 1954..... | 1.516 | 6.09 | 402 | 764 | 30.34 | 11.58 |
| 1955..... | 1.460 | 5.75 | 394 | 837 | 31.30 | 12.21 |

¹ Includes express, baggage, mail and other cars.² Duplications included.³ Newfoundland included from 1950.⁴ Includes caboose miles but excludes miles made in passenger and non-revenue trains.⁵ Duplications eliminated; see Table 9 for details of freight carried.

The amount of revenue freight carried on the railways in 1955 was 17 p.c. higher than that carried in 1954. Of the 167,862,156 tons moved in 1955, mine products accounted for 41.6 p.c., manufactures and miscellaneous products 30.4 p.c., agricultural products 16.2 p.c., forest products 10.6 p.c., and animals and animal products 1.2 p.c. As compared with 1954, mine products carried increased by 35.2 p.c., manufactures and miscellaneous 13.2 p.c., forest products 10.5 p.c., and animals and animal products 3.7 p.c. The agricultural products group was the only one showing a decrease, dropping 4.3 p.c. The largest increase among the individual commodities carried was shown by ores and concentrates.

9.—Commodities Hauled as Freight on Railways 1952-55

NOTE.—In this table duplications are eliminated, i.e., the same freight handled by two or more railways is counted only once. The statistics do not include the United States lines of the Canadian National Railways, but the link of the Canadian Pacific Railway line across Maine, U.S.A., is included, as are the Canadian sections of United States railways.

| Commodity | 1952 | 1953 | 1954 | 1955 |
|--|--------------------|--------------------|--------------------|--------------------|
| | tons | tons | tons | tons |
| Agricultural Products | 37,402,773 | 36,305,797 | 28,494,112 | 27,275,365 |
| Wheat..... | 19,026,645 | 18,463,859 | 11,501,780 | 11,421,085 |
| Oats..... | 3,219,709 | 3,188,551 | 2,477,983 | 1,544,263 |
| Other grain..... | 6,465,472 | 6,301,193 | 5,197,858 | 4,840,613 |
| Flour..... | 2,233,819 | 2,043,808 | 1,842,171 | 1,735,338 |
| Other mill products..... | 2,584,815 | 2,327,895 | 2,812,505 | 2,901,298 |
| Other agricultural products..... | 3,872,313 | 3,980,491 | 4,661,815 | 4,832,768 |
| Animal Products | 1,693,690 | 1,868,255 | 1,992,487 | 2,065,582 |
| Livestock..... | 679,624 | 670,040 | 652,161 | 636,894 |
| Meats and other edible packing-house products.... | 496,038 | 656,695 | 699,256 | 724,399 |
| Other animal products..... | 518,028 | 541,550 | 641,070 | 704,289 |
| Mine Products | 54,821,932 | 53,081,658 | 51,654,754 | 69,815,307 |
| Coal, anthracite..... | 3,879,154 | 2,911,118 | 2,787,944 | 2,722,466 |
| Coal, bituminous, subbituminous, lignite..... | 17,528,715 | 15,551,846 | 15,438,742 | 15,367,402 |
| Coke..... | 2,145,360 | 1,802,753 | 1,541,979 | 1,869,574 |
| Ores and concentrates..... | 12,876,555 | 13,007,268 | 13,188,073 | 25,253,017 |
| Base bullion, matte, pig and ingot (non-ferrous metals)..... | 1,428,033 | 1,451,520 | | |
| Sand and gravel..... | 4,503,818 | 5,646,813 | 5,123,134 | 6,913,537 |
| Stone (crushed, ground, broken)..... | 3,903,012 | 4,087,903 | 2,759,593 | 3,787,020 |
| Other mine products..... | 8,557,285 | 8,622,437 | 10,865,379 | 13,902,291 |
| Forest Products | 19,330,157 | 16,194,487 | 16,028,934 | 17,716,722 |
| Logs, posts, poles, piling..... | 2,372,333 | 1,947,648 | 1,855,530 | 2,140,987 |
| Cordwood and other firewood..... | 282,089 | 178,459 | 126,082 | 93,753 |
| Pulpwood..... | 8,663,783 | 5,878,947 | 6,131,899 | 6,018,071 |
| Lumber, timber, box, crate and cooperage material. | 7,153,936 | 7,237,941 | 7,093,440 | 8,469,574 |
| Other forest products..... | 858,016 | 951,492 | 821,983 | 994,087 |
| Manufactures and Miscellaneous | 48,926,829 | 48,799,032 | 45,024,553 | 50,969,180 |
| Gasoline and petroleum products..... | 7,460,770 | 7,611,184 | 7,948,948 | 8,629,172 |
| Iron and steel (bar, sheet, structural pipe)..... | 3,454,358 | 3,409,566 | 2,918,011 | 3,790,921 |
| Automobiles, trucks and parts..... | 2,302,126 | 2,809,963 | 1,514,478 | 2,784,925 |
| Newsprint..... | 4,010,699 | 3,927,865 | 4,082,615 | 4,245,705 |
| Pulp..... | 2,173,170 | 2,074,796 | 2,210,580 | 2,505,198 |
| Other manufactures and miscellaneous..... | 26,654,758 | 26,247,295 | 24,134,606 | 26,805,939 |
| Merchandise ¹ (all L.C.L. freight)..... | 2,865,948 | 2,718,363 | 2,215,315 | 2,227,320 |
| Grand Totals | 162,175,381 | 156,249,259 | 143,194,840 | 167,862,156 |

¹ Less than carload lots.

Railway Accidents.—In Tables 10 and 11 all passengers injured were included in the figures but, for employees, only injuries were recorded that kept the employee from his work for at least three days during the ten days following the accident.

10.—Passengers, Employees and Others Killed or Injured on Railways 1946-55

Note.—Figures for 1919-45 are given in the corresponding tables of previous Year Books beginning with the 1922-23 edition.

| Year | Passengers | | Employees | | Others ¹ | | Totals | |
|-------------------------|------------|---------|-----------|---------|---------------------|---------|--------|---------|
| | Killed | Injured | Killed | Injured | Killed | Injured | Killed | Injured |
| | No. | No. | No. | No. | No. | No. | No. | No. |
| 1946..... | 3 | 526 | 105 | 11,406 | 219 | 706 | 327 | 12,638 |
| 1947..... | 35 | 464 | 103 | 10,620 | 262 | 755 | 400 | 11,839 |
| 1948..... | 15 | 351 | 99 | 9,980 | 271 | 825 | 385 | 11,156 |
| 1949 ² | 1 | 316 | 71 | 8,794 | 257 | 824 | 329 | 9,934 |
| 1950..... | 18 | 297 | 67 | 8,108 | 232 | 744 | 317 | 9,149 |
| 1951..... | 5 | 221 | 84 | 7,651 | 301 | 723 | 390 | 8,595 |
| 1952..... | 2 | 183 | 74 | 7,019 | 317 | 707 | 393 | 7,909 |
| 1953..... | 4 | 181 | 35 | 5,917 | 266 | 727 | 305 | 6,825 |
| 1954..... | 4 | 251 | 48 | 4,654 | 245 | 586 | 297 | 5,491 |
| 1955..... | 1 | 235 | 48 | 4,467 | 258 | 552 | 307 | 5,254 |

¹ Includes trespassers walking along tracks, stealing rides, etc., and persons crossing tracks at level crossings.

² Newfoundland included from Apr. 1, 1949.

Accidents tabulated include all those in which railway trains were involved and accidents on railway property. The classification of accidents used for DBS vital statistics treats collisions between motor vehicles and trains as motor vehicle accidents; provincial statistics also class them as motor vehicle accidents and consequently adjustments should be made when compiling total accidental deaths of all kinds or comparing results of accidents of different kinds, such as train and motor vehicle.

11.—Persons Killed or Injured on Railways by Specified Cause 1953-55

| Class of Person and Description of Accident | 1953 | | 1954 | | 1955 | |
|--|------------|--------------|------------|--------------|------------|--------------|
| | Killed | Injured | Killed | Injured | Killed | Injured |
| ACCIDENTS RESULTING FROM MOVEMENT OF TRAINS, LOCOMOTIVES OR CARS | | | | | | |
| Class of Person— | No. | No. | No. | No. | No. | No. |
| Passengers..... | 3 | 133 | 4 | 215 | 1 | 188 |
| Employees..... | 30 | 2,017 | 37 | 1,646 | 39 | 1,582 |
| Trespassers..... | 77 | 90 | 71 | 57 | 71 | 61 |
| Non-trespassers..... | 174 | 479 | 169 | 417 | 180 | 413 |
| Postal clerks, expressmen, etc..... | 6 | 62 | — | 24 | 1 | 18 |
| Totals..... | 290 | 2,781 | 281 | 2,359 | 292 | 2,262 |
| Description of Accidents (Employees and Passengers only)— | | | | | | |
| Coupling and uncoupling..... | 1 | 78 | 4 | 70 | 1 | 88 |
| Collisions..... | 9 | 112 | 11 | 201 | 11 | 160 |
| Derailments..... | 7 | 109 | 9 | 91 | 5 | 36 |
| Locomotives or cars breaking down..... | — | — | — | 2 | 1 | 4 |
| Falling from trains or cars..... | 3 | 117 | 3 | 86 | 3 | 107 |
| Getting on or off trains..... | — | 457 | 1 | 344 | 1 | 361 |
| Struck by trains, etc..... | 6 | 32 | 5 | 22 | 12 | 21 |
| Overhead and other obstruction..... | — | 36 | 2 | 11 | — | 22 |
| Other causes..... | 7 | 1,209 | 6 | 1,034 | 6 | 971 |
| Totals..... | 33 | 2,150 | 41 | 1,861 | 40 | 1,770 |
| ALL OTHER ACCIDENTS | | | | | | |
| Class of Person— | No. | No. | No. | No. | No. | No. |
| Stationmen..... | — | 564 | 1 | 461 | — | 380 |
| Shopmen..... | 2 | 1,428 | 4 | 1,102 | — | 1,047 |
| Trackmen..... | 3 | 1,382 | 3 | 980 | 5 | 940 |
| Other employees..... | — | 526 | 3 | 465 | 4 | 518 |
| Passengers..... | 1 | 48 | — | 36 | — | 47 |
| Others..... | 9 | 96 | 5 | 88 | 6 | 60 |
| Totals..... | 15 | 4,044 | 16 | 3,132 | 15 | 2,992 |

Subsection 4.—The Canadian National Railway System*

In view of the interest in Canada's publicly owned railway, the Canadian National Railway System is given separate treatment in this Subsection. Its history is presented in a special article published in the 1955 Year Book at pp. 840-847. More detailed information than can be given here is obtainable from DBS annual report, *Canadian National Railways*.

Financial Statistics.—The original financial Structure of the CNR and the steps taken through the Capital Revision Acts of 1937 and 1952 to alleviate the burden of interest debt undertaken by the Company on its formation in 1923 are described in the special article mentioned above. Briefly, the Capital Revision Act of 1937 wrote off all loans that had been made to cover deficits and also unpaid interest on loans, and certain loans made for the purpose of additions and betterments were converted to equity capital, relieving the CNR from paying fixed charges on this amount. Under the 1952 Capital Revision Act, 50 p.c. of the Company's interest-bearing debt was changed to preferred stock on which, after settling income taxes, a dividend of 4 p.c. is paid on earnings. Also for a term of ten years ending Dec. 31, 1961, the Railway is not obliged to pay interest on \$100,000,000 of its long-term debt. The Government is authorized to buy additional preferred stock annually in amounts related to the Company's gross revenues. As a consequence, the proportion of total capitalization represented by equity capital in shareholders' account was raised from 34.5 p.c. at Dec. 31, 1951, to 67.2 p.c. at Jan. 1, 1952, and the proportion of borrowed capital was correspondingly reduced.

12.—Capital Structure of the Canadian National Railway System as at Dec. 31, 1946-56

NOTE.—Information given in greater detail in DBS report, *Canadian National Railways*.

| At Dec. 31— | Shareholders' Capital | | Funded Debt Held by Public | | Government Loans and Appropriations—Active Assets in Public Accounts | Totals |
|-------------|--|------------------------------|--|------------|--|---------------|
| | Government of Canada Shareholders' Account | Capital Stock Held by Public | Guaranteed by Federal and Provincial Governments | Other | | |
| | \$ | \$ | \$ | \$ | \$ | \$ |
| 1946..... | 776,018,575 | 4,635,440 | 488,772,318 | 41,650,680 | 718,537,286 | 2,029,614,299 |
| 1947..... | 774,195,901 | 4,570,940 | 538,759,177 | 44,100,584 | 689,470,349 | 2,051,096,951 |
| 1948..... | 774,242,649 | 4,567,540 | 492,437,507 | 91,795,151 | 760,494,825 | 2,123,537,672 |
| 1949..... | 774,448,716 | 4,560,290 | 539,706,744 | 85,159,176 | 743,661,162 | 2,147,536,088 |
| 1950..... | 776,395,649 | 4,520,890 | 566,418,607 | 92,611,634 | 739,847,514 | 2,179,794,294 |
| 1951..... | 776,395,649 | 4,518,890 | 518,396,607 | 96,800,428 | 857,573,774 | 2,253,685,348 |
| 1952..... | 1,531,072,324 | 4,516,490 | 518,396,607 | 87,098,222 | 228,055,165 | 2,369,138,808 |
| 1953..... | 1,552,050,067 | 4,514,490 | 513,977,391 | 75,834,299 | 342,140,048 | 2,488,516,295 |
| 1954..... | 1,571,393,181 | 4,514,490 | 910,422,885 | 62,546,711 | 126,771,981 | 2,675,649,248 |
| 1955..... | 1,591,902,624 | 4,511,150 | 861,870,899 | 34,493,192 | 199,444,622 | 2,692,222,487 |
| 1956..... | 1,616,270,966 | 4,508,670 | 794,482,906 | 25,086,606 | 353,664,828 | 2,794,013,976 |

In Table 13, the assets of the Canadian National Railway System as at Dec. 31, 1955, are compared with those at the time of consolidation of the System.

* The Hudson Bay Railway is a direct responsibility of the Federal Government and has been operated by the CNR for the Government since Apr. 1, 1935; statistics relating to the operation of this line are not included in the data for the CNR.

13.—Assets of the Canadian National Railway System as at Dec. 31, 1922 and 1955

| Account | Dec. 31, 1922 | Dec. 31, 1955 | Increase or Decrease |
|---|----------------------|-------------------------|----------------------------|
| | \$ | \$ | \$ |
| Investments | 1,842,428,131 | 2,838,826,905 | 996,398,774 |
| Road and equipment..... | 1,765,323,644 | 2,677,652,227 | 972,328,583 |
| Improvements on leased railway property..... | 1,492,123 | 1,215,945 | -276,178 |
| Sinking funds..... | 4,629,855 | — | -4,629,855 |
| Deposits in lieu of mortgaged property sold..... | 6,171,808 | 24,701 | -6,147,107 |
| Miscellaneous physical property..... | 34,767,914 | 78,422,696 | 43,654,782 |
| Affiliated companies..... | 24,253,323 | 79,819,560 | 55,566,237 |
| Other investments..... | 5,789,464 | 1,691,776 | -4,097,688 |
| Current Assets | 87,580,218 | 196,970,508 | 109,390,290 |
| Cash..... | 14,651,422 | 53,998,888 ¹ | 39,347,466 |
| Special deposits..... | 6,139,435 | 3,013,767 | -3,125,668 |
| Loans and bills receivable..... | 11,600 | — | -11,600 |
| Traffic and car service, balances receivable..... | 2,528,622 | — | -2,528,622 |
| Net balances receivable from agents and conductors..... | 5,386,673 | 30,411,032 | 25,024,359 |
| Miscellaneous accounts receivable..... | 16,857,420 | 26,225,288 | 8,367,868 |
| Materials and supplies..... | 41,408,999 | 76,006,729 | 34,597,730 |
| Interest and dividends receivable..... | 377,003 | 186,023 | -190,980 |
| Rents receivable..... | 112,269 | — | -112,269 |
| Other current assets..... | 106,775 | 7,128,781 | 7,022,006 |
| Deferred Assets | 12,325,297 | 154,904,644 | 142,579,347 |
| Working fund advances..... | 166,847 | 621,339 | 454,492 |
| Insurance and other funds..... | 352,488 | 15,000,000 | 14,647,512 |
| Pension contract fund..... | — | 128,000,000 | 128,000,000 |
| Other deferred assets..... | 11,805,962 | 11,283,305 | -522,657 |
| Unadjusted Debits | 15,697,557 | 19,163,906 | 3,466,349 |
| Rents and insurance premiums paid in advance..... | 322,059 | 3,397,307 | 3,075,248 |
| Discount on capital stock..... | 634,960 | — | -634,960 |
| Discount on funded debt..... | 1,919,635 | 6,298,218 | 4,378,583 |
| Other unadjusted debits..... | 12,820,903 | 9,468,381 | -3,352,522 |
| Grand Totals | 1,958,031,203 | 3,209,865,963 | 1,251,834,760 |

¹ Includes temporary cash investments.

Operating Finances.—Total revenue, operating expenditure and net revenue include only those from railway and commercial telegraph operations but the deficits are for the entire System, including the operating results of the Niagara, St. Catharines and Toronto Railway (electric) and other railways operated separately, hotels, commercial telegraphs, coastal steamships and all other outside operations.

14.—Total Revenue, Operating Expenditure, Net Revenue, Fixed Charges and Deficits of the Canadian National Railway System¹ 1946-55

NOTE.—Figures for 1911-25 are given in the 1936 Year Book, p. 660; for 1926-39 in the 1942 Year Book, p. 590; and for 1940-45 in the 1951 edition, p. 731. Newfoundland is included from Apr. 1, 1949.

| Year | Total Operating Revenue | Total Operating Expenditure | Income Available for Fixed Charges | Total Fixed Charges | Net Income or Deficit ² | Cash Deficit or Surplus ³ |
|-----------|-------------------------------|-----------------------------------|---|------------------------|---------------------------------------|---|
| | \$ | \$ | \$ | \$ | \$ | \$ |
| 1946..... | 400,586,026 | 357,236,718 | 37,239,784 | 46,685,316 | Dr. 9,445,532 | Dr. 8,961,570 |
| 1947..... | 438,197,980 | 397,122,607 | 29,330,757 | 45,925,891 | " 16,595,134 | " 15,885,194 |
| 1948..... | 491,269,950 | 464,739,970 | 12,502,931 | 48,341,727 | " 33,838,796 | " 33,532,741 |
| 1949..... | 500,723,386 | 478,501,660 | 6,152,649 | 48,631,896 | " 42,479,247 | " 42,043,027 |
| 1950..... | 553,831,581 | 493,907,079 | 44,084,904 | 47,421,983 | " 3,337,079 | " 3,261,235 |
| 1951..... | 624,834,120 | 580,150,221 | 31,722,489 | 48,176,558 | " 16,454,069 | " 15,031,996 |
| 1952..... | 675,219,415 | 634,852,915 | 25,702,660 | 25,415,189 | Cr. 287,471 | Cr. 142,327 |
| 1953..... | 696,622,451 | 659,049,086 | 29,238,623 | 29,376,160 | Dr. 137,537 | " 244,017 |
| 1954..... | 640,637,280 | 626,465,374 | 7,574,821 | 32,527,264 | " 24,952,443 | Dr. 28,758,098 |
| 1955..... | 683,088,794 | 629,013,125 | 43,478,955 | 33,004,300 | Cr. 10,474,655 | Cr. 10,717,689 |

¹ Includes the Central Vermont Railway, Incorporated.³ Contributed by or paid to the Federal Government.² Includes appropriations for insurance fund.

Milage and Traffic.—At Dec. 31, 1955, main-track milage (exclusive of electric lines) of the Canadian National Railways (including lines in the United States and Newfoundland but exclusive of the Northern Alberta Railways and Toronto Terminals Railway lines controlled jointly by the Canadian National and the Canadian Pacific Railways) was 24,277.9 miles. Including the Thousand Islands Railway, 4.51 miles, controlled but operated separately, the total milage was 24,282.4. The grand total, including 70.2 miles of electric line, was 24,352.6 miles.

15.—Train Traffic Statistics of the Canadian National Railways (Canadian and United States Lines) 1953-55

(Exclusive of electric line)

| Milage and Traffic | 1953 | 1954 | 1955 |
|--|-------------------------------|-------------------------------|-------------------------|
| Train Milage miles | 73,791,657¹ | 68,020,618¹ | 68,725,003 |
| Passenger service..... " | 24,949,141 | 24,315,627 | 23,559,606 |
| Freight service..... " | 46,883,109 | 41,691,390 | 43,128,824 |
| Work service..... " | 1,959,407 | 2,013,601 | 2,036,573 |
| Passenger-Train Car Milage miles | 232,400,747 | 223,407,059 | 224,083,492 |
| Coaches and combination..... " | 67,478,330 ¹ | 61,520,399 ¹ | 58,262,739 ¹ |
| Motor unit cars..... " | 1,021,566 | 1,047,101 | 1,264,116 |
| Parlour, sleeping and dining cars..... " | 64,340,084 | 63,607,197 | 66,111,326 |
| Baggage, mail, express, etc..... " | 99,560,767 | 97,232,362 | 98,445,311 |
| Freight-Train Car Milage miles | 1,987,320,004 | 1,811,359,472 | 1,935,098,616 |
| Loaded freight..... " | 1,308,501,856 | 1,183,987,402 | 1,268,426,467 |
| Empty freight..... " | 632,418,375 | 585,973,718 | 623,331,197 |
| Caboose..... " | 46,399,773 | 41,398,352 | 43,340,952 |
| Work-Train Car Milage miles | 3,531,351 | 4,295,991 | 4,058,029 |
| Passenger Traffic— | | | |
| Passengers carried (earning revenue)..... No. | 18,080,958 | 17,858,916 | 16,811,280 |
| Passengers carried (earning revenue) one mile..... " | 1,558,832,219 | 1,471,708,931 | 1,463,653,329 |
| Passenger-train miles per mile of road..... " | 1,033 | 1,007 | 972 |
| Average passenger journey..... miles | 85.11 | 82.41 | 87.06 |
| Average amount received per passenger..... \$ | 2.53948 | 2.45015 | 2.61313 |
| Average amount received per passenger mile..... \$ | 0.02984 | 0.02973 | 0.03001 |
| Average passengers per train mile..... No. | 61.68 | 60.53 | 62.13 |
| Average passengers per car mile..... " | 12.40 | 12.53 | 12.55 |
| Total passenger-train earnings per train mile..... \$ | 3.98 | 3.90 | 4.11 |
| Total passenger-train revenue per mile of road..... \$ | 4,113.98 | 3,926.55 | 3,994.15 |
| Freight Traffic— | | | |
| Revenue freight carried..... tons | 86,523,327 | 79,338,230 | 87,606,859 |
| Revenue freight carried one mile..... " | 36,677,980,252 | 32,881,706,496 | 35,677,183,245 |
| Revenue freight carried one mile per mile of road..... " | 1,513,672 | 1,356,505 | 1,466,853 |
| Total (all classes) freight carried one mile per mile of road..... " | 1,626,843 | 1,443,839 | 1,544,752 |
| Average tons revenue freight per train mile..... No. | 782 | 789 | 827 |
| Average tons (all classes) freight per loaded car mile..... " | 30.03 | 29.46 | 29.53 |
| Average hauls revenue freight..... miles | 423.91 | 414.45 | 407.24 |
| Freight revenue per train mile..... \$ | 11.81 | 12.06 | 12.50 |
| Freight revenue per mile of road..... \$ | 22,921.32 | 20,816.40 | 22,245.23 |
| Freight revenue per ton..... \$ | 6.40 | 6.34 | 6.15 |
| Freight revenue per ton mile..... \$ | 0.01501 | 0.01529 | 0.01511 |

¹ Excludes work service.

Section 2.—Express Companies

Express, which is actually expedited freight carried on passenger trains, is one of the services provided by companies which do not own the means of conveyance but use the facilities of railway companies under contract. The majority of such contracts provide for payment to the railways of a fixed percentage of the gross express revenue.

Express companies are organized under authority of federal legislation and their business concerns the rapid transit of valuable or perishable commodities and animals, the delivery of parcels and the issuing of financial papers, money orders, travellers' cheques and letters of credit. Express rates are usually much higher than freight rates and the two services are not normally competitive. Both tariffs are subject to the approval of the Board of Transport Commissioners.

Four express organizations operate in Canada—three Canadian and one American. The Canadian Pacific Express Company is a subsidiary of the Canadian Pacific Railway Company and handles the express business on the railways and the inland and ocean steamship lines of the parent company. The express business of the Canadian National and Northern Alberta Railways is handled by departments of the respective railways. The Railway Express Agency, Incorporated, of the United States operates over the Canadian sections of United States railways and over the route from Skagway in Alaska to points in Yukon Territory. No statistics are available on the volume of express traffic because much of it consists of parcels and small lots that cannot be classified.

16.—Summary Statistics of Express Companies 1946-55

NOTE.—Figures for 1911-45 are given in the corresponding table of previous Year Books beginning with the 1927-28 edition.

| Year or Company | Milages Operated ¹ | Gross Earnings | Operating Expenditure | Express Privileges ² | Net Operating Revenue |
|---|-------------------------------|----------------|-----------------------|---------------------------------|-----------------------|
| | No. | \$ | \$ | \$ | \$ |
| 1946..... | 51,365 | 39,260,553 | 22,670,616 | 16,841,229 | Dr. 251,292 |
| 1947..... | 51,341 | 42,314,758 | 25,770,190 | 17,650,061 | Dr. 1,105,493 |
| 1948..... | 51,840 | 46,809,112 | 30,398,053 | 18,785,988 | Dr. 2,374,929 |
| 1949..... | 54,806 | 51,966,290 | 32,385,223 | 21,226,817 | Dr. 1,645,750 |
| 1950..... | 55,581 | 52,017,492 | 32,881,689 | 21,355,956 | Dr. 2,220,153 |
| 1951..... | 57,355 | 60,423,503 | 38,374,128 | 21,037,164 | 1,012,211 |
| 1952..... | 57,335 | 70,185,114 | 44,744,018 | 24,428,739 | 1,012,357 |
| 1953..... | 55,805 | 74,296,948 | 49,569,842 | 23,584,806 | 1,142,300 |
| 1954..... | 68,373 ³ | 70,039,054 | 48,167,243 | 20,753,503 | 1,118,308 |
| 1955..... | 65,916 ⁴ | 73,434,962 | 48,726,272 | 23,533,770 | 1,174,920 |
| 1955 | | | | | |
| Canadian National Express..... | 40,805 | 38,353,086 | 25,964,276 | 11,730,432 | 658,378 |
| Canadian Pacific Express..... | 21,529 | 32,835,695 | 21,650,032 | 10,737,173 | 448,490 |
| Northern Alberta Railways..... | 928 | 692,741 | 328,893 | 307,672 | 56,176 |
| Railway Express Agency, Inc. (U.S.A.).. | 2,654 | 1,553,440 | 783,071 | 758,493 | 11,876 |

¹ Over railways, boat lines and motor carrier and aircraft routes. ² Amounts paid by express companies to the carriers, i.e., railways, steamship lines, etc., for transporting express matter. ³ 12,290 aircraft miles were reported by the Canadian National Express. ⁴ 9,286 and 1,194 aircraft miles reported by Canadian National Express and Railway Express Agency, Inc., respectively.

17.—Business Transacted by Express Companies in Financial Paper 1951-55

| Item | 1951 | 1952 | 1953 | 1954 | 1955 |
|---|--------------------|--------------------|--------------------|--------------------|--------------------|
| | \$ | \$ | \$ | \$ | \$ |
| Money orders, domestic and foreign.... | 137,215,925 | 134,870,537 | 134,996,758 | 130,807,463 | 133,479,411 |
| Travellers cheques, domestic and foreign..... | 7,753,328 | 7,332,881 | 7,589,928 | 7,788,302 | 8,110,137 |
| C.O.D. cheques..... | 24,186,587 | 23,826,544 | 22,144,909 | 20,966,806 | 20,656,753 |
| Telegraphic transfers..... | 191,188 | 255,243 | 274,705 | 214,475 | 167,877 |
| Totals..... | 169,347,028 | 166,285,205 | 165,006,300 | 159,777,046 | 162,413,878 |

18.—Employees, Salaries, Wages and Commissions of Express Companies 1946-55

| Year | Full-Time Employees | Salaries and Wages ¹ | Com-missions Paid | Year | Full-Time Employees | Salaries and Wages ¹ | Com-missions Paid |
|-----------|---------------------|---------------------------------|-------------------|-----------|---------------------|---------------------------------|-------------------|
| | No. | \$ | \$ | | No. | \$ | \$ |
| 1946..... | 7,430 | 16,060,439 | 1,975,856 | 1951..... | 9,610 | 28,607,463 | 2,443,341 |
| 1947..... | 8,017 | 18,308,793 | 1,995,947 | 1952..... | 10,849 | 32,503,058 | 2,689,830 |
| 1948..... | 8,525 | 22,212,249 | 2,157,489 | 1953..... | 12,119 | 37,413,060 | 2,795,766 |
| 1949..... | 8,809 | 23,621,322 | 2,283,425 | 1954..... | 11,450 ² | 35,882,288 | 2,691,440 |
| 1950..... | 8,974 | 24,195,490 | 2,177,933 | 1955..... | 11,593 ² | 36,200,739 | 2,745,259 |

¹ Includes wages paid to part-time employees.² Includes part-time employees.

Section 3.—Urban Transit Systems

The collection of statistical information on urban transportation systems is undergoing extensive reorganization. Such drastic changes have been made in recent years in the types of vehicles used for mass passenger movement in urban centres that the statistical series, which began with the financial and operating statistics of electric railways and later included their motor bus and trolley coach lines, has become inadequate.

The new series will cover all transit systems including electric railway, subway, motor bus, motor coach or trolley coach operation carrying passengers in urban, suburban or interurban service. A transit system may mean any one of these operations or any combination of them. Table 19 gives currently available summary statistics for all urban transit systems. Tables 20 to 23 give the latest information on electric railway systems, continuing the series presented in previous editions of the Year Book until the new, more comprehensive series becomes available.

19.—Summary Statistics of Urban Transit Systems 1955-57

| Item | | 1955 ^c | 1956 | 1957 |
|-------------------------------------|------------|--------------------------|--------------------------|--------------------------|
| Passengers Carried..... | No. | 1,211,639,415 | 1,174,547,450 | 1,137,667,983 |
| Electric car..... | " | 398,439,820 ¹ | 340,650,647 ¹ | 291,285,791 ¹ |
| Trolley bus..... | " | 241,401,062 | 234,500,323 | 231,967,345 |
| Motor bus..... | " | 568,070,562 | 592,458,533 | 606,406,554 |
| Chartered..... | " | 3,727,971 | 6,937,947 | 8,008,293 |
| Vehicle-Miles Run..... | No. | 209,791,650 | 211,707,516 | 207,492,365 |
| Electric car..... | " | 53,951,724 ² | 48,468,311 ² | 43,229,966 ² |
| Trolley bus..... | " | 38,003,904 | 37,751,069 | 37,411,448 |
| Motor bus..... | " | 115,966,244 | 122,844,108 | 124,416,243 |
| Chartered..... | " | 1,869,778 | 2,644,028 | 2,434,708 |
| Fuel Consumed— | | | | |
| Gasoline..... | gal. | 17,699,183 | 16,775,047 | 14,274,018 |
| Propane gas..... | " | 352,229 | 338,406 | 298,115 |
| Diesel oil..... | " | 6,435,627 | 8,977,833 | 11,065,922 |
| Gross Passenger Revenue..... | \$ | 120,151,553 | 128,945,040 | 131,838,270 |

¹ Includes 35,147,070 passengers carried by the Toronto subway in 1955, 36,224,003 passengers in 1956 and 36,579,014 in 1957.

² Includes 5,597,500 miles run by the Toronto subway cars in 1955, 6,152,164 miles in 1956 and 6,984,792 in 1957.

Electric Railway Systems.—The statistics given here cover the urban and inter-urban operations of electric railway systems. Almost all the urban systems are now municipally owned, the largest privately owned system being the British Columbia Electric Railway Company; most of the interurban firms are controlled either by the Canadian National or Canadian Pacific Railways. The number of electric railways declines each year as motor and trolley buses replace electric cars. Of the 21 systems in service in 1955, five operated electric cars, motor buses and trolley buses; nine operated trolley buses and motor buses; three operated electric cars only; one operated electric cars and motor buses; one, trolley buses only; one, motor buses only; and one reported no electric cars, motor buses or trolley buses.

20.—Equipment of Electric Railways 1953-55

| Equipment | 1953 | 1954 | 1955 | Equipment | 1953 | 1954 | 1955 |
|---|--------------|--------------|--------------|-------------------------------------|------------|------------|------------|
| | No. | No. | No. | | No. | No. | No. |
| Passenger Vehicles | 5,602 | 5,629 | 5,648 | Other Vehicles | 661 | 648 | 642 |
| Closed cars..... | 2,212 | 2,112 | 1,837 | Baggage, express and mail cars..... | 10 | 7 | 4 |
| Open cars..... | 4 | 4 | 4 | Freight cars..... | 82 | 89 | 87 |
| Combination passenger and baggage cars..... | 5 | 5 | 2 | Locomotives..... | 56 | 56 | 55 |
| Cars without electrical equipment..... | 91 | 16 | 6 | Snow ploughs..... | 46 | 42 | 34 |
| Motor buses..... | 2,177 | 2,348 | 2,656 | Sweepers..... | 65 | 54 | 38 |
| Trackless trolley buses..... | 1,113 | 1,144 | 1,143 | Trucks..... | 221 | 224 | 254 |
| | | | | Miscellaneous..... | 181 | 176 | 170 |

The financial statistics of electric railways given in Table 21 have been greatly affected by variations in traffic and by changes in mode of local transportation. When electric railways have ceased operation because of declining traffic or have substituted other types of rolling-stock their figures have been dropped from the tabulation. Despite changing conditions, however, the gross revenue of electric railways has continued to rise in the postwar years. The ratio of expenses to receipts advanced from 86.3 p.c. in 1946 to 99.9 p.c. in 1955. Many systems have changed from private to public ownership in the past few years which accounts for much of the recorded decline in the value of stocks and the increase in funded debt.

21.—Financial Statistics of Electric Railways 1946-55

NOTE.—Figures for 1901-45 are given in the corresponding table of previous Year Books beginning with the 1926 edition.

| Year | Capital Liability | | | Investment in Road and Equipment | Operating Revenues | Operating Expenses | Ratio of Expenses to Revenues | Em- ployees | Salaries and Wages |
|----------|------------------------|-------------|-------------|----------------------------------|--------------------|--------------------|-------------------------------|----------------|--------------------|
| | Stocks | Funded Debt | Total | | | | | | |
| | \$ | \$ | \$ | \$ | \$ | \$ | p.c. | No. | \$ |
| 1946.... | 35,656,763 | 132,042,089 | 167,698,852 | 203,537,797 | 87,515,721 | 75,550,821 | 86.33 | 21,700 | 45,675,363 |
| 1947.... | 33,915,932 | 138,246,540 | 172,162,472 | 218,439,361 | 86,519,712 | 81,787,723 | 94.53 | 22,627 | 50,117,441 |
| 1948.... | 28,138,481 | 140,692,280 | 168,830,761 | 217,385,299 | 89,310,215 | 88,024,727 | 98.56 | 22,593 | 55,268,083 |
| 1949.... | 27,425,491 | 143,944,716 | 171,370,207 | 242,095,483 | 95,596,394 | 92,378,848 | 96.63 | 21,661 | 59,155,605 |
| 1950.... | 27,252,391 | 159,192,557 | 186,444,978 | 223,224,556 | 91,034,058 | 89,414,380 | 98.22 | 21,869 | 57,645,574 |
| 1951.... | 20,252,391 | 179,159,159 | 199,411,550 | 255,057,250 | 99,114,548 | 97,880,959 | 98.76 | 21,052 | 64,188,551 |
| 1952.... | 5,535,795 ¹ | 147,980,882 | 153,516,177 | 280,037,852 | 104,028,691 | 101,110,712 | 97.20 | 20,268 | 67,252,025 |
| 1953.... | 4,336,065 | 181,781,857 | 186,117,922 | 283,256,339 | 107,990,692 | 105,027,443 | 97.26 | 20,408 | 68,638,778 |
| 1954.... | 4,336,065 | 188,560,890 | 192,896,955 | 291,138,722 | 109,334,662 | 109,006,301 | 99.70 | 20,318 | 70,109,414 |
| 1955.... | 3,893,725 | 180,906,824 | 184,800,549 | 294,095,916 | 109,617,497 | 109,576,378 | 99.96 | 19,280 | 69,632,464 |

¹ Decrease from 1951 accounted for by the re-capitalization of the Winnipeg Electric Company; transit facilities of that Company were transferred to the Greater Winnipeg Transit Company.

In 1955, electric cars travelled 55,650,898 miles in passenger service, trackless trolley buses operated by electric railway companies travelled 37,975,614 miles and motor buses 74,831,056 miles. Although most of the urban centres in which transit services operate have greatly extended their populated areas in the postwar years, the number of fare passengers carried has declined each year since 1946.

22.—Traffic Statistics of Electric Railways 1946-55

NOTE.—Figures for 1901-45 are given in the corresponding table of previous Year Books beginning with the 1933 edition.

| Year | Miles of Road | | Electric Car and Bus Milage | | | Fare Passengers Carried ¹ | Freight Carried ¹ |
|-----------|---------------|-------------------------|-----------------------------|-----------|-------------|--|---------------------------------|
| | Total | With Double Track | Passenger | Other | Total | | |
| | miles | miles | miles | miles | miles | No. | tons |
| 1946..... | 1,004.44 | 485.06 | 177,256,084 | 2,822,300 | 180,078,384 | 1,344,916,773 | 3,506,805 |
| 1947..... | 895.25 | 436.95 | 180,204,812 | 2,808,252 | 183,013,064 | 1,323,723,782 | 3,655,278 |
| 1948..... | 778.92 | 391.78 | 182,943,709 | 3,038,989 | 185,982,698 | 1,309,565,795 | 4,050,111 |
| 1949..... | 719.31 | 356.61 | 173,849,096 | 3,048,146 | 176,897,242 | 1,240,558,812 | 3,702,016 |
| 1950..... | 662.96 | 326.90 | 173,285,475 | 3,562,144 | 176,847,619 | 1,192,058,052 | 4,115,974 |
| 1951..... | 595.38 | 293.87 | 167,316,921 | 3,646,069 | 170,962,990 | 1,133,393,935 | 4,479,404 |
| 1952..... | 567.79 | 272.02 | 166,432,237 | 3,759,193 | 170,191,430 | 1,109,299,866 | 4,079,474 |
| 1953..... | 552.49 | 261.81 | 164,871,341 | 3,593,002 | 168,464,343 | 1,076,979,055 | 3,968,742 |
| 1954..... | 531.91 | 239.75 | 170,284,356 | 3,308,732 | 173,593,088 | 1,063,705,752 | 3,527,495 |
| 1955..... | 509.19 | 220.26 | 168,457,568 | 4,026,233 | 172,483,801 | 1,025,314,237 | 4,079,549 |

¹ Includes passengers and freight carried on buses and trackless trolley buses operated by electric railways.

23.—Passengers, Employees and Others Killed or Injured on Electric Railways 1946-55

NOTE.—Figures for 1900-45 are given in the corresponding table of previous Year Books beginning with the 1926 edition.

| Year | Passengers | | Employees | | Others | | Totals | |
|-----------|------------|---------|-----------|---------|--------|---------|--------|---------|
| | Killed | Injured | Killed | Injured | Killed | Injured | Killed | Injured |
| | No. | No. | No. | No. | No. | No. | No. | No. |
| 1946..... | 8 | 4,009 | 3 | 904 | 66 | 1,584 | 77 | 6,497 |
| 1947..... | 2 | 4,181 | 4 | 910 | 71 | 1,469 | 77 | 6,560 |
| 1948..... | 2 | 3,792 | 5 | 1,336 | 74 | 1,328 | 81 | 6,456 |
| 1949..... | 1 | 3,688 | 1 | 766 | 63 | 1,239 | 65 | 5,693 |
| 1950..... | — | 3,718 | 1 | 730 | 44 | 1,204 | 45 | 5,652 |
| 1951..... | — | 3,392 | 2 | 650 | 42 | 998 | 44 | 5,040 |
| 1952..... | 2 | 3,551 | 1 | 655 | 40 | 1,046 | 43 | 5,252 |
| 1953..... | — | 3,322 | 2 | 650 | 31 | 941 | 33 | 4,913 |
| 1954..... | 1 | 3,190 | — | 702 | 41 | 856 | 42 | 4,748 |
| 1955..... | 4 | 3,220 | 2 | 631 | 19 | 803 | 25 | 4,654 |

The Toronto Subway.—Construction of Canada's first subway commenced at Toronto in 1949 and the line was put into operation in March 1954. The route of the subway follows the general line of Yonge Street, a distance of about 4.5 miles from Front Street to Eglinton Avenue. Twelve stations are located along the line and a pedestrian tunnel links the Union Station and the Royal York Hotel with the subway. Subsurface sections of the subway are from six to 20 feet underground. Rapid-transit cars, 104 in number, each of 62-passenger capacity, are used. The 500-foot platforms at all stations accommodate trains of up to eight cars in length and a peak load of 40,000 passengers an hour in each direction may be handled.

PART III.—ROAD TRANSPORT*

Highways and motor vehicles are herein treated as related features of transportation. An introductory section summarizes provincial regulations regarding motor vehicles and motor traffic.

Section 1.—Provincial Motor Vehicle and Traffic Regulations†

NOTE.—It is obviously impossible to include here the great mass of detailed regulations in force in each province and territory; only the more important general information is given. The sources of information for detailed regulations for specific provinces and territories are given at pp. 832-833.

The registration of motor vehicles and the regulation of motor vehicle traffic lies within the legislative jurisdiction of the provincial and territorial governments. Regulations common to all provinces and territories are summarized under the following headings.

Operators' Licences.—The operator of a motor vehicle must be over a specified age, usually 16 years (17 in Newfoundland and Quebec, and 18 in Alberta), and must carry a licence, obtainable in most provinces only after prescribed qualification tests and renewable annually, except in Alberta and British Columbia where they are renewable every five years. Special licences are required for chauffeurs in all provinces except Newfoundland and in some jurisdictions special licences may be granted to those who have not reached the specified age.

Motor Vehicle Regulations.—In general, all motor vehicles and trailers must be registered annually, with the payment of specified fees, and must carry two registration plates, one on the front and one on the back of the vehicle (one only for the back of trailers). In most provinces in event of sale the registration plates stay with the car but in Manitoba and Saskatchewan the plates are retained by the owner. A change of ownership of the vehicle must be recorded with the registration authority. However, exception from registration is granted for a specified period (usually at least 90 days except in Quebec where the maximum is 90 days and British Columbia where it is six months) in any year to visitors' private vehicles registered in another Province or a State that grants reciprocal treatment. Regulations require a safe standard of efficiency in the mechanism of the vehicle and of its brakes and stipulate that equipment include non-glare headlights, a proper rear light, a satisfactory locking device, a muffler, a windshield wiper and a rear-vision mirror.

Traffic Regulations.—In all provinces and territories, vehicles keep to the right-hand side of the road. Everywhere motorists are required to observe traffic signs, lights, etc., placed at strategic points on highways and roads. The speed limit in most provinces is 50 miles an hour except in Quebec where it is 60, in Manitoba and Alberta where it is 60 in daytime and 50 at night, and in Nova Scotia where the limit is a "reasonable and prudent" speed (of about 40). Slower speeds are always required in cities, towns and villages, when passing schools and public playgrounds, at road intersections, railway crossings, or at other places or times where the view of the highway for a safe distance ahead is in any way obscured. In almost all provinces truck speed limits are at least five miles an hour below automobile speed limits. Motor vehicles must not pass a street car that has stopped to take on or discharge passengers except where safety zones are provided. In most provinces accidents resulting in personal injury or property damage of \$100 or more must be reported to a provincial or municipal police officer and a driver involved must not leave the scene of an accident until he has rendered all possible aid and disclosed his name to the injured party.

* Except as otherwise indicated, the material in this Part has been revised in the Public Finance and Transportation Division, Dominion Bureau of Statistics.

† The information in this Section has been revised from material provided by the officials in charge of the administration of motor vehicle and traffic Acts and Regulations in the individual provinces and territories.

Penalties.—Penalties ascend in scale from small fines for minor infractions of any of the regulations to suspension of the operator's driving permit, impounding of the car, or imprisonment for serious infractions, recklessness, driving without an operator's licence, and especially for attempting to operate a motor vehicle while intoxicated.

Safety Responsibility Legislation.—Each province of Canada has enacted legislation under this heading (sometimes referred to as financial responsibility legislation). In general, these laws provide for the automatic suspension of the driver's licence and motor vehicle permit of a person convicted of an offence arising out of a motor vehicle accident, or a person involved directly or indirectly in an accident who is not covered for third-party insurance at the time of the accident. The suspension remains effective until any penalty or judgment has been satisfied and proof of financial responsibility for the future is filed.

Although safety responsibility legislation has not been enacted in either the Yukon Territory or the Northwest Territories, the Motor Vehicle Ordinances of the two Territories require the owner of a motor vehicle to submit evidence of stipulated insurance coverage on such vehicle before he can obtain registration.

Unsatisfied Judgment Funds.—In recent years a new type of motor vehicle legislation has been enacted in all provinces except Quebec and Saskatchewan. This has usually taken the form of an amendment to the motor vehicle laws of the province and provides for the establishment of an Unsatisfied Judgment Fund, out of which are paid judgments awarded for damages arising out of motor vehicle accidents in the province which cannot be collected in the ordinary process of law. The Fund is created by the collection annually of an Unsatisfied Judgment Fund fee from the registered owner of every motor vehicle or from every person to whom a driver's licence is issued, except in British Columbia where the Fund is maintained by insurance companies. This fee does not exceed \$1 per annum except that, in 1958, Ontario will collect \$5 from each uninsured owner of a motor vehicle at the time of registration. A feature of this legislation which is contained in some provincial statutes provides for the payment of judgments in the so-called 'hit-and-run' accidents. When these occur, if neither the owner nor the driver can be identified, action may be taken against the Registrar of Motor Vehicles; any judgment secured against the Registrar is paid out of the Fund. All of these laws contain a provision limiting the amount that can be paid out of the Fund on one judgment. In Ontario, Alberta and British Columbia the limits are \$10,000 for one person, \$20,000 for two or more persons injured in one accident and \$2,000 for property damage. In Manitoba the legal limits are \$10,000, \$20,000 and \$1,000 respectively, while other provinces retain lower limits of \$5,000, \$10,000 and \$1,000. For hit-and-run accidents payments are made for personal injuries or death only.

Sources of information for provincial motor vehicle and traffic regulations:—

Newfoundland

Administration.—Deputy Minister of Public Works, St. John's.

Legislation.—The Highway Traffic Act 1951, as amended.

Prince Edward Island

Administration.—The Provincial Secretary, Charlottetown.

Legislation.—The Highway Traffic Act (R.S.P.E.I. 1951, c. 73).

Nova Scotia

Administration.—Motor Vehicle Branch, Department of Highways, Halifax.

Legislation.—The Motor Vehicle Act (1954, c. 184) as amended, and the Motor Carrier Act (R.S.N.S. 1923, c. 78) as amended.

New Brunswick

Administration.—Motor Vehicle Division, Provincial Tax Branch, Department of Provincial Secretary-Treasurer, Fredericton.

Legislation.—The Motor Vehicle Act (R.S.N.B. 1955) as amended.

Quebec

Administration.—Motor Vehicle Service, Provincial Revenue Offices, Parliament Bldgs., Quebec.

Legislation.—The Motor Vehicles Act (R.S.Q. 1941, c. 142) as amended.

Ontario

Administration.—Motor Vehicles Branch, Department of Transport, Toronto.

Legislation.—The Highway Traffic Act (R.S.O. 1950, c. 167), the Public Vehicles Act (R.S.O. 1950, c. 322) and the Public Commercial Vehicles Act (R.S.O. 1950, c. 304).

Manitoba

Administration.—Minister of Public Utilities, Winnipeg.

Legislation.—The Highway Traffic Act (R.S.M. 1954, c. 112) as amended.

Saskatchewan

Administration.—Treasury Department, Highway Traffic Board, Revenue Building, Regina.

Legislation.—The Vehicles Act, 1957.

Alberta

Administration.—Motor Vehicle Branch, Department of Highways, Edmonton.

Legislation.—The Vehicles and Highway Traffic Act (R.S.A. 1955, c. 356) as amended, The Motor Vehicles Accident Indemnity Act (R.S.A. 1955, c. 209) as amended, the Public Service Vehicles Act (R.S.A. 1955, c. 265), and Rules and Regulations.

British Columbia

Administration and Legislation.—Enforcement of the Motor Vehicle Act, the Highway Act and the Motor Carrier Act is vested in the Royal Canadian Mounted Police and the various municipal police forces. The Highway Act is administered by the Minister of Public Works, the Motor Carrier Act by the Public Utilities Commission, and the Motor Vehicle Act by the Superintendent of Motor Vehicles, Victoria, B.C.

Yukon Territory

Administration.—Commissioner of the Yukon Territory, Whitehorse, Y.T. Information regarding regulations may also be obtained from the Northern Administration and Lands Branch, Department of Northern Affairs and National Resources, Ottawa.

Legislation.—The Motor Vehicle Ordinance (1952, First Session, c. 8) as amended.

Northwest Territories

Administration.—Commissioner of the Northwest Territories. Address communications to the Director, Northern Administration and Lands Branch, Department of Northern Affairs and National Resources, Ottawa.

Legislation.—The Motor Vehicles Ordinance (1956, c. 72) as amended.

Section 2.—Highways and Roads

The populated sections of Canada are well supplied with highways and roads. Access to outlying settlements is provided to some extent by roads built by logging, pulp and paper, and mining companies, although these are not generally available for public travel. At the same time, great areas of Newfoundland, Quebec, Ontario, the Prairie Provinces, British Columbia and the Territories are very sparsely settled and are virtually without roads of any kind.

At the end of 1955, the total mileage of highway and rural roads in Canada was 455,404. This mileage includes all roads under provincial jurisdiction, federal roads including those in the National Parks and the Yukon and Northwest Territories, and local roads under municipal jurisdiction other than the milages in cities and towns. The latter are given separately under the heading "Urban Roads", p. 836.

The 1955 figures shown in Table 1 are not strictly comparable with those for the previous year. Reclassification of roads in Manitoba resulted in a considerable decrease in gravelled and earth milages. All other provinces except New Brunswick reported increases during the year. Federal roads in the ten provinces, including those in National Parks, the Federal District Commission driveways around Ottawa, and the 729-mile North West Highway System of British Columbia, measured 1,912 miles. The roads in the Yukon Territory were classed as provincial roads for the first time in 1955.

1.—Mileage of each Type of Road by Province 1955

NOTE.—The figures for Canada are the sums of the milages so reported. Urban streets are not included.

| Classification | Nfld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Yukon and N.W.T. | Canada |
|----------------------------------|--------------|--------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|------------------------|----------------|
| | miles | miles | miles | miles | miles | miles | miles | miles | miles | miles | miles | miles |
| Surfaced Road— | | | | | | | | | | | | |
| Portland cement concrete..... | — | 6 | 7 | — | 258 | 856 | 108 | — | 1 | 32 | — | 1,268 |
| Bituminous pave- ment..... | 33 | — | 45 | 1,372 | 7,565 | 5,935 | — | — | — | 2,221 | 4 | 17,175 |
| Bituminous surface..... | 97 | 367 | 1,808 | 923 | 1,172 | 4,724 | 1,701 | 1,524 | 2,323 | 1,082 | — | 15,721 |
| Gravel and crushed stone... | 2,140 | 1,412 | 7,447 | 10,529 | 22,441 | 52,858 | 2,997 | 24,389 | 30,148 | 9,935 | 1,630 | 165,926 |
| Non-surfaced Road— | | | | | | | | | | | | |
| Improved earth.. | 460 | 1,411 | { 2,922 } | | 220 | 11,941 | 10,250 | { 15,593 } | | 26,767 | 9,159 | 415 |
| Other earth roads | 3,940 | | { 3,029 } | | | | | { 17 } | | | | |
| Totals..... | 6,670 | 3,196 | 15,258 | 13,044 | 43,377 | 74,623 | 20,416 | 166,487 | 86,122 | 23,948 | 2,263 | 455,404 |

¹ Includes milages of gravelled roads; details not available.

Expenditures on roads and highways reached a new high in the year ended Mar. 31, 1956, at \$513,852,270. This figure was nearly 20 p.c. higher than the expenditure in the previous fiscal year. Construction work was up 28 p.c. and maintenance 5 p.c. Table 2 shows the expenditures by provinces and the federal-provincial-municipal distribution for the fiscal years ended 1952-56.

2.—Construction, Maintenance and General Expenditure on Rural Roads, Bridges and Ferries by Province, Years Ended Mar. 31, 1952-56

| Item and Province or Territory | 1952 | 1953 | 1954 | 1955 | 1956 ^p |
|--|--------------------|--------------------|--------------------|--------------------|--------------------|
| | \$ | \$ | \$ | \$ | \$ |
| Construction¹..... | 192,810,362 | 244,614,842 | 234,334,349 | 229,087,011 | 294,343,957 |
| Newfoundland..... | 4,555,303 | 2,954,526 | 4,240,406 | 7,921,808 | 8,990,495 |
| Prince Edward Island..... | 2,130,750 | 2,221,375 | 1,788,675 | 2,795,081 | 2,911,560 |
| Nova Scotia..... | 9,267,598 | 5,744,539 | 7,584,863 | 6,190,534 | 8,615,147 |
| New Brunswick..... | 6,039,885 | 6,376,795 | 6,953,831 | 6,867,169 | 11,042,564 |
| Quebec..... | 56,995,225 | 73,769,845 | 57,945,075 | 58,153,492 | 76,403,786 |
| Ontario..... | 55,768,891 | 69,779,100 | 64,807,939 | 56,762,275 | 85,171,965 |
| Manitoba..... | 9,347,887 | 11,627,268 | 12,162,353 | 12,389,735 | 12,474,617 |
| Saskatchewan..... | 9,065,930 | 13,325,620 | 13,860,596 | 13,390,784 | 12,682,869 |
| Alberta..... | 21,301,524 | 34,211,782 | 40,105,154 | 40,240,306 | 39,800,420 |
| British Columbia..... | 16,298,760 | 23,170,263 | 23,433,190 | 22,128,045 | 33,283,542 |
| Yukon and N.W.T..... | 595,600 | 508,149 | 739,744 | 1,010,545 | 1,850,116 |
| Maintenance..... | 127,790,354 | 147,719,040 | 149,844,221 | 178,832,011 | 187,134,927 |
| Newfoundland..... | 1,646,977 | 1,893,130 | 2,267,335 | 2,696,832 | 2,932,427 |
| Prince Edward Island..... | 1,001,335 | 1,077,210 | 1,219,612 | 1,159,173 | 1,588,903 |
| Nova Scotia..... | 6,880,574 | 8,202,264 | 9,563,259 | 10,376,255 | 11,580,407 |
| New Brunswick..... | 7,083,580 | 8,618,951 | 8,235,747 | 10,281,339 | 10,855,460 |
| Quebec..... | 25,735,365 | 30,628,015 | 31,184,047 | 35,195,468 | 35,131,875 |
| Ontario..... | 49,547,029 | 58,105,684 | 52,667,538 | 57,464,175 | 60,591,398 |
| Manitoba..... | 2,097,872 | 2,251,555 | 2,648,689 | 3,314,421 | 3,642,016 |
| Saskatchewan..... | 3,857,513 | 4,503,343 | 4,939,826 | 15,517,577 | 17,159,558 |
| Alberta..... | 14,390,843 | 15,184,161 | 18,487,280 | 22,744,792 | 22,610,892 |
| British Columbia..... | 12,498,943 | 15,192,109 | 14,558,602 | 15,493,701 | 17,137,302 |
| Yukon and N.W.T..... | 3,050,323 | 2,062,618 | 4,072,286 | 4,588,278 | 3,904,689 |
| Administration and General²..... | 13,983,546 | 11,957,539 | 12,889,589 | 21,552,986 | 31,763,089 |
| Newfoundland..... | 233,871 | 230,943 | 279,402 | 347,610 | 397,452 |
| Prince Edward Island..... | 68,988 | 69,432 | 73,115 | 73,268 | 81,709 |
| Nova Scotia..... | 692,893 | 968,344 | 792,148 | 798,905 | 960,176 |
| New Brunswick..... | 242,682 | 276,312 | 307,994 | 416,716 | 498,305 |
| Quebec..... | 2,436,853 | 2,602,009 | 2,727,669 | 3,383,708 | 3,423,412 |
| Ontario..... | 4,583,869 | 4,636,933 | 5,027,809 | 10,958,835 | 21,135,457 |

For footnotes, see end of table.

2.—Construction, Maintenance and General Expenditure on Rural Roads, Bridges and Ferries by Province, Years Ended Mar. 31, 1952-56—concluded

| Item and Province or Territory | 1952 | 1953 | 1954 | 1955 | 1956 ^a |
|--|---------------------|---------------------|---------------------|--------------------|--------------------|
| | \$ | \$ | \$ | \$ | \$ |
| Administration and General²—concl. | | | | | |
| Manitoba..... | 685,479 | 738,036 | 787,645 | 801,103 | 965,426 |
| Saskatchewan..... | 282,334 | 384,262 | 433,990 | 1,251,078 | 1,506,549 |
| Alberta..... | 89,287 ³ | 86,649 ³ | 75,647 ³ | 1,259,707 | 786,560 |
| British Columbia..... | 4,353,599 | 1,654,696 | 1,971,234 | 1,805,578 | 1,506,041 |
| Yukon and N.W.T..... | 31,039 | 11,693 | 13,102 | 25,476 | 39,402 |
| Totals..... | 334,584,262 | 404,291,421 | 397,068,159 | 429,472,008 | 513,852,270 |
| Distribution of All Expenditure— | | | | | |
| Federal..... | 21,667,085 | 25,034,650 | 26,759,571 | 32,775,800 | 36,644,143 |
| Provincial..... | 287,934,225 | 350,248,566 | 341,501,941 | 355,454,863 | 435,583,891 |
| Municipal..... | 23,288,598 | 27,721,288 | 27,505,913 | 37,173,083 | 40,213,328 |
| Other..... | 1,694,354 | 1,286,917 | 1,300,734 | 4,068,262 | 1,410,908 |

¹ Includes payments from railways and contributions from the Railway Grade Crossing Fund toward elimination of grade crossings, etc., amounting to \$1,443,009 in 1951-52, \$925,580 in 1952-53, \$712,523 in 1953-54, \$1,237,237 in 1954-55 and \$1,116,876 in 1955-56.

² Includes federal administrative costs *re* Trans-Canada Highway amounting to \$282,652 in 1951-52, \$298,230 in 1952-53, \$399,834 in 1953-54, \$431,002 in 1954-55 and \$462,600 in 1955-56.

³ Federal administrative costs only.

The Trans-Canada Highway System.—The original federal-provincial agreement of 1949 for construction of the Trans-Canada Highway was given in outline, together with other data on specifications and proposed route across the participating provinces, in the 1951 Year Book, pp. 631-634. The original Act set the standards to be met: a hard-surfaced, two-lane highway, 22 to 24 feet wide with ample shoulder widths, bridge clearances and sight distances, low gradients and curvature, a maximum load capacity of nine tons for one axle, and the elimination, wherever possible, of railway grade crossings. The shortest practicable east-west route was to be designated by each province within its own borders, in agreement on terminal points with adjoining provinces. Those sections within the National Parks were to be the responsibility of the Federal Government.

Certain amendments to financial provisions and completion date were discussed at the Federal-Provincial Conference held at Ottawa in November 1955, and the Trans-Canada Highway Act was amended by Parliament in June 1956. The new Act gives authority for increasing federal expenditure from \$150,000,000 to \$250,000,000 under a formula by which the Federal Government will pay 90 p.c. of the cost of building 10 p.c. of the mileage of the Trans-Canada Highway in each province in an effort to close gaps where no road at all exists or where certain portions are below standard. The basic 50-50 financial arrangement is still in force on the remaining 90 p.c. of the mileage in each province. A revised completion date is set at Dec. 31, 1960. New federal-provincial agreements were entered into by the participating provinces during the six months following passage of the amendments.

The Provincial Government of Quebec is not a party to a federal-provincial agreement but there is a paved highway across that Province, linking the two ends of the Trans-Canada Highway route in Ontario and New Brunswick.

In the nine participating provinces the route as amended in 1956 will total 4,444 miles divided as follows: Newfoundland 554; Prince Edward Island 71; Nova Scotia 311; New Brunswick 390; Ontario 1,436; Manitoba 309; Saskatchewan 406; Alberta 282; British Columbia 568; and in the National Parks 117. Revisions in location have since altered some mileage totals. For instance, the mileage through Mount Revelstoke and Glacier National Parks in British Columbia was shortened by a decision to use the Rogers Pass route, and the decision on the location of Terra Nova, the new National Park in Newfoundland, increased the mileage for which the Federal Government is solely responsible by 63 miles. Thus the National Park mileage is altered to 143. The sum of \$10,000,000 was allocated by Parliament for construction of the Highway through the National Parks during the fiscal year ended Mar. 31, 1958.

Contractual commitments of the nine participating provinces for new construction on the Highway during the period Dec. 9, 1949, to July 15, 1957, amounted to \$345,625,243 of which the Federal Government's share, including the additional 40 p.c. under the amended Act, was \$189,317,814. Federal payments to the provinces during this period for prior, interim and new construction totalled \$109,431,701. On-site labour expended on the Highway up to Mar. 31, 1957, amounted to 5,196,607 eight-hour man-days of employment; off-site employment required for the provision of necessary material and services was estimated at 8,834,232 man-days.

In Saskatchewan, work was completed over the whole route of 406 miles, and the Highway opened and dedicated at a ceremony on Aug. 21, 1957. In provinces more handicapped by problems of terrain and construction, progress continues to be made and the work is well up to schedule. At May 31, 1957, contracts for 2,488 miles of grading had been approved and the equivalent of 2,154 miles built, contracts for base-course had been approved for 2,131 miles and the equivalent of 1,761 miles completed; paving to specified standard had been completed over a distance of 1,559 miles; 261 bridges, overpasses and other structures of over 20-foot span had been completed.

Urban Roads.*—Information on urban roads is obtained from municipalities with populations of over 1,000. The number of such cities and towns reporting in 1956 was well over twice the number reporting in 1954 (317) and the data secured was much more comprehensive.

3.—Statistics of Urban Roads, Years Ended Mar. 31, 1955 and 1956

| Item | 1955 | 1956 |
|--|-------------------|--------------------|
| Municipalities Reporting..... No. | 794 | 799 |
| Total Expenditure Reported..... \$ | 87,909,902 | 106,117,610 |
| New construction..... \$ | 36,423,626 | 45,543,596 |
| Reconstruction, repair, cleaning, sanding and snow removal..... \$ | 51,486,276 | 60,574,014 |
| Total Urban Milage..... No. | 22,027 | 22,823 |
| Rigid paving..... " | 5,796 | 6,049 |
| Flexible pavement..... " | 3,347 | 3,239 |
| Untreated gravel or earth..... " | 12,884 | 13,535 |

Section 3.—Motor Vehicles

Registration.—Automobiles were registered in Canada for the first time in 1904. Ontario was the only province to issue licences in that year. New Brunswick began registering cars in 1905; Quebec, Saskatchewan and Alberta in 1906; British Columbia in 1907; Manitoba in 1908; Nova Scotia in 1909; Prince Edward Island in 1913; and Yukon Territory in 1914.

In 1905 only 565 motor vehicles were registered in Canada but by 1915 the number had risen to 95,284 and by the end of the next decade to 724,048. With the exception of 1931-33 an annual increase was in evidence until 1941 when 1,572,784 motor vehicles were registered. The number of commercial vehicles continued to increase during the war years but a considerable decline was shown in passenger cars because of the restrictions on manufacture and the rationing of tires and gasoline. However postwar recovery was rapid and registrations have risen steadily to a 1956 total of 4,230,647, including 3,187,099 passenger cars and taxis, 995,723 trucks and miscellaneous vehicles, 12,245 buses and 35,580 motorcycles.

* Statistics are given in more detail in DBS annual report *Highway Statistics*.

4.—Motor Vehicles Registered by Province 1947-56

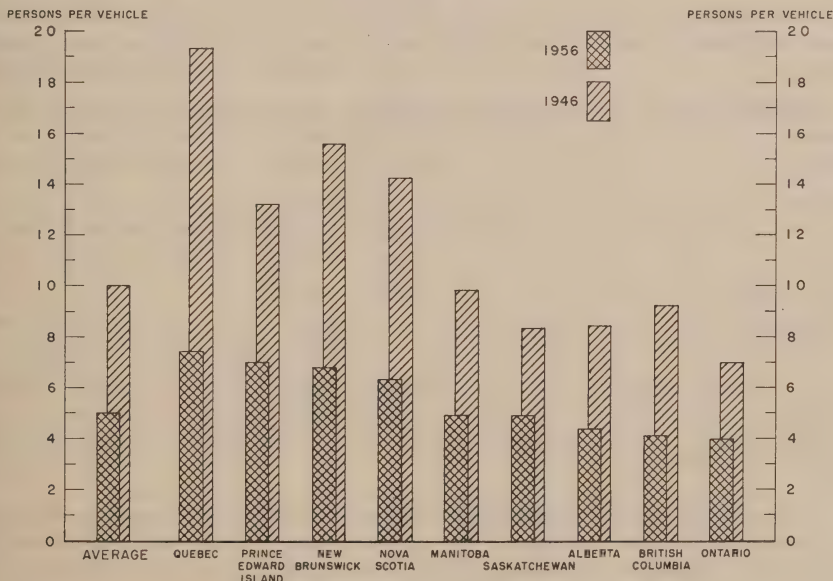
NOTE.—Registrations given here include passenger cars, trucks, buses, motorcycles, service cars, etc., but not trailers or dealer licences. Figures for 1904-35 are given in the 1937 Year Book, p. 668; for 1936-44 in the 1948-49 edition, p. 707; and for 1945-46 in the 1956 edition, p. 814.

| Year | Nfld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Total ¹ |
|-------------------------|--------|--------|---------|---------|---------|-----------|---------|---------|---------|---------|--------------------|
| | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| 1947..... | ... | 9,948 | 70,300 | 51,589 | 296,547 | 800,058 | 112,149 | 158,512 | 155,386 | 179,684 | 1,835,959 |
| 1948..... | ... | 11,290 | 76,319 | 62,366 | 335,953 | 874,933 | 128,000 | 167,515 | 173,950 | 202,126 | 2,034,943 |
| 1949..... | 13,981 | 13,211 | 83,443 | 67,280 | 384,733 | 970,137 | 139,836 | 185,027 | 200,428 | 230,008 | 2,290,628 |
| 1950..... | 16,375 | 15,383 | 94,743 | 74,415 | 433,701 | 1,104,080 | 157,788 | 199,866 | 230,624 | 270,312 | 2,600,511 |
| 1951..... | 20,058 | 16,896 | 105,262 | 83,023 | 500,729 | 1,205,098 | 171,265 | 215,450 | 259,841 | 291,417 | 2,872,420 |
| 1952..... | 23,630 | 18,717 | 114,982 | 89,839 | 574,974 | 1,291,753 | 187,881 | 237,014 | 291,469 | 321,482 | 3,155,997 |
| 1953..... | 29,576 | 20,286 | 129,564 | 93,914 | 617,855 | 1,406,119 | 203,652 | 257,504 | 318,812 | 348,830 | 3,430,672 |
| 1954..... | 34,423 | 20,848 | 133,087 | 99,058 | 674,114 | 1,489,980 | 210,471 | 267,373 | 338,541 | 371,711 | 3,644,589 |
| 1955..... | 39,766 | 22,145 | 149,841 | 106,648 | 743,682 | 1,617,853 | 222,474 | 274,950 | 356,839 | 409,343 | 3,948,652 |
| 1956 ² | 45,768 | 20,779 | 151,764 | 110,963 | 824,908 | 1,710,240 | 238,021 | 291,053 | 381,153 | 450,547 | 4,230,647 |

¹ Includes registrations in the Yukon and Northwest Territories.

² Registered farm tractors were excluded for the first time in 1956 resulting in smaller increases and even a decrease in Prince Edward Island as compared with 1955.

PERSONS PER PRIVATE AUTOMOBILE BY PROVINCE 1946 AND 1956



5.—Types of Motor Vehicles Registered by Province 1955 and 1956

| Year and Province or Territory | Passenger Cars ¹ | Commercial Cars, Trucks, etc. ^{2,3} | Buses | Motor-cycles | Total |
|--------------------------------|-----------------------------|--|---------------|---------------|------------------|
| | No. | No. | No. | No. | No. |
| 1955 | | | | | |
| Newfoundland..... | 27,474 | 11,851 | 155 | 286 | 39,766 |
| Prince Edward Island..... | 13,436 | 8,566 | 10 | 133 | 22,145 |
| Nova Scotia..... | 106,763 | 41,945 | ⁴ | 1,133 | 149,841 |
| New Brunswick..... | 74,602 | 30,639 | 445 | 962 | 106,648 |
| Quebec..... | 549,129 | 177,686 | 2,912 | 13,955 | 743,682 |
| Ontario..... | 1,292,133 | 309,294 | 4,105 | 12,321 | 1,617,853 |
| Manitoba..... | 162,362 | 58,549 | 201 | 1,362 | 222,474 |
| Saskatchewan..... | 166,864 | 107,281 | 128 | 677 | 274,950 |
| Alberta..... | 236,395 | 116,078 | 2,717 | 1,649 | 356,839 |
| British Columbia..... | 303,481 | 102,097 | ⁴ | 3,765 | 409,343 |
| Yukon and N.W.T..... | 2,778 | 2,302 | 21 | 10 | 5,111 |
| Canada, 1955..... | 2,935,417 | 966,288 | 10,694 | 36,253 | 3,948,652 |
| 1956 | | | | | |
| Newfoundland..... | 32,555 | 12,758 | 157 | 298 | 45,768 |
| Prince Edward Island..... | 14,163 | 6,457 | 11 | 148 | 20,779 |
| Nova Scotia..... | 111,141 | 38,695 | 756 | 1,172 | 151,764 |
| New Brunswick..... | 81,390 | 28,194 | 472 | 907 | 110,963 |
| Quebec..... | 627,993 | 180,217 | 3,284 | 13,414 | 824,908 |
| Ontario..... | 1,365,874 | 328,434 | 4,280 | 11,652 | 1,710,240 |
| Manitoba..... | 173,035 | 63,040 | 199 | 1,747 | 238,021 |
| Saskatchewan..... | 179,986 | 110,291 | 125 | 651 | 291,053 |
| Alberta..... | 256,177 | 120,190 | 2,937 | 1,849 | 381,153 |
| British Columbia..... | 341,650 | 105,173 | ⁴ | 3,724 | 450,547 |
| Yukon and N.W.T..... | 3,135 | 2,274 | 24 | 18 | 5,451 |
| Canada, 1956..... | 3,187,099 | 995,723 | 12,245 | 35,580 | 4,230,647 |

¹ Includes taxis. ² Includes service cars, tractors, etc.

³ Registered farm tractors were excluded in 1956.

⁴ Included with trucks.

Apparent Supply of Automobiles.—The apparent supply of automobiles in Canada in any year is computed by deducting the number exported from the sum of the production and imports. Statistics regarding retail sales and the financing of motor vehicle sales in Canada are given in Chapter XXI on Domestic Trade.

6.—Apparent Supply of New Automobiles 1947-56

| Year | Cars Made for Sale in Canada ¹ | | Car Imports | | Re-exports of Imported Cars | | Apparent Supply | |
|-----------|---|--------------------------|-------------|-------------|-----------------------------|-------------|-----------------|--------------------------|
| | Pas-senger | Com-mercial ² | Pas-senger | Com-mercial | Pas-senger | Com-mercial | Pas-senger | Com-mercial ² |
| | No. | No. | No. | No. | No. | No. | No. | No. |
| 1947..... | 128,243 | 63,152 | 35,570 | 7,293 | 26 | 4 | 163,787 | 70,441 |
| 1948..... | 135,316 | 73,582 | 17,037 | 3,575 | 17 | 4 | 152,336 | 77,153 |
| 1949..... | 177,060 | 85,715 | 35,293 | 3,404 | 32 | 8 | 212,321 | 89,111 |
| 1950..... | 259,481 | 96,826 | 81,722 | 6,806 | 62 | 20 | 341,141 | 103,612 |
| 1951..... | 243,155 | 105,547 | 42,631 | 5,703 | 2,866 | 11 | 282,920 | 111,239 |
| 1952..... | 245,443 | 112,485 | 35,665 | 4,328 | 999 | 11 | 280,109 | 116,802 |
| 1953..... | 319,937 | 100,772 | 53,179 | 5,296 | 44 | 3 | 373,072 | 106,065 |
| 1954..... | 267,452 | 59,666 | 38,509 | 4,973 | 84 | 25 | 305,877 | 64,614 |
| 1955..... | 349,306 | 69,186 | 48,546 | 9,403 | 22 | 24 | 397,830 | 78,565 |
| 1956..... | 349,809 | 85,094 | 76,200 | 13,032 | 45 | 42 | 425,964 | 98,084 |

¹ Factory shipments since 1952.² Includes Armed Forces vehicles.

Provincial Government Revenue from Motor Vehicles.—The taxation of motor vehicles, garages, drivers, chauffeurs, etc., is an important source of provincial government income. In every province licences or permits duly issued by the provincial authorities are required for motor vehicles of all kinds, trailers, operators or drivers, paid chauffeurs, dealers, garages and gasoline and service stations. In 1956 the average cost per motor vehicle for operating taxes and licences was about \$90. Lower gasoline tax rates in the five provinces from Ontario westward brought the averages for those provinces below the national average. Present gasoline tax rates range from nine cents per gallon in Manitoba to 17 cents in Newfoundland and Nova Scotia.

The more important sources from which provincial revenue from motor vehicles is derived are shown in Table 7. Federal Government revenue from import duties, excise and sales taxes are given in Chapter XXIV on Public Finance.

7.—Provincial Revenue from the Registration and Operation of Motor Vehicles, Year Ended Mar. 31, 1956

| Province or Territory | Passenger Automobile Licences | Truck, Bus, Trailer and other Vehicle Licences | Motorcycle Licences | Chauffeur, Driver and Dealer Licences | Public Service Vehicle Tax | Gasoline Tax | Total ¹ |
|------------------------|-------------------------------|--|---------------------|---------------------------------------|----------------------------|--------------------|--------------------|
| | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| Newfoundland..... | 477,112 | 558,116 | 2,737 | 146,992 | 2 | 3,362,266 | 4,687,986 |
| Prince Edward Island.. | 230,806 | 232,811 | 497 | 33,050 | 3,734 | 1,372,384 | 1,882,489 |
| Nova Scotia..... | 1,934,429 | 1,902,449 | 3 | 326,013 | 41,928 | 12,381,334 | 16,829,419 |
| New Brunswick..... | 1,494,386 | 1,831,295 | 5,587 | 254,737 | 3 | 9,922,358 | 13,635,159 |
| Quebec..... | 12,699,671 | 11,608,469 | 53,029 | 2,337,690 | 823,322 | 67,970,367 | 96,191,574 |
| Ontario..... | 17,681,927 | 18,614,365 | 27,392 | 2,281,316 | 1,915,219 | 103,789,054 | 145,884,660 |
| Manitoba..... | 2,509,040 | 1,526,322 | 7,149 | 611,604 | 541,138 | 9,315,394 | 14,727,381 |
| Saskatchewan..... | 2,351,016 | 2,429,149 | 3,489 | 392,484 | 217,526 | 14,662,983 | 20,522,501 |
| Alberta..... | 3,351,573 | 5,697,753 | 4 | 558,145 | 164,830 | 20,256,251 | 30,517,983 |
| British Columbia..... | 5,926,930 | 3,672,604 | 16,520 | 969,996 | 463,529 | 21,118,484 | 32,664,870 |
| Yukon and N.W.T..... | 35,754 | 36,439 | 28 | 17,824 | 30,330 | 256,942 | 383,279 |
| Totals..... | 48,692,644 | 48,109,772 | 116,428 | 7,929,851 | 4,201,556 | 264,407,817 | 377,927,301 |

¹ Includes other items not shown such as transfer of motor vehicles, garage and service station licences, and fines for infractions of motor vehicle laws. ² Included with trucks. ³ Included with other motor vehicles. ⁴ Included with passenger automobiles.

Sales of Gasoline.—'Gasoline', under the provincial Acts, is considered to include all petroleum oils used as fuel in internal combustion engines, as well as propane gas used in motor buses.

8.—Sales of Gasoline by Province 1952-56

| Province or Territory | 1952 | 1953 | 1954 | 1955 | 1956 |
|---------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| | gal. | gal. | gal. | gal. | gal. |
| Newfoundland..... | 13,820,200 | 16,504,200 | 18,818,942 | 21,534,679 | 24,242,239 |
| Prince Edward Island..... | 10,832,264 | 12,388,599 | 12,782,733 | 13,751,121 | 14,325,068 |
| Nova Scotia..... | 69,174,476 | 75,772,354 | 80,518,367 | 86,499,272 | 91,133,927 |
| New Brunswick..... | 67,361,022 | 77,108,360 | 78,065,848 | 75,076,615 | 81,177,965 |
| Quebec..... | 430,671,283 | 456,460,906 | 484,868,758 | 545,070,050 | 611,828,946 |
| Ontario..... | 844,162,648 | 928,515,728 | 991,397,120 | 1,099,962,376 | 1,198,568,793 |
| Manitoba..... | 148,274,072 | 159,554,101 | 162,578,296 | 188,284,222 | 200,314,027 |
| Saskatchewan..... | 238,663,980 | 250,698,689 | 244,370,743 | 262,201,711 | 269,661,903 |
| Alberta..... | 329,255,018 | 361,665,017 | 388,929,549 | 353,924,513 | 383,609,186 |
| British Columbia..... | 191,444,793 | 210,028,255 | 235,670,948 | 256,166,048 | 298,957,204 |
| Yukon..... | .. | .. | .. | .. | 4,245,811 |
| Totals, Gross Sales..... | 2,343,659,756 | 2,548,696,209 | 2,698,001,304 | 2,902,470,607 | 3,178,065,069 |
| Refunds and exemptions..... | 625,547,937 | 646,181,392 | 677,096,843 | 675,490,362 | 721,076,713 |
| Totals, Net Sales..... | 1,718,111,819 | 1,902,514,817 | 2,020,904,461 | 2,226,980,245 | 2,456,988,356 |

Motor Carriers.*—Statistics of the 'for hire' segment of the motor carrier industry have been collected since 1941. The continued co-operation of provincial authorities, trucking associations and other interested parties has resulted in gradual improvement in the statistical accuracy of these data but much still remains to be done. As little capital is required to enter the trucking business, many marginal operators are associated with the industry, and the large turnover and numerous changes of operators each year creates many problems in the collection of statistics. The 2,938 firms from which usable returns were secured in 1955 reported gross revenue of \$283,513,579 compared with 2,784 firms reporting \$247,699,065 revenue in 1954.

The motor carrier industry is divided into freight and passenger sections, each of which is subdivided into two groups according to gross annual revenue: (1) those having annual revenues of \$20,000 or over; (2) those having revenues under \$20,000. In the passenger carrier section, all city passenger carriers are included under "City Service" while intercity and rural passenger operators are divided into the two revenue groups.

These statistics do not include motor bus operations of street railways except where such services are entirely motorized. Motor bus data for street railways are included under electric railway systems (*see* p. 829). Excluded are operations of vehicle fleets owned and

* Statistics are given in more detail in DBS annual report *Motor Carriers, Freight-Passenger*.

operated by private companies where the vehicles are not available for public service, such as dairies, bakeries, departmental and grocery stores, oil and gasoline distributors and breweries. Operators under almost exclusive contract, such as those engaged in the collection of milk or co-operatively owned vehicles, are also excluded, as are school buses owned and operated by school boards or municipalities or under contract.

9.—Summary Statistics of Freight and Passenger Motor Carriers 1952-55

| Item | 1952 | 1953 | 1954 | 1955 |
|--|--------------------|--------------------|--------------------|--------------------|
| Carriers Reporting..... No. | 4,040 | 3,483 | 2,784 | 2,938 |
| Passenger..... " | 425 | 419 | 373 | 257 |
| Freight..... " | 3,615 | 3,064 | 2,411 | 2,681 |
| Investments—land, buildings, equipment, etc. \$ | 177,112,456 | 202,362,522 | 196,417,419 | 220,195,640 |
| Revenue..... \$ | 233,973,179 | 261,422,465 | 247,699,065 | 283,513,579 |
| Freight..... \$ | 155,364,477 | 181,985,420 | 178,405,949 | 213,211,233 |
| Passenger—intercity and rural..... \$ | 49,922,877 | 49,465,440 | 40,655,002 | 42,934,180 |
| City..... \$ | 20,483,925 | 22,470,589 | 18,206,055 | 16,425,701 |
| Miscellaneous..... \$ | 8,201,900 | 7,501,016 | 10,432,059 | 10,942,465 |
| Operating Expenses..... \$ | 215,111,719 | 242,239,838 | 233,579,561 | 263,698,912 |
| Maintenance..... \$ | 45,130,418 | 45,228,846 | 43,996,550 | 50,221,446 |
| Wages and bonuses of drivers and helpers..... \$ | 54,709,002 | 62,896,153 | 58,666,479 | 67,317,160 |
| Other transportation expenses..... \$ | 32,556,087 | 33,695,077 | 32,579,920 | 37,547,254 |
| Operating taxes and licences..... \$ | 14,905,120 | 17,140,078 | 17,270,469 | 19,822,395 |
| Other operating expenses..... \$ | 67,811,092 | 83,279,684 | 81,066,143 | 88,790,657 |
| Net Operating Revenue..... \$ | 18,861,460 | 19,182,627 | 14,119,504 | 19,814,667 |
| Traffic and Employees— | | | | |
| Passengers— | | | | |
| Regular routes— | | | | |
| Intercity and rural..... No. | 99,465,124 | 86,953,101 | 76,075,815 | 74,686,852 |
| City..... " | 235,573,603 | 244,746,354 | 191,479,770 | 167,105,841 |
| Special and chartered service— | | | | |
| Intercity and rural..... " | 4,704,306 | 4,329,785 | 5,292,924 | 5,366,413 |
| City..... " | 356,945 | 153,932 | 306,867 | 426,928 |
| Bus miles— | | | | |
| Regular routes— | | | | |
| Intercity and rural..... No. | 110,158,784 | 111,862,184 | 100,899,431 | 95,800,035 |
| City..... " | 42,001,905 | 44,688,077 | 39,237,723 | 33,002,182 |
| Special and chartered service— | | | | |
| Intercity and rural..... " | 4,541,013 | 4,594,072 | 5,305,331 | 5,604,666 |
| City..... " | 171,502 | 428,437 | 371,368 | 356,131 |
| Freight carried—intercity and rural ¹ ton | 19,095,669 | 22,494,110 | 26,844,775 | 24,056,326 |
| Gasoline consumed..... gal. | 77,770,299 | 85,601,862 | 78,250,806 | 80,274,800 |
| Diesel oil consumed..... " | 4,348,051 | 7,460,331 | 11,917,950 | 14,180,777 |
| Working proprietors..... No. | 3,835 | 3,195 | 2,404 | 2,609 |
| Allowances of working proprietors..... \$ | 8,641,403 | 8,161,206 | 5,844,546 | 3,093,937 |
| Employees— | | | | |
| July 15..... No. | 31,417 | 32,888 | 29,706 | 31,984 |
| December 15..... " | 30,866 | 31,814 | 29,010 | 31,568 |
| Total salaries and wages..... \$ | 84,919,511 | 95,112,580 | 93,314,372 | 105,095,549 |
| Equipment— | | | | |
| Trucks..... No. | 11,649 | 10,876 | 8,564 | 8,932 |
| Tractors..... " | 4,791 | 6,108 | 6,351 | 7,350 |
| Trailers and semi-trailers..... " | 8,613 | 9,826 | 8,945 | 10,336 |
| Buses..... " | 4,683 | 4,725 | 4,298 | 3,745 |

¹ Incomplete coverage.

10.—Statistics of Freight and Passenger Motor Carriers classified by Revenue Group 1954 and 1955

| Item | Freight Carriers | | Passenger Carriers | | |
|---|------------------------------------|----------------------------------|--------------------|---|---|
| | Annual Revenue of \$20,000 or Over | Annual Revenue of Under \$20,000 | City Service | Intercity Annual Revenue of \$20,000 or Over | Rural Annual Revenue of Under \$20,000 |
| 1954 | | | | | |
| Carriers Reporting No. | 848 | 1,563 | 75 | 124 | 174 |
| Cost of Land, Buildings, Equipment, etc \$ | 106,528,652 | 9,908,908 | 20,204,681 | 57,910,578 | 1,864,600 |
| Revenue \$ | 170,066,834 | 11,467,225 | 17,903,428 | 46,835,787 | 1,425,791 |
| Passenger..... \$ | 125,241 | — | 17,440,449 | 43,502,300 | 1,090,186 |
| Mail..... \$ | 142,230 | — | 19,704 | 1,232,415 | — |
| Freight..... \$ | 166,361,018 | 11,141,137 | 76,509 | 284,419 | 57,637 |
| Other..... \$ | 3,438,345 | 326,088 | 366,766 | 1,816,653 | 277,968 |
| Operating Expenses \$ | 160,246,794 | 8,836,750 | 17,615,528 | 45,598,160 | 1,282,329 |
| Net Operating Revenue \$ | 9,820,040 | 2,630,475 | 287,900 | 1,237,627 | 143,462 |
| Traffic— | | | | | |
| Passengers..... No. | 580,086 | 6,916 | 176,319,079 | 92,993,618 | 3,255,677 |
| Freight carried ¹ ton | 22,690,245 | 4,058,896 | 67,042 | 27,900 | 692 |
| Bus miles..... No. | 833,717 | 156,869 | 36,863,520 | 102,849,636 | 5,167,311 |
| Gasoline consumed..... gal. | 51,939,993 | 5,013,527 | 6,369,669 | 14,253,895 | 673,722 |
| Diesel oil consumed..... " | 7,773,547 | 27,885 | 1,068,385 | 3,048,133 | — |
| Working proprietors..... No. | 624 | 1,553 | 19 | 36 | 172 |
| Allowances of working proprietors. \$ | 2,549,348 | 2,862,309 | 52,897 | 128,775 | 251,217 |
| 1955 | | | | | |
| Carriers Reporting No. | 912 | 1,769 | 56 | 114 | 87 |
| Cost of Land, Buildings, Equipment, etc \$ | 132,657,080 | 11,619,187 | 18,427,949 | 56,455,540 | 1,035,884 |
| Revenue \$ | 206,266,011 | 13,759,511 | 15,802,389 | 46,769,984 | 915,684 |
| Passenger..... \$ | 2,651,896 | 2 | 15,316,266 | 43,579,922 | 749,208 |
| Mail..... \$ | 604,911 | 2 | 57,671 | 1,463,377 | 2 |
| Freight..... \$ | 199,515,522 | 13,137,153 | 257,384 | 296,888 | 4,286 |
| Other..... \$ | 3,493,682 | 622,358 | 171,068 | 1,429,797 | 162,190 |
| Operating Expenses \$ | 192,717,780 | 10,771,992 | 15,252,665 | 44,131,888 | 824,587 |
| Net Operating Revenue \$ | 13,548,231 | 2,987,519 | 549,724 | 2,638,096 | 91,097 |
| Traffic— | | | | | |
| Passengers..... No. | 414,070 | .. | 155,014,247 | 90,349,539 | 1,808,178 |
| Freight carried ¹ ton | 23,995,693 | .. | — | 60,500 | 133 |
| Bus miles..... No. | 499,738 | .. | 31,583,462 | 98,963,082 | 3,716,732 |
| Gasoline consumed..... gal. | 61,945,737 | .. | 5,190,194 | 12,704,186 | 434,683 |
| Diesel oil consumed..... " | 8,740,265 | .. | 1,192,321 | 4,248,191 | — |
| Working proprietors..... No. | 655 | .. | 15 | 32 | 85 |
| Allowances of working proprietors. \$ | 2,778,532 | .. | 34,361 | 174,083 | 141,322 |

¹ Incomplete coverage.² Included with "Other".

Motor Vehicle Accidents.—Motorists are required by law to report accidents but complete statistics of these accidents are not available for all provinces. Statistics on all deaths from motor vehicle accidents are shown in Table 11. A direct comparison of such statistics between the provinces is of little value because of differences in size, population, motor vehicle density, etc., but, to put them on somewhat the same basis, the average number of deaths per 10,000 registered motor vehicles has been tabulated. These data still give no weight to differences in use of motor vehicles, variations in climate, road conditions, tourist cars, etc., all of which are factors in accidents.

Data presented in Table 12 relate to traffic accidents only and consequently may not be compared with Table 11 which includes details of fatalities occurring elsewhere than on public streets or roads.

11.—Deaths Resulting from Motor Vehicle Traffic and Non-traffic Accidents by Province 1947-56

NOTE.—Figures for 1926-35 will be found in the 1941 Year Book, p. 578; for 1936-44 in the 1948-49 edition, pp. 712-713; and for 1945-46 in the 1956 Year Book, pp. 819-820.

| Year | Nfld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Total |
|---|-------|--------|-------|-------|-------|-------|------|-------|-------|-------|-------|
| DEATHS BY PLACE OF OCCURRENCE | | | | | | | | | | | |
| | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| 1947..... | ... | 15 | 83 | 104 | 476 | 753 | 77 | 51 | 103 | 207 | 1,869 |
| 1948..... | ... | 5 | 96 | 118 | 599 | 782 | 81 | 87 | 125 | 193 | 2,086 |
| 1949..... | ... | 11 | 102 | 96 | 645 | 873 | 105 | 85 | 172 | 176 | 2,285 |
| 1950..... | 18 | 7 | 94 | 103 | 682 | 850 | 75 | 91 | 162 | 188 | 2,270 |
| 1951..... | 26 | 20 | 103 | 122 | 818 | 991 | 102 | 93 | 184 | 227 | 2,686 |
| 1952..... | 25 | 26 | 115 | 139 | 931 | 1,067 | 112 | 131 | 188 | 223 | 2,957 |
| 1953..... | 28 | 14 | 133 | 124 | 959 | 1,119 | 111 | 153 | 261 | 219 | 3,121 |
| 1954..... | 33 | 14 | 149 | 131 | 769 | 1,096 | 132 | 86 | 215 | 232 | 2,857 |
| 1955..... | 47 | 18 | 121 | 147 | 894 | 1,177 | 104 | 133 | 203 | 235 | 3,079 |
| 1956..... | 46 | 17 | 150 | 150 | 1,057 | 1,245 | 160 | 138 | 269 | 312 | 3,544 |
| DEATHS PER 10,000 REGISTERED MOTOR VEHICLES | | | | | | | | | | | |
| | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| 1947..... | ... | 15.08 | 11.81 | 20.16 | 16.05 | 9.41 | 6.87 | 3.22 | 6.63 | 11.52 | 10.17 |
| 1948..... | ... | 4.43 | 12.58 | 18.92 | 17.83 | 8.94 | 6.33 | 5.19 | 7.19 | 9.55 | 10.25 |
| 1949..... | ... | 8.33 | 12.22 | 14.27 | 16.76 | 9.00 | 7.51 | 4.59 | 8.58 | 7.65 | 9.89 |
| 1950..... | 10.99 | 4.55 | 9.92 | 13.84 | 15.73 | 7.70 | 4.75 | 4.55 | 7.02 | 6.95 | 8.74 |
| 1951..... | 12.96 | 11.84 | 9.78 | 14.69 | 16.34 | 8.22 | 5.96 | 4.32 | 7.08 | 7.79 | 9.36 |
| 1952..... | 10.58 | 13.89 | 10.00 | 15.47 | 16.19 | 8.26 | 5.96 | 5.53 | 6.45 | 6.94 | 9.37 |
| 1953..... | 9.47 | 6.90 | 10.26 | 13.20 | 15.52 | 7.96 | 5.45 | 5.94 | 8.19 | 6.28 | 9.10 |
| 1954..... | 9.59 | 6.71 | 11.19 | 13.22 | 11.41 | 7.35 | 6.27 | 3.22 | 6.35 | 6.24 | 7.84 |
| 1955..... | 11.82 | 8.13 | 8.15 | 13.78 | 12.02 | 7.28 | 4.67 | 4.84 | 5.69 | 5.74 | 7.81 |
| 1956..... | 10.05 | 8.18 | 9.88 | 13.52 | 12.81 | 7.28 | 6.72 | 4.74 | 7.06 | 6.92 | 8.38 |

12.—Motor Vehicle Traffic Accidents by Province 1955 and 1956

| Item | Nfld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Yukon and N.W.T. | Total |
|---|-------|--------|--------|-------|------|--------|--------|-------|--------|--------|------------------------|---------|
| | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| 1955 | | | | | | | | | | | | |
| Accidents Reported | 2,266 | 828 | 10,876 | 6,169 | .. | 63,219 | 12,960 | 9,048 | 17,041 | 22,030 | 409 | 144,846 |
| Fatal— | | | | | | | | | | | | |
| Resulting in death of one or more persons..... | 38 | 12 | 116 | 123 | .. | 971 | 88 | 110 | 170 | 194 | 3 | 1,825 |
| Non-fatal— | | | | | | | | | | | | |
| Resulting in injury to one or more persons..... | 430 | 151 | 1,954 | 1,429 | .. | 17,905 | 2,107 | 1,864 | 2,775 | 5,532 | 82 | 34,229 |
| Resulting in property damage only ¹ | 1,798 | 665 | 8,806 | 4,617 | .. | 44,343 | 10,765 | 7,074 | 14,096 | 16,304 | 324 | 108,792 |
| Persons Killed | 46 | 16 | 123 | 137 | .. | 1,111 | 100 | 125 | 197 | 225 | 4 | 2,084 |
| Drivers | 15 | 4 | 26 | 31 | .. | 373 | 37 | 47 | 76 | 81 | 1 | 691 |
| Passengers..... | 14 | 8 | 43 | 40 | .. | 352 | 40 | 50 | 71 | 79 | 2 | 699 |
| Pedestrians..... | 15 | 3 | 53 | 61 | .. | 334 | 21 | 17 | 41 | 55 | 1 | 601 |
| Bicyclists..... | 1 | 1 | 1 | .. | .. | 26 | .. | 2 | 1 | 5 | — | 72 |
| Motorcyclists and pas- sengers..... | — | — | — | 3 | .. | 23 | 1 | — | 3 | 5 | — | 72 |
| Others..... | 1 | — | — | 2 | .. | 3 | 1 | 9 | 5 | — | — | 21 |
| Persons Injured | 538 | 188 | 2,611 | 1,822 | .. | 26,246 | 2,973 | 2,723 | 4,335 | 8,263 | 129 | 49,828 |
| Drivers..... | 113 | 63 | 726 | 554 | .. | 8,236 | 897 | 993 | 1,462 | 2,498 | 44 | 15,586 |
| Passengers..... | 177 | 93 | 1,079 | 769 | .. | 11,449 | 1,429 | 1,381 | 2,109 | 4,232 | 80 | 22,798 |
| Pedestrians..... | 218 | 27 | 722 | 412 | .. | 4,871 | 497 | 244 | 573 | 1,043 | 4 | 8,611 |
| Bicyclists..... | 17 | 2 | 82 | 76 | .. | 1,007 | .. | 65 | 107 | 317 | — | 2,699 |
| Motorcyclists and pas- sengers..... | 3 | 1 | 2 | .. | .. | 631 | 140 | 24 | 70 | 154 | 1 | 2,699 |
| Others..... | 10 | 2 | — | 11 | .. | 52 | 10 | 16 | 14 | 19 | — | 134 |
| Property Damage Caused ¹ \$'000 | 830 | 285 | 2,649 | 2,203 | .. | 26,535 | .. | 3,194 | 6,053 | 8,653 | 238 | .. |

For footnote, see end of table, p. 841.

12.—Motor Vehicle Traffic Accidents by Province 1955 and 1956—concluded

| Item | Nfld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Yukon and N.W.T. | Total |
|---|---------------------|------------|--------------|--------------|---------------|---------------|--------------|---------------|---------------|---------------|------------------------|---------------------------|
| | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| 1956 | | | | | | | | | | | | |
| Accidents Reported..... | 2,969 | 734 | 9,410 | 5,689 | .. | 71,399 | 9,989 | 10,437 | 19,060 | 24,905 | 441 | 155,033 |
| Fatal— | | | | | | | | | | | | |
| Resulting in death of one or more persons..... | 41 | 15 | 138 | 132 | 705 | 1,008 | 110 | 106 | 203 | 272 | 6 | 2,736 ² |
| Non-fatal— | | | | | | | | | | | | |
| Resulting in injury to one or more persons..... | 592 | 180 | 1,785 | 1,467 | 12,982 | 19,358 | 2,396 | 2,216 | 3,170 | 6,386 | 78 | 50,610 ² |
| Resulting in property damage only ¹ | 2,336 | 539 | 7,487 | 4,090 | .. | 51,033 | 7,483 | 8,115 | 15,687 | 18,247 | 357 | 115,374 |
| Persons Killed..... | 43 | 16 | 152 | 151 | 803 | 1,180 | 145 | 134 | 236 | 316 | 8 | 3,184² |
| Drivers..... | 8 | 9 | 61 | 35 | .. | 422 | 53 | 42 | 97 | 105 | 4 | 836 |
| Passengers..... | 9 | 3 | 40 | 46 | .. | 387 | 47 | 53 | 90 | 104 | 2 | 781 |
| Pedestrians..... | 26 | 4 | 46 | 66 | .. | 310 | 38 | 29 | 43 | 94 | 2 | 658 |
| Bicyclists..... | — | — | 5 | .. | .. | 31 | 2 | 3 | 2 | 6 | — | .. |
| Motorcyclists and pas- sengers..... | — | — | .. | 3 | .. | 28 | 2 | — | 1 | 6 | — | 89 |
| Others..... | — | — | .. | 1 | .. | 2 | 3 | 7 | 3 | 1 | — | 17 |
| Persons Injured..... | 776 | 267 | 2,500 | 2,151 | 17,163 | 28,626 | 3,434 | 3,373 | 4,771 | 9,700 | 123 | 72,884² |
| Drivers..... | 169 | 93 | 803 | 592 | .. | 9,496 | 1,054 | 1,254 | 1,641 | 2,966 | 41 | 18,109 |
| Passengers..... | 284 | 138 | 1,034 | 982 | .. | 12,362 | 1,566 | 1,726 | 2,357 | 5,013 | 72 | 25,534 |
| Pedestrians..... | 301 | 29 | 586 | 475 | .. | 4,945 | 606 | 293 | 591 | 1,140 | 7 | 8,973 |
| Bicyclists..... | 12 | 4 | 66 | .. | .. | 1,071 | 146 | 54 | 130 | 327 | — | .. |
| Motorcyclists and pas- sengers..... | 5 | 2 | 4 | 88 | .. | 721 | 49 | 23 | 45 | 236 | 2 | 2,985 |
| Others..... | 5 | 1 | 7 | 14 | .. | 31 | 13 | 23 | 7 | 18 | 1 | 120 |
| Property Damage Caused¹..... | \$*000 1,274 | 265 | 3,006 | 2,287 | .. | 32,645 | 3,161 | 3,889 | 7,250 | 10,902 | 244 | 64,923 |

¹ As of May 1, 1956, all reported accidents are those resulting in property damage estimated at \$100 or over. Previously the minimum property damage varied in the different provinces from \$25 to \$100. ² Includes Quebec.

PART IV.—WATER TRANSPORT*

The Canada Shipping Act.—Legislation regarding all phases of shipping is consolidated in the Canada Shipping Act (R.S.C. 1952, c. 29). Under the Act and its amendments the Parliament of Canada accepts full responsibility for the regulation of Canadian shipping.

Section 1.—Shipping Facilities and Traffic

A special article on the importance of traffic using the Great Lakes-St. Lawrence Seaway appears in the 1956 Year Book, pp. 821-829.

Subsection 1.—Shipping

All waterways including canals and inland lakes and rivers are open on equal terms, except in the case of the coasting trade, to the shipping of all countries of the world so that the commerce of Canada is not dependent entirely upon Canadian shipping. However a large part of the inland and coastal traffic is carried in ships of Canadian registry.

* Information and statistics dealing with this subject have been supplied as follows: aids to navigation, canals, harbours, administrative services, and marine services by the Department of Transport and the National Harbours Board; the St. Lawrence Seaway by the St. Lawrence Seaway Authority; part of the financial statistics by the Department of Public Works; shipping subsidies by the Director of Subsidized Steamship Services, Canadian Maritime Commission; Panama Canal by the Governor of the Panama Canal Zone; other canal traffic and statistics of shipping by the Public Finance and Transportation Division, Dominion Bureau of Statistics.

Canadian Registry.—Under Part I of the Canada Shipping Act all ships in excess of 10 tons net register are required to be registered; ships of lower tonnage may be registered voluntarily, otherwise they are required to be operated under a Vessel Licence if powered by a motor of 10 h.p. or more. Sect. 6 of the Act restricts ownership to British subjects or bodies corporate established under and subject to the laws of some part of Her Majesty's Dominions and having their principal place of business in those Dominions. Under the British Commonwealth Merchant Shipping Agreement all Commonwealth ships are given the general designation 'British Ship'; and a ship that should be but is not registered is not entitled to the privileges accorded to British ships. Ships in the planning stage or in course of construction may be recorded before registry by a Registrar of Shipping.

1.—Vessels on the Canadian Shipping Registry by Province as at Dec. 31, 1954-56

NOTE.—Figures for 1935-53 are given in the corresponding table of previous Year Books beginning with the 1941 edition.

| Province or Territory | 1954 | | 1955 | | 1956 | |
|----------------------------|---------------|------------------|---------------|------------------|---------------|------------------|
| | No. | net tons | No. | net tons | No. | net tons |
| Newfoundland..... | 1,255 | 60,217 | 1,094 | 84,032 | 892 | 76,378 |
| Nova Scotia..... | 227 | 8,257 | 5,026 | 133,784 | 5,276 | 134,361 |
| Prince Edward Island..... | 4,760 | 106,240 | 320 | 14,695 | 352 | 14,442 |
| New Brunswick..... | 1,111 | 41,814 | 1,188 | 58,353 | 1,194 | 57,655 |
| Quebec..... | 1,969 | 491,161 | 2,016 | 715,607 | 2,092 | 725,886 |
| Ontario..... | 2,025 | 526,677 | 2,083 | 770,179 | 2,147 | 780,595 |
| Manitoba..... | 102 | 11,968 | 108 | 14,095 | 110 | 14,506 |
| Saskatchewan..... | 1 | 147 | — | — | — | — |
| Alberta..... | 4 | 430 | 7 | 630 | 7 | 630 |
| British Columbia..... | 5,092 | 381,560 | 5,323 | 520,282 | 5,560 | 538,119 |
| Yukon Territory..... | 16 | 3,572 | 16 | 4,413 | 16 | 4,413 |
| Northwest Territories..... | 6 | 263 | 7 | 326 | 7 | 326 |
| Totals..... | 16,568 | 1,632,306 | 17,188 | 2,316,396 | 17,653 | 2,347,311 |

Shipping Traffic.—Complete statistics of shipping traffic, comparable with those given for the railways, showing all the freight carried by water, are not available. However, there is a record of the number and tonnage of ships calling at all ports at which there are customs collectors and of cargoes of vessels trading between Canadian and foreign ports. Each vessel visiting a customs port or outport makes a statistical return which is forwarded to the Dominion Bureau of Statistics. Coastwise cargo has been reported from Jan. 1, 1952. Reports are not made for vessels of less than 10 registered net tons.

2.—Vessels Entered at Canadian Ports¹ 1946-55

NOTE.—Figures for the years ended Mar. 31, 1929-35 are given in the 1941 Year Book, p. 597; for 1936-44 in the 1948-49 edition, p. 733; and for 1945 in the 1956 Year Book, p. 830.

| Year | In Foreign Service ² | | In Coasting Service | | Totals | |
|-----------|---------------------------------|---------------------|---------------------|---------------------|---------|---------------------|
| | Vessels | Net Tons Registered | Vessels | Net Tons Registered | Vessels | Net Tons Registered |
| | No. | No. | No. | No. | No. | No. |
| 1946..... | 26,461 | 30,367,071 | 67,014 | 45,559,014 | 93,475 | 75,926,085 |
| 1947..... | 27,868 | 35,926,095 | 73,439 | 51,823,502 | 101,307 | 87,749,597 |
| 1948..... | 31,138 | 39,443,055 | 75,141 | 52,453,382 | 106,279 | 91,896,437 |
| 1949..... | 30,565 | 40,088,377 | 82,012 | 56,037,003 | 112,577 | 96,125,380 |
| 1950..... | 31,420 | 42,816,949 | 84,065 | 56,066,997 | 115,485 | 98,883,946 |
| 1951..... | 32,304 | 47,508,342 | 86,571 | 60,802,798 | 118,875 | 108,311,140 |
| 1952..... | 33,782 | 52,156,098 | 79,722 | 56,776,504 | 113,504 | 108,932,602 |
| 1953..... | 34,400 | 56,589,078 | 88,675 | 67,417,391 | 123,075 | 124,006,469 |
| 1954..... | 34,079 | 54,767,687 | 84,890 | 64,291,085 | 118,969 | 119,058,772 |
| 1955..... | 34,432 | 58,018,365 | 86,010 | 67,228,840 | 120,442 | 125,247,205 |

¹ Exclusive of passenger service.

² Sea-going and inland international.

3.—Vessels Entered at each of the Principal Canadian Ports 1955

NOTE.—Details of shipping at all ports in Canada are given in DBS publication, *Shipping Report*.

| Province and Port | In Foreign Service ¹ | | In Coasting Service | | Totals | |
|---|---------------------------------|---------------------|---------------------|---------------------|----------------|---------------------|
| | Vessels | Net Tons Registered | Vessels | Net Tons Registered | Vessels | Net Tons Registered |
| | No. | No. | No. | No. | No. | No. |
| Newfoundland² | 2,081 | 2,656,033 | 5,963 | 2,631,669 | 8,044 | 5,287,702 |
| Bell Island..... | 188 | 793,427 | 80 | 210,773 | 268 | 1,004,200 |
| Botwood..... | 70 | 199,048 | 172 | 42,370 | 242 | 241,418 |
| Corner Brook..... | 164 | 329,405 | 522 | 546,938 | 686 | 876,343 |
| Port aux Basques..... | 45 | 15,606 | 860 | 421,180 | 905 | 436,786 |
| St. John's..... | 708 | 795,433 | 1,012 | 455,859 | 1,720 | 1,251,292 |
| Prince Edward Island² | 77 | 107,707 | 208 | 133,767 | 285 | 241,474 |
| Charlottetown..... | 40 | 61,022 | 108 | 79,008 | 148 | 140,030 |
| Nova Scotia² | 4,305 | 6,907,492 | 6,580 | 3,890,286 | 10,885 | 10,797,778 |
| Digby..... | 105 | 52,209 | 322 | 491,261 | 427 | 543,470 |
| Halifax..... | 1,344 | 5,100,545 | 918 | 1,005,041 | 2,262 | 6,105,586 |
| North Sydney..... | 327 | 73,946 | 1,826 | 655,765 | 2,153 | 729,711 |
| Sydney..... | 181 | 339,001 | 832 | 1,243,091 | 1,013 | 1,582,095 |
| Yarmouth..... | 310 | 27,912 | 313 | 22,576 | 623 | 50,488 |
| New Brunswick² | 4,384 | 2,154,773 | 3,048 | 1,178,005 | 7,432 | 3,332,778 |
| Campobello..... | 212 | 4,965 | 14 | 422 | 226 | 5,387 |
| Saint John..... | 552 | 1,750,969 | 666 | 693,599 | 1,218 | 2,444,568 |
| Quebec² | 4,304 | 12,791,180 | 13,086 | 11,818,455 | 17,390 | 21,609,635 |
| Baie Comeau..... | 37 | 84,533 | 709 | 279,008 | 746 | 363,541 |
| Montreal..... | 2,130 | 5,365,459 | 3,999 | 5,036,016 | 6,129 | 10,401,475 |
| Port Alfred..... | 582 | 1,815,548 | 814 | 630,076 | 1,396 | 2,445,624 |
| Quebec..... | 719 | 2,931,582 | 2,022 | 2,497,701 | 2,741 | 5,429,283 |
| Three Rivers..... | 265 | 615,041 | 2,481 | 1,430,366 | 2,746 | 2,045,407 |
| Ontario² | 6,986 | 14,928,229 | 11,526 | 17,754,364 | 18,512 | 32,682,593 |
| Amherstburg..... | 61 | 98,107 | 66 | 36,451 | 127 | 134,558 |
| Cobourg..... | 14 | 20,474 | 66 | 65,133 | 80 | 85,607 |
| Cornwall..... | 152 | 160,299 | 333 | 398,495 | 485 | 558,794 |
| Fort William..... | 209 | 638,682 | 549 | 1,626,944 | 758 | 2,265,626 |
| Hamilton..... | 835 | 3,070,234 | 751 | 866,728 | 1,586 | 3,936,962 |
| Kingston..... | 271 | 104,362 | 779 | 902,257 | 1,050 | 1,006,619 |
| Midland..... | 53 | 139,330 | 220 | 470,338 | 273 | 609,668 |
| Port Arthur..... | 434 | 1,405,033 | 840 | 3,015,573 | 1,274 | 4,420,606 |
| Port Colborne..... | 418 | 781,717 | 633 | 1,475,819 | 1,051 | 2,257,536 |
| Port McNicoll..... | 1 | 3,048 | 63 | 238,535 | 64 | 241,583 |
| Prescott..... | 184 | 280,011 | 441 | 923,785 | 625 | 1,203,796 |
| St. Catharines..... | 55 | 102,270 | 119 | 109,153 | 174 | 211,423 |
| Sarnia..... | 435 | 808,807 | 819 | 1,532,404 | 1,254 | 2,341,211 |
| Sault Ste. Marie..... | 564 | 2,020,711 | 419 | 582,270 | 983 | 2,602,981 |
| Thorold..... | 133 | 262,299 | 381 | 597,147 | 514 | 859,446 |
| Toronto..... | 879 | 1,453,546 | 1,358 | 1,676,053 | 2,237 | 3,129,609 |
| Windsor..... | 313 | 751,803 | 395 | 566,271 | 708 | 1,318,074 |
| Manitoba (Churchill) | 38 | 145,008 | — | — | 38 | 145,008 |
| British Columbia² | 12,257 | 18,327,943 | 45,599 | 29,822,294 | 57,856 | 48,150,237 |
| Nanaimo..... | 630 | 741,227 | 4,320 | 7,288,240 | 4,950 | 8,029,467 |
| New Westminster..... | 900 | 1,674,141 | 3,143 | 1,489,286 | 4,043 | 3,163,427 |
| Ocean Falls..... | 53 | 220,344 | 675 | 595,348 | 728 | 815,692 |
| Port Alberni..... | 186 | 580,156 | 623 | 275,188 | 809 | 855,344 |
| Powell River..... | 218 | 278,902 | 3,527 | 955,335 | 3,745 | 1,264,237 |
| Prince Rupert..... | 1,114 | 420,124 | 1,449 | 590,410 | 2,563 | 1,010,534 |
| Vancouver..... | 3,447 | 6,956,054 | 24,476 | 14,007,529 | 27,923 | 20,963,583 |
| Victoria..... | 3,056 | 5,815,716 | 3,799 | 3,132,792 | 6,855 | 8,948,508 |
| Grand Totals | 34,432 | 58,018,365 | 86,010 | 67,223,840 | 120,442 | 125,247,205 |

¹ Sea-going and inland international.² Includes small ports not shown separately.

4.—Cargoes at Canadian Ports Loaded or Unloaded from Vessels in Foreign Service by Province 1953-55

| Province and Year | Loaded | Unloaded | Province, Territory and Year | Loaded | Unloaded |
|-----------------------|------------|-----------|------------------------------|-------------------|-------------------|
| | tons | tons | | tons | tons |
| Newfoundland— | | | Ontario— | | |
| 1953..... | 2,742,764 | 671,606 | 1953..... | 6,320,032 | 23,808,278 |
| 1954..... | 2,702,943 | 790,442 | 1954..... | 4,959,342 | 17,670,912 |
| 1955..... | 3,194,273 | 826,047 | 1955..... | 6,359,084 | 20,944,184 |
| Prince Edward Island— | | | Manitoba— | | |
| 1953..... | 55,173 | 27,741 | 1953..... | 322,551 | 2,784 |
| 1954..... | 51,581 | 29,021 | 1954..... | 367,511 | 4,685 |
| 1955..... | 109,272 | 47,629 | 1955..... | 388,930 | 4,161 |
| Nova Scotia— | | | British Columbia— | | |
| 1953..... | 4,138,305 | 2,115,749 | 1953..... | 8,871,878 | 3,140,263 |
| 1954..... | 4,107,616 | 1,980,140 | 1954..... | 8,810,720 | 2,115,586 |
| 1955..... | 5,208,677 | 2,362,610 | 1955..... | 8,423,651 | 1,885,991 |
| New Brunswick— | | | Yukon and N.W.T.— | | |
| 1953..... | 1,643,060 | 636,729 | 1953..... | — | 3 |
| 1954..... | 1,334,504 | 741,042 | 1954..... | — | — |
| 1955..... | 2,010,348 | 850,620 | 1955..... | — | — |
| Quebec— | | | Totals— | | |
| 1953..... | 8,108,442 | 8,288,724 | 1953..... | 32,202,205 | 38,691,877 |
| 1954..... | 8,396,138 | 8,942,338 | 1954..... | 30,730,355 | 32,274,166 |
| 1955..... | 13,808,479 | 8,959,540 | 1955..... | 39,502,714 | 35,880,782 |

Subsection 2.—Harbours

Water transportation cannot be studied with any degree of completeness without taking into consideration the co-ordination of land and water transportation at many of the ports. Facilities provided to enable interchange movements include the necessary docks and wharves, some for passenger traffic but most of them for freight, warehouses for the handling of general cargo, and special equipment for such bulk freight as lumber, coal, oil and grain. Facilities may include cold storage warehouses, harbour railway and switching connections, grain elevators, coal bunkers, oil storage tanks and, in the chief harbours, dry dock accommodation.

Eight of the principal harbours of Canada are administered by the National Harbours Board. Seven other harbours come under the supervision of the Department of Transport and are administered by commissions that include municipal as well as Federal Government appointees. In addition, there are about 300 public harbours that are under the direct supervision of the Department of Transport. These harbours are administered under rules and regulations approved by the Governor General in Council. Harbour masters have been appointed by the Minister of Transport for 131 of these harbours, their remuneration being paid from fees levied on vessels under the terms of the Canada Shipping Act.

At most ports, in addition to the harbour facilities operated by the National Harbours Board or other operating commission, there are dock and handling facilities owned by private companies such as railway, pulp and paper, oil and sugar industries. At a number of ports there are also dry docks; these are dealt with separately at p. 851.

5.—Facilities of the Six Principal Harbours as at Dec. 31, 1956

NOTE.—The facilities at these ports include those under the control of other agencies as well as those of the National Harbours Board.

| Item | Halifax | Saint John | Quebec | Three Rivers | Montreal | Vancouver |
|---|-------------|------------|-------------|------------------------|---------------|-------------|
| Minimum depth of approach channel..... ft. | 51 | 30 | 35 | 35 | 35 | 40 |
| Harbour railway..... miles | 31 | 63 | 23 | 5 | 62 | 75 |
| Piers, wharves, jetties, etc.... No. | 88 | 32 | 41 | 19 | 113 | 102 |
| Length of berthing..... ft. | 35,445 | 18,710 | 33,650 | 8,690 | 53,850 | 31,440 |
| Transit-shed floor space.....sq. ft. | 1,401,942 | 1,000,000 | 659,600 | 255,840 | 2,564,467 | 1,450,600 |
| Cold storage warehouse capacity.....cu. ft. | 1,719,000 | 820,000 | 500,000 | — | 2,909,200 | 3,031,417 |
| Grain Elevators— | | | | | | |
| Capacity..... bu. | 4,152,500 | 3,000,000 | 4,000,000 | 7,500,000 ¹ | 15,162,000 | 21,000,000 |
| Loading rate.....bu. per hr. | 90,000 | 150,000 | 90,000 | 40,000 | 500,000 | 320,000 |
| Floating crane capacity..... tons | 80 | 65 | 75 | — | 75 | 85 |
| Coal dock storage capacity.... " | 57,400 | — | 215,000 | 300,000 | 1,340,000 | — |
| Oil tank storage capacity..... gal. | 175,344,865 | 27,000,000 | 130,826,000 | 1,410,000 | 1,059,750,000 | 234,589,277 |

¹ Includes a 3,000,000-bu. grain-storage shed connected with the elevator.

National Harbours Board.—The National Harbours Board, a Crown corporation established in 1936, is charged with the administration and operation of the following properties: port facilities such as wharves and piers, transit sheds, grain elevators, cold storage warehouses, terminal railways, etc., at the harbours of Halifax, Saint John, Chicoutimi, Quebec, Three Rivers, Montreal, Vancouver, and Churchill; grain elevators at Prescott and Port Colborne; and the Jacques Cartier Bridge at Montreal. These facilities represent a capital investment of approximately \$263,000,000. Current operating revenues and expenditures are given in Table 30, pp. 867-868.

Harbour Traffic.—The freight movement through a large port takes a number of different forms. The overseas movement of freight loaded on and unloaded from sea-going vessels frequently constitutes a surprisingly small part of the total. Usually the volume from coasting vessels is larger. There is, as well, the in-transit movement in vessels that pass through the harbour without loading or unloading and the movement from one point to another within the harbour, which in many ports amounts to a large volume. It is not possible to obtain statistics of the total freight handled at all the ports and harbours of Canada because many of them are small and without the staff necessary to maintain detailed records. However, the National Harbours Board prepares an annual report of the water-borne cargo loaded and unloaded at the eight ports under its control. Six of these are the principal ports of Canada and the cargo handled at each is shown in Table 6. The figures include freight carried by coasting and inland international as well as by sea-going shipping; they include all cargo loaded and unloaded, whether by facilities under the jurisdiction of the Board or at private docks and terminals. Cross-harbour movements, ballast (non-revenue), bunkers, ships' stores, mail and passengers' baggage are not included.

6.—Principal Commodities in Water-Borne Cargo Loaded and Unloaded at Each of the Six Principal Ports 1955 and 1956

NOTE.—Commodities totalling less than 50,000 tons in 1956 are not listed.

| Port and Commodity | 1955 | | | 1956 | | |
|---|------------------|------------------|-------------------|------------------|------------------|-------------------|
| | Inward | Outward | Total | Inward | Outward | Total |
| | tons | tons | tons | tons | tons | tons |
| Montreal— | | | | | | |
| Grain..... | 2,396,765 | 2,290,958 | 4,687,723 | 2,735,841 | 3,394,712 | 6,130,553 |
| Petroleum oil, fuel..... | 697,767 | 1,719,737 | 2,417,504 | 349,502 | 2,036,881 | 2,386,383 |
| Petroleum oil, crude..... | 980,318 | 294,663 | 1,274,981 | 1,621,571 | 315,347 | 1,936,918 |
| Coal, bituminous..... | 1,345,453 | 1,314 | 1,346,767 | 1,282,387 | — | 1,282,387 |
| Gasoline..... | 153,246 | 892,474 | 1,045,720 | 177,772 | 915,107 | 1,092,879 |
| Cement..... | 371,422 | 199,260 | 570,682 | 394,027 | 154,154 | 548,181 |
| Sugar, raw..... | 379,777 | 3 | 379,780 | 393,942 | 3 | 393,945 |
| Gypsum, crude..... | 403,671 | 31,974 | 435,645 | 328,197 | 16,650 | 344,847 |
| Flour, wheat..... | 3 | 306,386 | 306,389 | — | 320,206 | 320,206 |
| Iron or steel band, bars, <i>n.o.p.</i> , hoop, plates, rods, sheets, skelp, strip and tin plate..... | 44,256 | 23,166 | 67,422 | 167,132 | 25,199 | 192,331 |
| Iron or steel, scrap..... | 7,055 | 129,677 | 136,732 | 975 | 172,893 | 173,868 |
| Grain products (mill products ex- cept wheat flour)..... | 6,289 | 123,118 | 129,407 | 46 | 159,265 | 159,311 |
| Petroleum oil, refined, <i>n.o.p.</i> | 31,189 | 75,502 | 106,691 | 56,916 | 101,280 | 158,196 |
| Iron or steel, structural..... | 39,795 | 4,885 | 44,680 | 145,459 | 5,471 | 150,930 |
| Phosphate rock..... | 102,917 | 7,121 | 110,038 | 137,658 | 4,424 | 142,082 |
| Asbestos and asbestos manufac- tures..... | 4,222 | 78,708 | 82,930 | 10,034 | 103,280 | 113,314 |
| Coal, anthracite..... | 177,018 | 7,580 | 184,598 | 104,727 | 2,833 | 107,560 |
| Oil cake and oil cake meal..... | — | 86,438 | 86,438 | — | 100,992 | 100,992 |
| Iron ore..... | 61,286 | 48,805 | 110,091 | 46,043 | 46,043 | 92,086 |
| Molasses..... | 79,673 | 19,052 | 98,725 | 73,158 | 18,549 | 91,707 |
| Motor vehicles and parts..... | 25,739 | 54,422 | 80,161 | 41,136 | 42,215 | 83,351 |
| Iron or steel manufactures, <i>n.o.p.</i> | 54,012 | 16,755 | 70,767 | 63,121 | 19,672 | 82,793 |
| Glass and glass manufactures..... | 72,070 | 4,165 | 76,235 | 75,213 | 5,203 | 80,416 |
| Lumber (planks, boards and floor- ing) and square timber..... | 20,823 | 70,767 | 91,590 | 16,623 | 55,151 | 71,774 |
| Chrome ore..... | 37,422 | 14,273 | 51,695 | 46,495 | 18,990 | 65,485 |
| Nickel and nickel manufactures..... | 101 | 47,939 | 48,040 | 124 | 63,651 | 63,775 |
| Salt..... | 20,307 | 436 | 20,743 | 58,420 | 90 | 58,510 |
| Aluminum, in bars, billets, blocks, ingots, pigs, rods, sheets or slabs..... | 1,054 | 7,899 | 8,953 | 7,966 | 47,368 | 55,334 |
| Copper, in bars, billets, cakes, cathodes, ingots or slabs..... | 287 | 52,211 | 52,498 | 2,734 | 52,503 | 55,237 |
| Machinery and parts (except agricultural)..... | 33,141 | 20,824 | 53,965 | 27,466 | 24,553 | 52,019 |
| Fluorspar..... | 16,852 | 17,465 | 34,317 | 25,950 | 25,490 | 51,440 |
| Fruits, fresh, <i>n.o.p.</i> | 1,054 | 997 | 2,051 | 519 | 50,622 | 51,141 |
| Totals, Commodities over 50,000 tons in 1956..... | 7,564,984 | 6,648,974 | 14,213,958 | 8,391,154 | 8,298,797 | 16,689,951 |
| Totals, All Commodities..... | 8,350,659 | 7,489,907 | 15,840,566 | 9,284,346 | 9,144,489 | 18,428,835 |
| Vancouver— | | | | | | |
| Grain..... | — | 2,392,983 | 2,392,983 | — | 3,566,876 | 3,566,876 |
| Logs, masts, piling, pitprops, poles, posts, spars and ties..... | 1,140,436 | 147,868 | 1,288,304 | 1,011,445 | 146,638 | 1,158,083 |
| Lumber (planks, boards and floor- ing) and square timber..... | 544,541 | 580,369 | 1,124,910 | 743,208 | 369,401 | 1,112,609 |
| Petroleum oil, fuel..... | 397,628 | 487,291 | 884,919 | 414,756 | 533,545 | 948,301 |
| Petroleum oil, crude..... | 5,748 | — | 5,748 | — | 887,154 | 887,154 |
| Sand and gravel..... | 655,140 | 3,105 | 658,245 | 794,011 | 9,858 | 803,869 |
| Gasoline..... | 38,347 | 351,804 | 390,151 | 36,299 | 499,917 | 536,216 |
| Wood pulp..... | 291,087 | 29,066 | 320,153 | 292,971 | 33,342 | 326,313 |
| Flour, wheat..... | 144 | 268,898 | 269,042 | 130 | 254,903 | 255,033 |
| Iron or steel tubes, pipes and fittings..... | 88,619 | 2,844 | 91,463 | 194,328 | 54,969 | 249,297 |
| Cement..... | 165,032 | 20,068 | 185,100 | 181,172 | 20,575 | 201,747 |
| Hog fuel..... | — | 205,640 | 205,640 | — | 195,352 | 195,352 |
| Pulpwood..... | — | 200,558 | 200,558 | — | 181,529 | 181,529 |
| Motor vehicles and parts..... | 78,615 | 25,198 | 103,813 | 113,877 | 47,549 | 161,426 |
| Newsprint..... | 170,890 | 8,441 | 179,331 | 153,454 | 6,527 | 159,981 |
| Kerosene..... | 40,937 | 62,523 | 103,460 | 73,671 | 67,542 | 141,213 |

6.—Principal Commodities in Water-Borne Cargo Loaded and Unloaded at Each of the Six Principal Ports 1955 and 1956—continued

| Port and Commodity | 1955 | | | 1956 | | |
|---|------------------|------------------|-------------------|------------------|------------------|-------------------|
| | Inward | Outward | Total | Inward | Outward | Total |
| | tons | tons | tons | tons | tons | tons |
| Vancouver—concluded | | | | | | |
| Iron or steel band, bars, <i>n.o.p.</i> , hoop, plates, rods, skeets, skelp, strip and tin plate..... | 54,267 | 1,630 | 55,897 | 102,882 | 2,766 | 105,648 |
| Sugar, raw..... | 89,760 | — | 89,760 | 100,204 | — | 100,204 |
| Coal, bituminous..... | 33,519 | 51,145 | 84,664 | 26,968 | 71,034 | 98,002 |
| Ores and concentrates, <i>n.o.p.</i> | 88,042 | 329 | 88,371 | 80,310 | 14,161 | 94,471 |
| Machinery and parts (except agri- cultural)..... | 20,979 | 16,836 | 37,815 | 32,600 | 36,089 | 68,689 |
| Lime..... | 55,558 | 1,100 | 56,658 | 50,925 | 2,404 | 53,329 |
| Totals, Commodities over 50,000 tons in 1956..... | 3,959,289 | 4,857,696 | 8,816,985 | 4,403,211 | 7,002,131 | 11,405,342 |
| Totals, All Commodities..... | 5,117,768 | 5,867,244 | 10,985,012 | 5,295,893 | 8,065,411 | 13,361,304 |
| Halifax— | | | | | | |
| Petroleum oil, crude..... | 1,039,118 | — | 1,039,118 | 1,780,032 | — | 1,780,032 |
| Petroleum oil, fuel..... | 702,930 | 716,081 | 1,509,011 | 523,732 | 869,635 | 1,393,367 |
| Gypsum, crude..... | — | 684,939 | 684,939 | — | 1,290,756 | 1,290,756 |
| Grain..... | 1,026 | 451,725 | 452,751 | 4,121 | 609,494 | 613,615 |
| Gasoline..... | 383,240 | 210,209 | 593,449 | 307,740 | 264,708 | 572,448 |
| Flour, wheat..... | 137 | 88,757 | 88,894 | 120 | 98,552 | 98,672 |
| Fish (incl. shellfish) dried, pickled, salted or smoked..... | 37,887 | 69,363 | 107,250 | 25,464 | 60,252 | 85,716 |
| Bauxite ore..... | — | — | — | 41,575 | 40,510 | 82,085 |
| Lumber (planks, boards and floor- ing) and square timber..... | 1,207 | 77,776 | 78,983 | 219 | 64,272 | 64,491 |
| Cement..... | 33,965 | 4,610 | 38,575 | 61,064 | 841 | 61,905 |
| Motor vehicles and parts..... | 15,320 | 19,447 | 34,767 | 38,923 | 13,586 | 52,509 |
| Totals, Commodities over 50,000 tons in 1956..... | 2,304,830 | 2,322,907 | 4,627,737 | 2,782,990 | 3,312,606 | 6,095,596 |
| Totals, All Commodities..... | 2,735,999 | 2,883,070 | 5,619,069 | 3,134,516 | 3,716,380 | 6,850,896 |
| Quebec— | | | | | | |
| Petroleum oil, fuel..... | 744,439 | 17,939 | 762,378 | 939,760 | 33,846 | 973,606 |
| Grain..... | 313,633 | 294,756 | 608,389 | 321,535 | 521,309 | 842,844 |
| Pulpwood..... | 684,416 | — | 684,416 | 773,353 | — | 773,353 |
| Gasoline..... | 248,794 | 5,018 | 253,812 | 371,564 | 11,028 | 382,592 |
| Coal, bituminous..... | 283,372 | 490 | 283,862 | 241,067 | 192 | 241,259 |
| Cement..... | 98,434 | 35,404 | 133,838 | 113,981 | 109,839 | 223,820 |
| Ores and concentrates, <i>n.o.p.</i> | 1,703 | 101,891 | 103,594 | — | 166,415 | 166,415 |
| Asbestos and asbestos manufac- tures..... | — | 166,863 | 166,863 | — | 161,519 | 161,519 |
| Newsprint..... | 773 | 130,383 | 131,156 | 4,030 | 138,734 | 142,764 |
| Cement clinker..... | — | — | — | 66,247 | — | 66,247 |
| Totals, Commodities over 50,000 tons in 1956..... | 2,375,564 | 752,744 | 3,128,308 | 2,831,537 | 1,142,882 | 3,974,419 |
| Totals, All Commodities..... | 2,518,954 | 877,969 | 3,396,923 | 2,987,331 | 1,293,915 | 4,281,246 |
| Three Rivers— | | | | | | |
| Pulpwood..... | 1,508,358 | — | 1,508,358 | 1,663,547 | 4,414 | 1,667,961 |
| Grain..... | 288,464 | 282,785 | 571,249 | 454,581 | 500,562 | 955,143 |
| Petroleum oil, fuel..... | 269,531 | 2,470 | 272,001 | 302,036 | 9,426 | 311,462 |
| Coal, bituminous..... | 296,884 | — | 296,884 | 260,185 | — | 260,185 |
| Newsprint..... | — | 126,302 | 126,302 | — | 158,878 | 158,878 |
| Gasoline..... | 64,969 | 21 | 64,990 | 63,053 | — | 63,053 |
| Totals, Commodities over 50,000 tons in 1956..... | 2,428,206 | 411,578 | 2,839,784 | 2,743,402 | 673,280 | 3,416,682 |
| Totals, All Commodities..... | 2,498,311 | 492,441 | 2,990,752 | 2,845,098 | 760,336 | 3,605,434 |

6.—Principal Commodities in Water-Borne Cargo Loaded and Unloaded at Each of the Six Principal Ports 1955 and 1956—concluded

| Port and Commodity | 1955 | | | 1956 | | |
|---|------------------|------------------|------------------|------------------|------------------|------------------|
| | Inward | Outward | Total | Inward | Outward | Total |
| | tons | tons | tons | tons | tons | tons |
| Saint John— | | | | | | |
| Grain..... | — | 693,591 | 693,591 | 109 | 859,551 | 859,660 |
| Petroleum oil, fuel..... | 390,179 | 26,161 | 416,340 | 430,708 | 37,343 | 468,051 |
| Sugar, raw..... | 207,635 | 2,794 | 210,429 | 229,340 | — | 229,340 |
| Gasoline..... | 176,906 | 24,791 | 201,697 | 180,006 | 25,721 | 205,727 |
| Newsprint..... | — | 108,903 | 108,903 | — | 103,000 | 103,000 |
| Oil cake and oil cake meal..... | — | 58,123 | 58,123 | — | 100,203 | 100,203 |
| Lumber (planks, boards and flooring) and square timber..... | 8,978 | 122,427 | 131,405 | 7,990 | 82,226 | 90,216 |
| Flour, wheat..... | 4 | 116,061 | 116,065 | — | 88,368 | 88,368 |
| Motor vehicles and parts..... | 33,426 | 16,679 | 50,105 | 46,060 | 14,297 | 60,357 |
| Totals, Commodities over 50,000 tons in 1956..... | 817,128 | 1,169,530 | 1,986,658 | 894,213 | 1,310,709 | 2,204,922 |
| Totals, All Commodities..... | 1,153,193 | 1,673,335 | 2,826,528 | 1,295,858 | 1,761,393 | 3,057,251 |

Dry Docks.—The Department of Public Works of the Federal Government owns five dry docks—one at Kingston, Ont., two at Lauzon, Que., and two at Esquimalt, B.C.—and operates all except the one at Kingston which is under lease to the Canadian Shipbuilding and Engineering Company of Kingston. The old Esquimalt dry dock was temporarily transferred to the Department of National Defence on Nov. 1, 1934, and, when commercially required, it will be returned to the control of the Department of Public Works. Each of the large dry docks at Lauzon, Que., and Esquimalt, B.C., can be divided for use of small vessels; the larger Lauzon dock cost approximately \$4,500,000 and the larger Esquimalt dock approximately \$7,000,000.

7.—Dimensions of Dry Docks Owned by the Federal Government

| Location | Length | Width at— | | | Depth of Water on Sill | Rise of Tide | |
|--------------------------------------|--------------------|-----------|--------|----------|------------------------|--------------|--------|
| | | Coping | Bottom | Entrance | | Spring | Neap |
| | ft. | ft. | ft. | ft. | ft. | ft. | ft. |
| Lauzon, Que., <i>Champlain</i> | 1,150.0 | 120.0 | 105.0 | 120.0 | 40.0 H.W. | 18 | 13.3 |
| Lauzon, Que., <i>Lorne</i> | 600.3 | 100.0 | 59.5 | 62.0 | 25.7 H.W. | 18 | 13.3 |
| Esquimalt, B.C. (old dock)..... | 450.8 ¹ | 90.0 | 41.0 | 65.0 | 28.8 H.W. ² | 7 to 10 | 3 to 8 |
| Esquimalt, B.C..... | 1,173.8 | 149.0 | 126.0 | 135.0 | 40.0 H.W. | 7 to 10 | 3 to 8 |
| Kingston, Ont. ³ | 370.0 | 55.0 | 47.0 | 55.0 | 16.8½ L.W. | — | — |

¹ Face of caisson to vertical face at head, 481.0 ft.; length of pad on which keel blocks rest, 403.5 ft.

keel blocks at H.W. 10 ft., tide 26.1 ft.

² Under lease to Canadian Shipbuilding and Engineering Company,

Kingston.

8.—Dimensions and Cost of Dry Docks Subsidized under the Dry Docks Subsidies Act 1910

| Location | Length | Width | Depth Over Sill | Total Cost | Subsidy |
|---|---------|-------|-------------------|------------|----------------------|
| | ft. | ft. | ft. | \$ | |
| Collingwood No. 1, Ont..... | 518.3 | 59.8 | 15.5 | 500,000 | 1 |
| Collingwood No. 2, Ont..... | 412.0 | 95.0 | 16.0 | 306,965 | 1 |
| Port Arthur, Ont..... | 701.0 | 77.5 | 16.2 | 1,258,050 | 1 |
| Montreal, Que. (floating dock), <i>Duke of Connaught</i> | 601.0 | 98.0 | 38.0 | 3,000,000 | 1 |
| Saint John, N.B..... | 1,157.8 | 131.5 | 40.3 | 5,500,000 | 4½ p.c. for 35 years |
| North Vancouver, B.C. (floating dock)..... | 556.5 | 98.0 | 28.0 ² | 2,500,000 | 4½ p.c. for 35 years |

¹ Subsidy payments have been completed.

² Over sill (H.W.).

Subsection 3.—Canals*

The canals and canalized waters of Canada under the jurisdiction of the Department of Transport comprise a series of waterways providing navigation for 1,875 miles inland from salt water. The canals included under the two classifications—main or primary canals and subsidiary or secondary canals—are listed in Table 9 with their locations, lengths and lock complement. In addition to these, the federal Department of Public Works administers the St. Andrews Lock (length, width and draught, respectively, 215, 45 and 17 feet) on the Red River at Selkirk, Man., and the lock at Poupore, Que. A few small locks are operated by provincial authorities.

During 1956, 40,016,565 tons of freight and 32,865 vessels passed through the canals as compared with 34,874,198 tons of freight and 28,172 vessels during 1955. In addition to freight and passenger vessels, thousands of pleasure craft are locked through the canals. Vessels locking at Sault Ste. Marie during 1956 carried 121,151 passengers as compared with 178,006 in 1955.

Revenue from canals during the year ended Mar. 31, 1957, amounted to \$1,790,202 of which \$1,349,989 was derived from rentals for hydraulic and land privileges and wharfage. In the previous fiscal year the total revenue was \$2,163,611 with rentals and wharfage amounting to \$1,330,797.

* A special article on the Canals of the St. Lawrence Waterway appears in the 1954 Year Book, pp. 830-833.

9.—Lengths of Channels and Dimensions of Locks under the Control of the Department of Transport as at July 1, 1957

| Name | Location | Length of Channel | Locks | | | |
|--------------------------------------|---|-------------------|-------|--------------------|-------|-------|
| | | | No. | Minimum Dimensions | | |
| | | | | Length | Width | Depth |
| | | miles | | ft. | ft. | ft. |
| Main Route Canals | | | | | | |
| St. Lawrence and Great Lakes— | | | | | | |
| Lachine..... | Montreal to Lachine..... | 8.74 | 5 | 270 | 45 | 14 |
| Soulages..... | Cascades Point to Coteau Landing..... | 14.67 | 5 | 280 | 46 | 14 |
| Cornwall..... | Cornwall to Dickinson Landing..... | 11.00 | 6 | 270 | 43.67 | 14 |
| Farran's Point..... | Farran's Point Rapids..... | 1.28 | 1 | 800 | 50 | 16 |
| Rapide Plat..... | Rapide Plat, Morrisburg..... | 3.89 | 2 | 270 | 45 | 14 |
| Galop..... | Iroquois to Cardinal..... | 7.36 | 3 | 270 | 45 | 14 |
| Welland Ship..... | Port Weller, Lake Ontario, to Port Colborne, Lake Erie..... | 27.60 | 8 | 859 | 80 | 23.5 |
| Sault Ste. Marie..... | St. Mary's Rapids, Sault Ste. Marie..... | 1.38 | 1 | 900 | 60 | 18.25 |
| Subsidiary Canals or Branches | | | | | | |
| Canso Canal..... | Canso Causeway, N.S..... | 0.70 | 1 | 820 | 80 | 28 |
| Atlantic Ocean to Bras d'Or Lakes— | | | | | | |
| St. Peters..... | St. Peters Bay to Bras d'Or Lakes, Cape Breton, N.S..... | 0.50 | 1 | 300 | 47.4 | 17 |
| Richelieu River— | | | | | | |
| St. Ours..... | St. Ours, Que..... | 0.12 | 1 | 339 | 45 | 12 |
| Chambly..... | Chambly to St. Johns, Que..... | 11.78 | 9 | 120.5 | 23.25 | 6.5 |
| Ottawa and Rideau Rivers— | | | | | | |
| Ste. Anne..... | Junction of St. Lawrence and Ottawa Rivers..... | 0.12 | 1 | 200 | 45 | 9 |
| Carillon..... | Carillon Rapids, Ottawa River..... | 0.94 | 2 | 200 | 45 | 9 |
| Grenville..... | Long Sault Rapids, Ottawa River..... | 5.94 | 5 | 200 | 45 | 9 |
| Rideau..... | Ottawa to Kingston..... | 123.53 | 47 | 134 | 33 | 5.5 |
| | Rideau Lake to Perth (Tay Branch)..... | 6.82 | 2 | 134 | 33 | 5.5 |

**9.—Lengths of Channels and Dimensions of Locks under the Control of the
Department of Transport as at July 1, 1957—concluded**

| Name | Location | Length of Channel | Locks | | | |
|--|--|-------------------------|-------|--------------------|-------|------------------|
| | | | No. | Minimum Dimensions | | |
| | | | | Length | Width | Depth |
| | | miles | | ft. | ft. | ft. |
| Subsidiary Canals or Branches—concluded | | | | | | |
| Lake Ontario to Georgian Bay— Trent..... | Trenton to Peterborough lock, Peter- borough..... | 88.74 | 18 | 175 | 33 | 8 ¹ |
| | Peterborough lock to Swift Rapids..... | 135.71 | 24 | 134 | 33 | 6 |
| | Swift Rapids to Big Chute..... | 8.00 | ... | ... | ... | 4 |
| | Big Chute to Port Severn..... | 8.11 | 1 | 100 | 25 | 6 |
| | Sturgeon Lake to Lindsay (Scugog Branch)..... | 10.00 | 1 | 142 | 33 | 6 |
| | Lindsay to Port Perry (Scugog Branch).. Murray..... | 25.00 | — | — | — | 4.5 |
| | Isthmus of Murray, Bay of Quinte..... | 7.53 | — | — | — | 8.5 ² |
| | Total..... | 509.46 | | | | |

¹ Notice must be given by vessels of more than 6-foot draught.

² With Lake Ontario at elevation

at 243 feet.

10.—Traffic through Canadian Canals by Nationality of Vessel, Navigation Seasons 1947-56

NOTE.—Figures include duplications where vessels use two or more canals. Figures from 1886 are available in the corresponding table of previous Year Books beginning with the 1902 edition.

| Navigation Season | Canadian | | United States | | United Kingdom | | Other | |
|----------------------|----------|-----------------------|---------------|-----------------------|----------------|-----------------------|---------|-----------------------|
| | Vessels | Registered Tonnage | Vessels | Registered Tonnage | Vessels | Registered Tonnage | Vessels | Registered Tonnage |
| | No. | No. | No. | No. | No. | No. | No. | No. |
| 1947..... | 18,542 | 18,613,576 | 2,085 | 3,667,671 | 1 | 1 | 247 | 128,622 |
| 1948..... | 19,859 | 19,723,768 | 2,455 | 3,999,472 | 1 | 1 | 329 | 220,067 |
| 1949..... | 21,724 | 20,773,831 | 2,159 | 3,011,023 | 1 | 1 | 336 | 249,015 |
| 1950..... | 21,179 | 21,989,263 | 2,785 | 3,175,566 | 1 | 1 | 456 | 338,636 |
| 1951..... | 22,141 | 22,951,468 | 2,993 | 3,987,700 | 1 | 1 | 414 | 309,972 |
| 1952..... | 22,565 | 25,608,373 | 3,081 | 3,686,781 | 1 | 1 | 676 | 514,224 |
| 1953..... | 23,378 | 27,845,139 | 2,984 | 3,777,571 | 1 | 1 | 1,201 | 919,875 |
| 1954..... | 21,066 | 25,303,262 | 3,145 | 3,245,555 | 1 | 1 | 1,081 | 893,778 |
| 1955..... | 22,758 | 27,709,232 | 3,950 | 3,798,290 | 200 | 132,858 | 1,264 | 1,044,774 |
| 1956..... | 27,473 | 31,019,188 | 3,776 | 3,675,511 | 267 | 186,978 | 1,349 | 1,141,259 |

¹ Included with Canadian vessels.

**11.—Freight Traffic through Canadian Canals by Origin of Cargo, Navigation Seasons
1947-56**

NOTE.—Figures include duplication where cargoes pass through two or more canals. Figures from 1886 are available in the corresponding table of previous Year Books beginning with the 1902 edition.

| Navigation Season | Canada | | United States | | United Kingdom | | Other | | Total |
|----------------------|------------|------------------|---------------|------------------|----------------|------------------|---------|------------------|------------|
| | Tons | P.C. of Total | Tons | P.C. of Total | Tons | P.C. of Total | Tons | P.C. of Total | Tons |
| | | | | | | | | | |
| 1947..... | 10,288,481 | 47.8 | 11,225,458 | 52.2 | 1 | 1 | 1 | 1 | 21,513,939 |
| 1948..... | 11,169,714 | 47.4 | 12,389,599 | 52.6 | 1 | 1 | 1 | 1 | 23,559,313 |
| 1949..... | 14,800,509 | 60.7 | 9,573,243 | 39.3 | 1 | 1 | 1 | 1 | 24,373,752 |
| 1950..... | 15,138,009 | 55.2 | 12,301,067 | 44.8 | 1 | 1 | 1 | 1 | 27,439,076 |
| 1951..... | 16,004,284 | 54.6 | 13,320,750 | 45.4 | 1 | 1 | 1 | 1 | 29,325,034 |
| 1952..... | 17,245,051 | 55.0 | 14,109,088 | 45.0 | 1 | 1 | 1 | 1 | 31,354,139 |
| 1953..... | 18,464,479 | 55.3 | 14,908,585 | 44.7 | 1 | 1 | 1 | 1 | 33,373,064 |
| 1954..... | 17,237,542 | 57.3 | 12,833,159 | 42.7 | 1 | 1 | 1 | 1 | 30,070,701 |
| 1955..... | 20,002,540 | 57.4 | 14,177,878 | 40.7 | 120,827 | 0.3 | 572,953 | 1.6 | 34,874,198 |
| 1956..... | 24,698,001 | 61.7 | 14,457,217 | 36.1 | 106,448 | 0.3 | 754,899 | 1.9 | 40,016,565 |

¹ Included with United States.

12.—Tonnage of Products carried by Canal classified by Commodity Group, Navigation Season 1956

NOTE.—Figures include duplications where cargoes use two or more canals.

| Canal | Agricultural Products | Animal Products | Manu- factures and Mis- cellaneous | Forest Products | Mineral Products | Total |
|-------------------------|-----------------------|-----------------|---|------------------|-------------------|-------------------|
| | tons | tons | tons | tons | tons | tons |
| Sault Ste. Marie..... | 1,670,561 | 43 | 943,651 | 32,911 | 342,112 | 2,989,278 |
| Welland Ship..... | 6,085,072 | 15,522 | 3,864,173 | 529,664 | 12,571,830 | 23,066,261 |
| St. Lawrence River..... | 4,523,575 | 21,186 | 3,131,941 | 524,312 | 5,298,684 | 13,499,698 |
| Richelieu River..... | 2,152 | — | 95,488 | — | 1,323 | 98,963 |
| St. Peters..... | 355 | 661 | 483 | 26 | 175 | 1,700 |
| Murray..... | — | — | — | — | — | — |
| Ottawa River..... | — | — | — | — | 283,500 | 283,500 |
| Rideau..... | — | — | 80 | 112 | 198 | 399 |
| Trent..... | — | — | 289 | — | — | 289 |
| St. Andrews..... | 201 | 1,925 | 2,482 | 3,472 | 2 | 8,082 |
| Canso..... | 2,993 | 15,963 | 39,203 | 837 | 9,399 | 68,395 |
| Totals..... | 12,284,909 | 55,300 | 8,077,799 | 1,091,334 | 18,507,223 | 40,016,565 |

13.—Freight Traffic through Canadian Canals by Direction and Origin, Navigation Season 1956 with Totals for 1953-55

NOTE.—Figures include duplications where cargoes pass through two or more canals.

| Canal | From Canadian to Canadian Ports | | From Canadian to United States Ports ¹ | | From United States to United States Ports ¹ | | From United States ¹ to Canadian Ports | |
|-------------------------|---------------------------------|-------------------|---|----------------------------|--|-------------------|---|-------------------|
| | Up | Down | Up | Down | Up | Down | Up | Down |
| | tons | tons | tons | tons | tons | tons | tons | tons |
| Sault Ste. Marie..... | 497,053 | 1,924,737 | 2,469 | 268,660 | 71,042 | 16,167 | 187,741 | 21,469 |
| Welland Ship..... | 1,102,549 | 6,061,585 | 3,143,270 | 93,287 | 788,454 | 1,065,084 | 35,039 | 10,746,993 |
| St. Lawrence River..... | 2,565,400 | 5,276,663 | 2,776,725 | 114,899 | 268,990 | 316,541 | 167,181 | 2,013,299 |
| Richelieu River..... | 49,711 | 5,806 | 24,122 | 245 | — | — | 2,780 | 16,299 |
| St. Peters..... | 727 | 946 | — | 27 | — | — | — | — |
| Murray..... | — | — | — | — | — | — | — | — |
| Ottawa River..... | — | 283,500 | — | — | — | — | — | — |
| Rideau..... | 205 | 194 | — | — | — | — | — | — |
| Trent..... | 41 | 248 | — | — | — | — | — | — |
| St. Andrews..... | 5,610 | 2,472 | — | — | — | — | — | — |
| Canso..... | 30,787 | 28,691 | 100 | 6,601 | — | — | 2,216 | — |
| Totals..... | 4,252,033 | 13,584,842 | 5,946,686 | 483,719 | 1,128,456 | 1,427,792 | 391,957 | 12,798,000 |
| | Traffic by Direction | | Origins of Cargo | | Total Cargo | | | |
| | Up | Down | Canada | United States ¹ | 1956 | 1955 | 1954 | 1953 |
| | tons | tons | tons | tons | tons | tons | tons | tons |
| Sault Ste. Marie..... | 758,305 | 2,230,973 | 2,695,600 | 293,678 | 2,989,278 | 2,201,075 | 2,607,968 | 3,389,409 |
| Welland Ship..... | 5,069,312 | 17,996,949 | 10,892,565 | 12,173,696 | 23,066,261 | 20,893,572 | 17,514,258 | 19,542,150 |
| St. Lawrence River..... | 5,778,296 | 7,721,402 | 10,669,803 | 2,829,895 | 13,499,698 | 11,446,620 | 9,637,034 | 10,081,992 |
| Richelieu River..... | 76,613 | 22,350 | 79,884 | 19,079 | 98,963 | 97,130 | 109,438 | 94,379 |
| St. Peters..... | 727 | 973 | 1,700 | — | 1,700 | 6,783 | 3,231 | 3,841 |
| Murray..... | — | — | — | — | — | 667 | 272 | 676 |
| Ottawa River..... | — | 283,500 | 283,500 | — | 283,500 | 206,525 | 190,812 | 243,032 |
| Rideau..... | 205 | 194 | 399 | — | 399 | 413 | 1,490 | 1,531 |
| Trent..... | 41 | 248 | 289 | — | 289 | 102 | 170 | 239 |
| St. Andrews..... | 5,610 | 2,472 | 8,082 | — | 8,082 | 8,112 | 6,030 | 15,815 |
| Canso..... | 33,103 | 35,292 | 66,179 | 2,216 | 68,395 | 13,199 | — | — |
| Totals..... | 11,722,212 | 23,294,353 | 24,698,001 | 15,318,564 | 40,016,565 | 34,874,198 | 30,070,701 | 33,373,064 |

¹ Figures for the United States include small amounts of traffic from other foreign countries.

The figures in Tables 12 and 13 include duplications where the same freight passes through two or more canals, but in Table 14 duplications in the traffic passing through the St. Lawrence and Welland Ship Canals and the Canadian lock at Sault Ste. Marie have been eliminated wherever possible.

Grain trans-shipped at Georgian Bay, Lake Erie, or other ports above Montreal is treated as new cargo and as most of this grain has passed through either the Canadian or United States locks at Sault Ste. Marie there are still duplications in the data because of this treatment. These duplications cannot be avoided when net totals for the Canadian canals are computed because it is impossible to ascertain which lock at Sault Ste. Marie was used by the grain reloaded at Port Colborne, Ont., or other trans-shipping port.

14.—St. Lawrence-Great Lakes Traffic using St. Lawrence, Welland Ship and Sault Ste. Marie Canals 1956

| Canals Used | Up-bound Freight | Down-bound Freight | Total |
|---|-------------------|--------------------|--------------------|
| | tons | tons | tons |
| Traffic using Canadian St. Lawrence-Great Lakes System | 8,010,110 | 23,381,224 | 31,391,334 |
| St. Lawrence only..... | 2,395,177 | 3,497,078 | 5,892,255 |
| St. Lawrence and Welland Ship..... | 3,366,769 | 3,593,252 | 6,960,021 |
| St. Lawrence, Welland Ship and Sault Ste. Marie..... | 79,460 | 76,460 | 155,920 |
| Welland Ship only..... | 1,489,859 | 13,983,461 | 15,473,320 |
| Welland Ship and Sault Ste. Marie..... | 133,224 | 343,776 | 477,000 |
| Sault Ste. Marie only..... | 545,621 | 1,887,197 | 2,432,818 |
| Traffic using United States Locks at Sault Ste. Marie only | 13,765,513 | 92,343,655 | 106,109,168 |
| Totals | 21,775,623 | 115,724,879 | 137,500,502 |

Traffic through the Sault Ste. Marie canals, Canadian and American, has been approximately twice as heavy as the traffic through the Panama Canal during the latest ten years for which records are available. Canal traffic has varied from 20,484,000 tons in 1932, which was less than the Panama traffic, to 109,907,136 tons in 1954. The dominant traffic from a tonnage aspect is iron ore which fluctuated from a low of 3,607,000 tons in 1932 to a high of 98,657,591 tons in 1953. In 1955 this tonnage amounted to 89,396,865, but dropped to 79,085,608 in 1956.

Soft coal has usually been second in volume to iron ore, increasing from 8,676,297 tons during the 1949 season to 13,301,048 tons in 1950; succeeding years brought declines to 7,397,623 tons in 1954, 9,053,769 tons in 1955 and 10,238,048 tons in 1956.

Although wheat ranks third in tonnage, its value over the past quarter-century has been greater generally than that of either iron ore or coal. Other grains have been about one-quarter to one-fifth of the wheat tonnage and a smaller ratio of the value.

The Panama Canal.—The Panama Canal was opened to commercial traffic on Aug. 15, 1914, and has since been a waterway of great importance to the ports of British Columbia, from which vessels leave direct for United Kingdom and other European ports throughout the year. As an alternative route to that of the transcontinental railway lines, this water passage is of vital importance in the solution of the larger transportation problems of the Continent. During World War I the great expectations based upon the opening of the Canal were not realized, because of the scarcity of shipping. However, with the postwar decline in ocean freight rates, an increase in traffic between Canada's Pacific ports and Europe took place and, while the proportion carried in vessels of Canadian registry was comparatively small, the cargo tonnage nevertheless assumed considerable

proportions. During World War II the volume of Canadian traffic through the Canal was again reduced but has since increased considerably. A distinctive feature of this traffic is that most of the tonnage westbound is destined for Canadian West Coast ports, while only a small percentage of the freight originating on the West Coast is unloaded in Eastern Canada.

15.—Traffic to and from the East and West Coasts of Canada via the Panama Canal, Years Ended June 30, 1948-57

NOTE.—Figures from 1921 are given in the corresponding table of previous Year Books beginning with the 1938 edition.

| Year | Originating on— | | Destined for— | | Year | Originating on— | | Destined for— | |
|-----------|-----------------|------------|---------------|------------|-----------|-----------------|------------|---------------|------------|
| | West Coast | East Coast | West Coast | East Coast | | West Coast | East Coast | West Coast | East Coast |
| | long tons | long tons | long tons | long tons | | long tons | long tons | long tons | long tons |
| 1948..... | 2,824,394 | 244,121 | 162,561 | 67,215 | 1953..... | 3,560,925 | 532,810 | 341,548 | 219,567 |
| 1949..... | 2,298,492 | 188,506 | 154,524 | 145,477 | 1954..... | 4,153,577 | 398,778 | 402,335 | 230,295 |
| 1950..... | 2,707,047 | 185,076 | 226,673 | 143,395 | 1955..... | 4,109,456 | 301,450 | 427,825 | 303,585 |
| 1951..... | 2,910,246 | 240,904 | 372,534 | 142,741 | 1956..... | 3,636,245 | 362,740 | 601,345 | 313,440 |
| 1952..... | 3,644,888 | 287,872 | 281,960 | 114,319 | 1957..... | 3,501,015 | 470,115 | 760,142 | 194,225 |

16.—Commercial Traffic through the Panama Canal, Years Ended June 30, 1948-57

NOTE.—Figures from 1915 are given in the corresponding table of previous Year Books beginning with the 1938 edition.

| Year | Atlantic to Pacific | | Pacific to Atlantic | | Totals | |
|-----------|---------------------|---------------|---------------------|---------------|---------|---------------|
| | Vessels | Cargo Tonnage | Vessels | Cargo Tonnage | Vessels | Cargo Tonnage |
| | No. | long tons | No. | long tons | No. | long tons |
| 1948..... | 2,286 | 8,679,140 | 2,392 | 15,438,648 | 4,678 | 24,117,788 |
| 1949..... | 2,387 | 9,899,088 | 2,406 | 15,406,070 | 4,793 | 25,305,158 |
| 1950..... | 2,689 | 9,483,863 | 2,759 | 19,388,430 | 5,448 | 28,872,293 |
| 1951..... | 2,784 | 11,132,472 | 2,809 | 18,940,550 | 5,593 | 30,073,022 |
| 1952..... | 3,184 | 15,128,995 | 3,340 | 18,481,514 | 6,524 | 33,610,509 |
| 1953..... | 3,674 | 17,329,066 | 3,736 | 18,766,283 | 7,410 | 36,095,349 |
| 1954..... | 3,852 | 18,377,724 | 3,932 | 20,717,343 | 7,784 | 39,095,067 |
| 1955..... | 4,002 | 18,419,006 | 3,995 | 22,227,295 | 7,997 | 40,646,301 |
| 1956..... | 4,133 | 21,286,036 | 4,076 | 23,833,006 | 8,209 | 45,119,042 |
| 1957..... | 4,495 | 25,429,843 | 4,084 | 24,272,357 | 8,579 | 49,702,200 |

Subsection 4.—Aids to Navigation

Included under aids to navigation are the lighthouses and the whole system of marine danger signals on the East and West Coasts of Canada, on Hudson Bay and Strait, the St. Lawrence River and Gulf, the inland rivers and lakes, and at the entrances to harbours—a very extensive system designed to provide safe navigation in all Canadian waters. In

addition, a pilotage service is maintained in waters where navigation is difficult; this service is described under Marine Services at p. 859. A further aid to safe navigation is found in the chains of radio signal and direction-finding stations described under Radio Services at p. 896. Lists of aids to navigation, with the exception of very minor ones, are published by the Department of Transport.

17.—Marine Danger Signals maintained in Canada, Years Ended Mar. 31, 1952-57

NOTE.—In addition to the aids to navigation listed, approximately 9,300 unlighted buoys, balises, dolphins and beacons are maintained. Lists of marine danger signals maintained from 1929 are given in the corresponding table of previous Year Books beginning with the 1941 edition.

| Type of Signal | 1952 | 1953 | 1954 | 1955 | 1956 | 1957 |
|---|-------|-------|-------|-------|-------|-------|
| | No. | No. | No. | No. | No. | No. |
| Lights..... | 2,861 | 2,901 | 2,876 | 3,003 | 3,044 | 3,082 |
| Lightships..... | 8 | 7 | 6 | 7 | 6 | 4 |
| Light-keepers..... | 1,131 | 1,154 | 1,083 | 1,084 | 1,003 | 1,014 |
| Fog whistles..... | 23 | 24 | 18 | 19 | 19 | 18 |
| Sirens..... | 3 | 3 | 4 | 5 | 5 | 4 |
| Diaphones..... | 213 | 216 | 211 | 235 | 242 | 246 |
| Fog bells..... | 46 | 46 | 49 | 54 | 54 | 47 |
| Hand fog horns..... | 127 | 124 | 122 | 127 | 124 | 122 |
| Hand fog bells..... | 12 | 12 | 12 | 12 | 13 | 12 |
| Lighted and combination lighted whistling and bell buoys..... | 681 | 719 | 778 | 946 | 975 | 1,020 |
| Whistling buoys..... | 37 | 37 | 36 | 32 | 32 | 33 |
| Bell buoys..... | 113 | 112 | 115 | 117 | 115 | 113 |
| Fog guns and bombs..... | 9 | 8 | 9 | 7 | 7 | 7 |
| Fog alarm stations only..... | 15 | 15 | 15 | 17 | 17 | 17 |

Navigable waters have been improved greatly by dredging in channels and harbours, by the removal of obstructions, and by the building of remedial works to maintain or control water levels. Incidental to these developments of navigable waters are works to guard shorelines and prevent erosion, and for the control of roads and bridges that cross navigable channels. Ice-breaking operations are carried on at the beginning and at the end of winter to prolong the season of navigation in important waters that freeze over—particularly in connection with sea-going shipping from Montreal—and to prevent flood conditions during the spring ice break-up.

St. Lawrence River Ship Channel.—This channel extends from about 40 miles below Quebec City to the foot of Lachine Canal at Montreal, a distance of 200 miles. About 113 miles of this distance is dredged channel.

Above Quebec the channel has a limiting depth of 35 feet at extreme low water and a minimum width of 550 feet, with additional width up to 1,500 feet at all curves, and difficult points, and additional anchorage and turning areas. This section comprises about 100 miles of dredged channel. Below Quebec the limiting depth of dredged channel, about 13 miles in length, is 30 feet at low tide, with a width of 1,000 feet. An average tidal range of 15 feet in this area provides ample depth for any vessel using the St. Lawrence route. Maintenance requirements owing to silting in this dredged channel are relatively minor above Quebec but below the city silting is more pronounced because of tidal action.

The ship channel is well defined by buoys and the centre marked by range lights, permitting uninterrupted day and night navigation throughout the open season from about mid-April to early December. The movements of all shipping, weather and ice conditions and obstructions to traffic throughout the St. Lawrence waterway from Fame Point, Que., to Kingston, Ont., are recorded and made available to all concerned through a series of reporting stations known as the Marine Reporting Service.

A fleet of ice-breaking vessels is maintained to facilitate the movement of shipping between Montreal and the sea during the opening and closing of navigation, and to alleviate flood conditions in low-lying areas.

18.—Seasons of Open Navigation on the St. Lawrence Ship Channel 1938-57

NOTE.—Figures from 1882 are given in the corresponding table of previous Year Books beginning with the 1934-35 edition.

| Year | Channel Open, Quebec to Montreal ¹ | First Arrival from Sea, Montreal Harbour | Last Departure for Sea, Montreal Harbour | Year | Channel Open, Quebec to Montreal ¹ | First Arrival from Sea, Montreal Harbour | Last Departure for Sea, Montreal Harbour |
|-----------|---|--|--|-----------|---|--|--|
| 1938..... | Apr. 12 | Apr. 18 | Dec. 4 | 1948..... | Apr. 10 | Apr. 19 | Dec. 10 |
| 1939..... | " 29 | " 29 | " 12 | 1949..... | " 7 | " 7 | " 15 |
| 1940..... | " 23 | " 24 | " 5 | 1950..... | " 18 | " 18 | " 7 |
| 1941..... | " 14 | " 19 | " 17 | 1951..... | " 11 | " 13 | " 13 |
| 1942..... | " 17 | May 2 | " 16 | 1952..... | " 12 | " 13 | " 10 |
| 1943..... | " 29 | " 24 | " 13 | 1953..... | Mar. 30 | " 2 | " 21 |
| 1944..... | " 20 | Apr. 21 | " 9 | 1954..... | Apr. 15 | Mar. 30 | " 15 |
| 1945..... | " 1 | " 9 | " 3 | 1955..... | " 17 | Apr. 5 | " 15 |
| 1946..... | " 1 | " 12 | " 18 | 1956..... | " 13 | " 2 | " 17 |
| 1947..... | " 16 | " 19 | " 5 | 1957..... | " 8 | " 4 | " 18 |

¹ "Channel Open" means the route can be navigated although there may be floating ice in the river.

Subsection 5.—Marine Services of the Federal Government

The services covered in this Subsection deal with steamship inspection, pilotage service, sea-faring personnel and the operations of the Canadian National (West Indies) Steamships Limited.

Steamship Inspection.—The Steamship Inspection Service, provided for under Part VII of the Canada Shipping Act, is responsible for the administration and carrying out of the provisions of the Act respecting the periodic inspection of power-driven ships and the issue of inspection certificates; the assignment of load lines; the conditions under which dangerous goods may be carried in ships; the protection against accident of workers employed in loading and unloading ships; the prevention from pollution of Canadian territorial and inland waters by oil from ships; and also for the administration and carrying out of the provisions relating to the certification and employment of marine engineers. The Service has a headquarters staff at Ottawa and staffs of inspectors at the principal ocean and inland ports.

The Board of Steamship Inspection decides on questions arising out of the administration of the Act and takes care of the interests of the Federal Government in schools for marine engineers.

19.—Summary Statistics of Steamship Inspection, Year Ended Mar. 31, 1956

| Port | Vessels Subject to Inspection when in Commission | | Vessels Inspected | | | | Vessels Not Inspected | |
|--------------------------|--|---------------|-------------------------------|---------------|-------------------------------|---------------|-----------------------|---------------|
| | | | Registered or Owned in Canada | | Registered or Owned Elsewhere | | | |
| | No. | gross tonnage | No. | gross tonnage | No. | gross tonnage | No. | gross tonnage |
| St. John's, Nfld..... | 91 | 14,036 | 91 | 14,036 | — | — | — | — |
| North Sydney, N.S..... | 43 | 14,093 | 37 | 12,408 | 3 | 1,096 | 3 | 589 |
| Halifax, N.S..... | 448 | 132,457 | 196 | 126,357 | — | — | 252 | 6,100 |
| Saint John, N.B..... | 60 | 114,046 | 42 | 11,362 | 17 | 102,641 | 1 | 43 |
| Quebec, Que..... | 334 | 91,384 | 158 | 84,163 | 1 | 387 | 175 | 6,834 |
| Sorel, Que..... | 88 | 44,539 | 66 | 36,695 | — | — | 22 | 7,844 |
| Montreal, Que..... | 141 | 174,538 | 116 | 172,967 | — | — | 25 | 1,571 |
| Kingston, Ont..... | 98 | 151,012 | 93 | 151,012 | — | — | — | — |
| Toronto, Ont..... | 177 | 395,195 | 171 | 387,154 | — | — | 6 | 8,041 |
| St. Catharines, Ont..... | 60 | 186,691 | 60 | 186,691 | — | — | — | — |
| Collingwood, Ont..... | 60 | 89,811 | 56 | 83,000 | — | — | 4 | 6,811 |
| Midland, Ont..... | 85 | 149,309 | 74 | 148,613 | — | — | 11 | 696 |
| Port Arthur, Ont..... | 133 | 29,324 | 51 | 20,540 | — | — | 82 | 8,784 |
| Vancouver, B.C..... | 411 | 103,622 | 371 | 83,118 | 1 | 7,459 | 39 | 13,045 |
| Victoria, B.C..... | 82 | 73,166 | 69 | 70,613 | — | — | 13 | 2,553 |
| Totals..... | 2,311 | 1,763,223 | 1,656 | 1,588,729 | 22 | 111,583 | 633 | 62,911 |

Pilotage.—Pilotage service functions under the provisions of Part VI of the Canada Shipping Act. Wherever a pilotage district has been created by the Governor in Council, qualified pilots are licensed by the pilotage authority of the district. There are in Canada 42 pilotage districts in nine of which the Minister of Transport is the pilotage authority (see Table 20); in each of the other districts the authority is a local body appointed by the Governor in Council.

20.—Pilotage Service by Districts, Years Ended Mar. 31, 1955 and 1956

| District | 1955 | | 1956 | |
|------------------------------------|---------------|------------------------|---------------|------------------------|
| | Ships | Net Registered Tonnage | Ships | Net Registered Tonnage |
| | No. | | No. | |
| Bras d'Or Lake, N.S. | 122 | 338,690 | 96 | 257,535 |
| Sydney, N.S. | 2,325 | 3,696,995 | 2,396 | 4,152,753 |
| Halifax, N.S. | 3,091 | 11,741,065 | 3,416 | 13,689,367 |
| Saint John, N.B. | 1,275 | 3,762,258 | 1,445 | 4,048,713 |
| Quebec, Que. | 5,017 | 18,792,633 | 5,379 | 21,315,061 |
| Montreal, Que. | 8,935 | 19,776,024 | 10,632 | 24,895,502 |
| St. Lawrence-Kingston-Ottawa, Ont. | — | — | — | — |
| Churchill, Man. | 53 | 149,222 | 66 | 160,287 |
| British Columbia | 4,526 | 18,974,565 | 4,764 | 20,832,690 |
| Totals | 25,344 | 77,231,452 | 28,194 | 89,351,908 |

In addition there are 21 districts in Newfoundland under local pilotage authority. These districts are administered under Newfoundland statutes which, since the date of union with Canada (Mar. 31, 1949), come under federal jurisdiction. Part VI of the Canada Shipping Act with respect to pilotage has not been proclaimed in force in Newfoundland.

Seamen Engaged and Discharged.—Seamen engaged and discharged at Canadian ports under the provisions of the Canada Shipping Act during the years ended Mar. 31, 1947-56 are shown in Table 21.

21.—Seamen Engaged and Discharged at Canadian Ports, Years Ended Mar. 31, 1947-56

NOTE.—Figures from 1918 are given in the corresponding table of previous Year Books beginning with the 1941 edition.

| Year | Seamen Engaged | Seamen Discharged | Year | Seamen Engaged | Seamen Discharged |
|-------------------------|----------------|-------------------|-----------|----------------|-------------------|
| | No. | No. | | No. | No. |
| 1947..... | 43,973 | 42,205 | 1952..... | 43,724 | 40,664 |
| 1948..... | 59,768 | 60,793 | 1953..... | 42,723 | 36,610 |
| 1949 ¹ | 50,379 | 49,544 | 1954..... | 42,837 | 43,142 |
| 1950..... | 43,677 | 43,194 | 1955..... | 43,292 | 41,030 |
| 1951..... | 40,241 | 40,535 | 1956..... | 44,142 | 44,333 |

¹ Newfoundland included from Apr. 1, 1949.

Canadian National (West Indies) Steamships Limited.—In conformity with the Canada-West Indies Trade Agreement of 1926 (16-17 Geo. V, c. 16) the Federal Government has provided direct steamship services to the West Indies through the medium of Canadian National (West Indies) Steamships Limited.

At the end of 1956, the Canadian National Steamships owned and operated eight vessels in service between Canada and the British West Indies.

22.—Financial Statistics of Canadian National (West Indies) Steamships Limited 1947-56

NOTE.—Figures for the years 1929-38 are given in the 1942 Year Book, p. 620; for 1939-44 in the 1950 edition, p. 777; and for 1945-46 in the 1956 Year Book, p. 844.

| Year | Operating Revenues | Operating Expenses | Operating Profit or Loss | Other Income—(net) | Interest | Income Surplus or Deficit |
|-----------|--------------------|--------------------|--------------------------|--------------------|----------|---------------------------|
| | \$ | \$ | \$ | \$ | \$ | \$ |
| 1947..... | 7,857,471 | 7,028,193 | +829,278 | 266,697 | 573,298 | +522,677 |
| 1948..... | 7,964,720 | 7,320,615 | +644,105 | 85,733 | 563,794 | +166,044 |
| 1949..... | 6,595,007 | 6,582,608 | +12,399 | 88,064 | 560,961 | —460,498 |
| 1950..... | 5,124,200 | 5,725,632 | —601,432 | 133,127 | 560,462 | —1,028,767 |
| 1951..... | 6,808,478 | 6,840,054 | —31,576 | 130,368 | 565,784 | —466,992 |
| 1952..... | 7,449,247 | 7,122,971 | +326,276 | 145,065 | 475,250 | —3,909 |
| 1953..... | 4,509,342 | 5,331,788 | —822,446 | 170,866 | 475,250 | —1,126,830 |
| 1954..... | 5,105,082 | 5,424,983 | —319,901 | 166,741 | 475,250 | —628,410 |
| 1955..... | 5,946,605 | 5,995,684 | —49,079 | 77,780 | 124,665 | —95,964 |
| 1956..... | 6,125,470 | 6,052,570 | +72,900 | — | 49,619 | +23,281 |

Subsection 6.—The St. Lawrence Seaway

The St. Lawrence Seaway, in its broadest sense, will provide a deep waterway extending some 2,200 miles from the Atlantic Ocean to the Head of the Great Lakes. The waters of Lake Superior, seeking sea level, drop 602 feet through the lesser Great Lakes and the St. Lawrence River on their way from the heart of the Continent to the Atlantic Ocean. The greater part of this drop takes place in the Niagara River—now overcome by the 27-mile Welland Ship Canal with its eight locks—and in the St. Lawrence River.

The present navigation picture is as follows: (1) from the Gulf of St. Lawrence to Montreal, a distance of 1,000 miles, controlling navigation channels are 35 feet in depth; (2) from Montreal to Lake Ontario, a distance of 180 miles, controlling navigation

channels are 14 feet in depth; (3) from Lake Ontario to Lake Erie, a distance of 27 miles, controlling navigation channels are 25 feet deep; and (4) from Lake Erie to the Head of the Lakes, a distance of 970 miles, controlling navigation channels are 25 feet downbound and 21 feet upbound. Thus, between the highly developed Great Lakes section, which has a minimum channel of 21 feet, and the ocean port facilities at Montreal lie 114 miles of rapid-studded St. Lawrence River, navigable only through a chain of outmoded 14-foot canals capable of handling ships with a maximum capacity of 3,000 tons only. The Seaway project will break this bottleneck and extend 27-foot facilities from the Great Lakes to the sea. Seven new locks are required for the purpose—five being built by the St. Lawrence Seaway Authority of Canada and two by the St. Lawrence Seaway Development Corporation of the United States. These will replace 21 inadequate locks between Montreal and Lake Ontario.

Also, because Canadian Government regulations require that all bridges spanning waters navigable by ocean-going ships have a minimum overhead clearance of 120 feet, extensive modifications must be made to seven bridges that exist between Montreal and Lake St. Francis. In addition, a new high-level suspension bridge is being constructed across the south channel of the St. Lawrence River at Cornwall Island—the substructure by the Canadian Authority and the superstructure by the United States entity.

Associated with the St. Lawrence Seaway navigation project is the construction of a large electric power development in the international rapids section of the St. Lawrence River between Cornwall and Prescott. A 38,000-acre power pool will be formed by means of control dams and an international powerhouse will generate about 2,200,000 h.p. of electric energy to be shared equally by Canada and the United States. (See pp. 582-583.)

The Seaway navigation project was 75 p.c. complete at the end of 1957. The most significant event in the progress of construction up to that date was the final test, on Nov. 27, 1957, of the Iroquois Lock, the most westerly of the seven new locks. Progressively, the lock gates, fenders, other machinery and controls were installed and tested and the lock was completed by late August, three months ahead of schedule. On the day of the final test, a ship was sailed into the lock, the lock chamber filled and the ship lifted some 12 feet to the present level of the St. Lawrence River above the lock and the nearby Iroquois control dam. The Iroquois Lock will provide access for ships passing from that part of the Seaway channel being dredged (from Lake Ontario down through the Thousand Islands) to the Seaway Lake downstream. The Lake, or power pool, is being created by the Iroquois control dam, and by the Long Sault control dam and the Cornwall-Barnhart Island powerhouse about 35 miles downstream. The Iroquois Lock will be in use sometime in 1958 as will the two United States locks near Massena, N.Y., opposite Cornwall.

The concrete structure of the St. Lambert Lock near Montreal, which is the first lock of the Seaway from seaward, was completed by the end of 1957, and the Lower Beauharnois Lock at the head of Lake St. Louis during the early months of 1958. The other two Canadian locks—Côte Ste. Catherine near the Lachine Rapids and the Upper Beauharnois Lock—are scheduled for completion later in 1958. The completed Seaway will be open to navigation in the spring of 1959.

An event of interest in connection with the bridge-raising projects took place on Oct. 20, 1957. The 250-foot trans-channel span of the Jacques Cartier Bridge, near Montreal, was raised to provide the required 120-foot clearance over the Seaway channel. In the early hours of a Sunday morning, when traffic was light, hydraulic jacks moved the old span horizontally to falsework erected downstream and then moved the new span, resting on falsework upstream, into place. The work was completed in four hours.

Channel dredging taking place in Montreal Harbour, Lake St. Louis, Lake St. Francis, in the channels at Cornwall Island and in the Thousand Islands section, and in the Welland Ship Canal was proceeding on schedule at the end of 1957.

At the height of the summer construction season in 1957, more than 6,000 men were employed on the Canadian navigation facilities and about 2,000 men on the United States navigation project. The two power bodies—The Hydro-Electric Power Commission of Ontario and the Power Authority of the State of New York—employed a work force of about 10,000.

The estimated cost of the whole Seaway project is \$1,025,000,000, divided as follows: the St. Lawrence Seaway Authority, \$285,000,000; the St. Lawrence Seaway Development Corporation \$140,000,000; The Hydro-Electric Power Commission of Ontario, \$300,000,000; and the Power Authority, State of New York, \$300,000,000. By the end of 1957, the St. Lawrence Seaway Authority had awarded contracts valued at approximately \$235,000,000.

The Seaway is a self-liquidating project and costs of construction and operation are to be recovered from tolls on shipping. Tolls committees of both Canada and the United States are of the opinion that a composite toll system would present advantages for both the Seaway and its users. This system calls for two parallel tolls: a lower toll on net registered tonnage of each ship whether loaded or in ballast; and a higher toll based on the actual tonnage of cargo in each ship.

The Canadian and United States entities have come to the conclusion that ships having an over-all length of not over 730 feet and a beam of up to 75 feet can be accommodated in the Seaway, subject to the proviso that vessels exceeding 715 feet in length or 72 feet in beam should be classified in the category of vessels having characteristics which will subject them to appropriate scheduling and handling so as not to interfere with other traffic whenever the transit of such vessels is unduly delaying other shipping. They believe such an arrangement will be in the best interest of the Seaway and of its traffic.

Section 2.—Financial Statistics of Waterways

The principal statistics available on the cost of facilities for water-borne traffic consist of the record of public expenditure on waterways. Such expenditure may be classified as capital expenditure, or investment and expenditure for maintenance and operation. Revenue from operation is also recorded. The major part of the capital expenditure for the permanent improvement of waterways is provided by the Federal Government. Capital expenditure by municipalities and private capital expenditure is confined almost entirely to terminal or dockage facilities. On the other hand, investment in shipping has come almost entirely from private sources. No figures are available regarding private investment in shipping except those appearing in the reports of the operating companies that cover only a portion of the field. There are no statistics showing the revenue of ship operators from passenger and freight traffic.

Capital Expenditure.—The only figures available of federal capital expenditure on Canadian waterways are those compiled from the *Public Accounts* and the annual reports of the Departments of Transport, Public Works and Finance. It must be realized that such expenditure cannot be regarded as any indication of the present worth of the undertakings represented. The cost of building canals and other waterways and permanent works to facilitate water transportation in Canada is represented in such reports at their original book values, no deductions having been made from the cumulative totals for depreciation from year to year or for abandonment of works that have been superseded such as, for instance, the first Welland Canals. To this extent such figures are an overstatement of the present value of the works in use. The figures are further limited by the fact that they do not include the cost of maintenance and improvements or the operation of these works, such charges having been made to the consolidated deficit account as annual expenditure and not to capital account. Table 23 shows that capital expenditure on canals, marine services and miscellaneous water-transport facilities reached the grand total of \$435,000,000 by the end of March 1956, but this must be interpreted

with the above qualifications in mind. In Table 24 the capital values of the fixed assets administered by the National Harbours Board are shown as at Dec. 31, 1955 and 1956, and are additional to the capital expenditure of Table 23. Figures in Table 24 reflect the capital situation in regard to the national harbours of Canada far better than do those of Table 23 for waterways and facilities, inasmuch as they include all buildings, machinery and durable plant improvements; they also have been subject to deductions for depreciation and the scrapping or abandonment of plant and therefore more nearly approach the present value of the properties under the administration of the National Harbours Board.

23.—Capital Expenditure of the Federal Government on Canals, Marine Services and Miscellaneous Water Transport Facilities as at Mar. 31, 1955 and 1956

NOTE.—Compiled from annual reports of the Department of Transport and the *Public Accounts*.

| Item | Expenditure | | | Item | Expenditure | | |
|----------------------------|----------------------|--------------------|------------------------------|-------------------------------------|----------------------|------------------|------------------------------|
| | Years ended Mar. 31— | | Total to Mar. 31, 1956 | | Years ended Mar. 31— | | Total to Mar. 31, 1956 |
| | 1955 | 1956 | | | 1955 | 1956 | |
| | \$ | \$ | \$ | | \$ | \$ | \$ |
| Canals | | | | Miscellaneous Facilities | | | |
| Quebec Canals— | | | | Bare Point breakwater | — | — | 217,996 |
| Beauharnois (old)..... | Cr. 15,842 | Cr. 473 | 1,606,104 | Burlington Bay Canal. | — | — | 308,328 |
| Carillon and Grenville | — | — | 4,191,727 | Burlington Channel im- | — | — | 1,392,490 |
| Chambly | — | — | 780,620 | provements..... | — | — | 95,000 |
| (Richelieu R.)..... | — | — | 13,211,871 | Cape Tormentine Har- | — | — | 7,799,761 |
| Lachine..... | Cr. 19,737 | Cr. 346,483 | 75,907 | bour..... | — | — | 918,797 |
| Lake St. Francis..... | — | — | 298,176 | Esquimalt graving | — | — | 86,512 |
| Lake St. Louis..... | — | — | 7,897,119 | dock..... | — | — | 556,589 |
| Soulanges..... | — | — | 1,320,216 | Georgian Bay to Mont- | — | — | 1,164,235 |
| St. Anne..... | — | — | 735,964 | real waterway survey | — | — | 971,593 |
| St. Ours..... | — | — | | Halifax elevator site.. | — | — | 1,103,812 |
| Ontario - St. Lawrence | | | | Kingston graving dock | — | — | 16,249,020 |
| Canals— | | | | Lake St. Peter..... | — | — | 904,459 |
| Cornwall..... | — | — | 7,233,823 | Lévis graving dock.... | — | — | 134 |
| Williamsburg..... | — | — | 1,334,552 | Miscellaneous wharves. | 97,883 | — | 1,806,541 |
| Farran's Point..... | — | — | 877,090 | Port Arthur, Fort Wil- | — | — | 1,569,777 |
| Rapide Plat..... | — | — | 2,159,881 | liam and River Kam- | — | — | 481,622 |
| Galop..... | — | — | 6,143,468 | inistikwia improve- | — | — | 9,331,987 |
| Galop Channel..... | — | — | 1,039,896 | ments..... | — | — | 468,098 |
| North Channel..... | — | — | 1,995,143 | Port Colborne Harbour | — | — | 2,334,089 |
| River Reaches..... | — | — | 483,830 | Rainy River Lock and | — | — | 761,802 |
| St. Peters, N.S..... | — | — | 648,547 | Dam..... | — | — | |
| Culbute Lock and Dam | | | | Sorel Harbour improve- | — | — | |
| (Ottawa R.)..... | — | Cr. 382,391 | — | ments..... | — | — | |
| Rideau..... | Cr. 370 | Cr. 60 | 4,213,531 | St. Andrews Rapids | — | — | |
| Tay..... | — | — | 489,599 | and Red River im- | — | — | |
| St. Lawrence Ship | | | | provements..... | — | — | |
| (Surveys)..... | — | — | 133,897 | Tiffin Harbour im- | — | — | |
| Sault Ste. Marie..... | — | — | 4,935,809 | provements..... | — | — | |
| Trent..... | Cr. 1 | Cr. 1,450 | 19,947,201 | Toronto Harbour im- | — | — | |
| Murray..... | — | — | 1,248,947 | provements..... | — | — | |
| Welland Ship Canal.. | Cr. 34,803 | Cr. 47,159 | 131,690,842 | Upper St. Lawrence | — | — | |
| Prior Welland Canals. | Cr. 168 | Cr. 5,110 | 27,242,269 | River Channel im- | — | — | |
| Canals generally..... | — | — | 34,967 | provements..... | — | — | |
| Adjustment suspense.. | — | — | 165,361 | Victoria, B.C., Har- | — | — | |
| | | | | bour improvements.. | — | — | |
| | | | | Victoria, Ont., Harbou | — | — | |
| | | | | improvements..... | — | — | |
| Totals, Canals..... | Cr. 70,921 | Cr. 783,126 | 242,136,357 | Totals, Miscellaneous | 97,883 | — | 48,522,642 |
| Marine Services | | | | Summary | | | |
| Marine Service steam- | | | | Canals..... | Cr. 70,921 | Cr. 783,126 | 242,136,357 |
| ers..... | 1,999,177 | 676,831 | 27,849,191 | Marine Services..... | 6,028,538 | 3,714,768 | 144,465,873 |
| River St. Lawrence | | | | Miscellaneous facilities. | 97,883 | — | 48,522,642 |
| Ship Channel — con- | 4,029,361 | 3,037,937 | 116,616,682 | | | | |
| tract dredging..... | — | — | — | | | | |
| Totals, Marine Ser- | 6,028,538 | 3,714,768 | 144,465,873 | Grand Totals..... | 6,055,500 | 2,931,642 | 435,124,872 |
| vices..... | | | | | | | |

24.—Capital Values of Fixed Assets administered by the National Harbours Board as at Dec. 31, 1955 and 1956

NOTE.—Compiled from the annual reports of the National Harbours Board.

| Item | 1955 | 1956 | Item | 1955 | 1956 |
|--|------------|------------|---|--------------------|--------------------|
| | \$ | \$ | | \$ | \$ |
| Harbour dredging..... | 12,212,253 | 12,206,828 | Central heating plants..... | 126,383 | 126,383 |
| Real estate..... | 12,400,783 | 12,534,818 | Harbour shops..... | 309,983 | 316,861 |
| Vehicular bridges..... | 201,976 | 201,976 | Electric power systems..... | 1,392,507 | 2,202,272 |
| Roads, fences and boundaries..... | 2,188,576 | 2,227,882 | Water supply systems..... | 1,027,504 | 1,047,032 |
| Sewers and drains..... | 830,429 | 830,429 | Floating equipment..... | 2,191,457 | 2,064,192 |
| Miscellaneous structures..... | 737,192 | 723,278 | Shore equipment..... | 937,454 | 1,062,165 |
| Wharves and piers..... | 97,804,794 | 99,550,650 | Miscellaneous small plant.. | 683,126 | 611,610 |
| Permanent sheds..... | 27,779,953 | 28,466,364 | Engineering—general surveys..... | 109,441 | 119,441 |
| Shed hoists and electrical cranes..... | 406,545 | 406,545 | Works under construction.. | 3,232,852 | 11,563,048 |
| Railway systems..... | 6,695,552 | 6,616,470 | Sundry expenditure—undistributed..... | 3,769,450 | 4,339,129 |
| Grain elevator systems..... | 47,731,085 | 47,081,799 | Bridge construction, right-of-way, etc..... | 18,611,649 | 19,459,525 |
| Cold storage systems..... | 6,144,129 | 6,147,128 | | | |
| Office furniture and appliances..... | 239,059 | 248,985 | | | |
| Harbour buildings..... | 2,491,375 | 2,431,398 | Totals..... | 250,255,507 | 262,586,208 |

25.—Amounts Advanced by the Federal Government to the National Harbours Board for Capital Expenditure 1954-56

NOTE.—Compiled from the annual reports of the National Harbours Board.

| Harbours and Properties | 1954 | 1955 | 1956 | Harbours and Properties | 1954 | 1955 | 1956 |
|-------------------------|-----------|-----------|-----------|-----------------------------|------------------|------------------|-------------------|
| | \$ | \$ | \$ | | \$ | \$ | \$ |
| Halifax..... | 859,767 | 955,329 | 2,225,893 | Prescott elevator..... | — | 5,640 | 51,995 |
| Saint John..... | 1,384,263 | 519,338 | 651,168 | Port Colborne elevator..... | 27,625 | 2,047 | 79,955 |
| Chicoutimi..... | — | — | 10,000 | Churchill..... | 767,834 | 1,174,538 | 39,365 |
| Quebec..... | 802,273 | 324,707 | 1,226,388 | Vancouver..... | 258,090 | 19,846 | 139,895 |
| Three Rivers..... | 348,405 | 16,856 | 26,983 | | | | |
| Montreal..... | 3,380,559 | 1,363,999 | 7,292,150 | Totals..... | 7,823,816 | 4,382,300 | 11,743,792 |

Waterway Expenditure and Revenue on Consolidated Fund Account.—

Expenditure under this heading (Tables 26 to 28) is mainly for the operation and maintenance of various facilities for water transport but, unfortunately, the line between operation and maintenance expenditure is not as finely drawn as is desirable. Revenue in connection with waterways of the Department of Transport and the Department of Public Works is shown in Table 29.

To facilitate water transportation, the Federal Government expends annually, in addition to the recurrent expenditure shown here, a considerable amount to cover deficits of the Canadian National (West Indies) Steamships Limited and of the National Harbours Board and for mail subsidies and steamship subventions as shown in Table 31. Operating expenditure and revenue of facilities administered by the National Harbours Board are shown separately in Table 30.

26.—Expenditure on Canals Charged to Consolidated Deficit Account, Years Ended Mar. 31, 1954-56

NOTE.—Compiled from the annual reports of the Department of Transport.

| Canal | 1954 | 1955 | 1956 |
|---|------------------|------------------|------------------|
| EXPENDITURE ON IMPROVEMENTS | | | |
| | \$ | \$ | \$ |
| Main Canals— | | | |
| Quebec Canals— | | | |
| Beauharnois (old)..... | 39,997 | 2,873 | 2,606 |
| Hungry Bay Dyke..... | — | — | — |
| Lachine..... | 1,659,624 | 482,758 | 684,533 |
| Lake St. Francis..... | — | — | — |
| Quebec dredging fleet..... | 8,975 | 800 | 930 |
| Soulanges..... | 34,657 | 33,894 | 50,593 |
| Superintending engineer..... | — | — | — |
| Ontario-St. Lawrence Canals— | | | |
| Cornwall..... | 146,231 | 185,607 | 97,063 |
| Williamsburg..... | 159,715 | 79,267 | 243,618 |
| Welland Canals— | | | |
| Welland Ship..... | 386,432 | 487,384 | 431,189 |
| Prior Welland Canal..... | — | — | — |
| Sault Ste. Marie..... | 22,957 | 47,695 | 239,113 |
| Secondary Canals— | | | |
| Carillon and Grenville, Que..... | 96,794 | 37,787 | 85,061 |
| Chambly (Richelieu R.), Que..... | 13,452 | 16,503 | 25,574 |
| Rideau and Tay, Ont..... | 34,330 | 95,605 | 67,935 |
| Ste. Anne, Que..... | 1,585 | 3,664 | 2,557 |
| St. Ours (Richelieu R.), Que..... | 113 | 4,772 | 11,384 |
| St. Peters, N.S..... | — | — | 129,538 |
| Canso, N.S..... | — | — | 4,291 |
| Trent, Ont..... | 144,365 | 296,315 | 232,417 |
| Murray, Ont..... | 18,472 | 2,039 | 17,679 |
| Totals..... | 2,767,699 | 1,776,963 | 2,326,081 |
| EXPENDITURE ON OPERATION AND MAINTENANCE | | | |
| | \$ | \$ | \$ |
| Administration, Ottawa..... | 117,065 | 140,894 | 125,230 |
| Quebec Canals— | | | |
| Head Office..... | 73,591 | 68,121 | 63,850 |
| Beauharnois (old)..... | 6,899 | 6,999 | 7,432 |
| Carillon and Grenville..... | 138,252 | 143,326 | 137,085 |
| Chambly (Richelieu R.)..... | 191,712 | 207,828 | 212,962 |
| Hungry Bay and Ste. Barbe Dykes..... | 5,638 | 4,463 | 5,279 |
| Lachine..... | 839,507 | 867,568 | 917,245 |
| Quebec dredging fleet..... | 31,071 | 25,773 | 25,800 |
| Soulanges..... | 441,797 | 470,310 | 472,864 |
| Ste. Anne..... | 24,409 | 26,811 | 29,259 |
| St. Ours (Richelieu R.)..... | 35,639 | 31,192 | 31,616 |
| Ontario-St. Lawrence Canals— | | | |
| Head Office..... | 108,126 | 215,049 | 119,165 |
| Cornwall..... | 535,878 | 548,966 | 529,509 |
| Williamsburg..... | 291,775 | 293,682 | 278,090 |
| Canso, N.S..... | — | — | 22,181 |
| St. Peters, N.S..... | 42,133 | 47,977 | 46,027 |
| Rideau and Tay, Ont..... | 426,802 | 452,489 | 465,139 |
| Sault Ste. Marie, Ont..... | 176,014 | 196,522 | 195,043 |

26.—Expenditure on Canals Charged to Consolidated Deficit Account, Years Ended Mar. 31, 1954-1956—concluded

| Canal | 1954 | 1955 | 1956 |
|--|---|------------------|------------------|
| | EXPENDITURE ON OPERATION AND MAINTENANCE—concluded | | |
| | \$ | \$ | \$ |
| Trent, Ont. | 469,835 | 494,347 | 507,129 |
| Murray, Ont. | 29,291 | 31,132 | 34,395 |
| Welland, Ont. | 1,646,445 | 1,743,338 | 1,760,344 |
| St. Lawrence Ship Canal surveys, etc. | 596,765 | Cr. 1,352,589 | — |
| Totals. | 6,228,644 | 4,664,198 | 5,985,644 |

27.—Marine Service Expenditure Charged to Consolidated Deficit Account, Years Ended Mar. 31, 1955 and 1956

NOTE.—Compiled from annual reports of the Department of Transport.

| Marine Services | 1955 | 1956 | Marine Services | 1955 | 1956 |
|--|-----------|-----------|---|-------------------|-------------------|
| | \$ | \$ | | \$ | \$ |
| Marine Services— | | | Steamship Inspection. | 627,133 | 704,017 |
| Administration, including | | | Marine Service Steamers— | | |
| Aidies to navigation (construction, maintenance and supervision) | 627,692 | 645,728 | Administration, operation and maintenance. | 6,175,123 | 6,768,318 |
| | 5,788,506 | 5,990,819 | Marine Signal Service. | 157,709 | 117,821 |
| Nautical Services— | | | River St. Lawrence Ship | | |
| Administration, operation and maintenance, including grants. | 502,527 | 455,505 | Channel Service— | | |
| Construction. | 40,327 | — | Administration, operation and maintenance. | 757,675 | 747,645 |
| Pilotage Service— | | | Surveys and investigations. . | 25,039 | — |
| Administration. | 526,098 | 613,599 | Totals. | 15,267,035 | 16,073,285 |
| Construction. | 37,406 | 28,033 | | | |
| Pensions to former pilots. | 1,800 | 1,800 | | | |

28.—Expenditure on Waterways (Harbours, Rivers, Roads and Bridges) Charged to Consolidated Fund Account by Department of Public Works, Years Ended Mar. 31, 1955

NOTE.—Compiled from the annual reports of the Departments concerned by the Comptroller of the Treasury, Department of Finance. Excludes expenditures on harbours administered by the National Harbours Board as shown in Table 30.

| Province or Territory | Dredging ¹ | Construction | Improvements and Repairs | Staff and Sundries | Total |
|---------------------------------------|-----------------------|-------------------|--------------------------|--------------------|-------------------|
| | \$ | \$ | \$ | \$ | \$ |
| Newfoundland. | 600,827 | 857,882 | 454,514 | 221,785 | 2,135,008 |
| Prince Edward Island. | 439,762 | 623,906 | 156,529 | 100,754 | 1,320,951 |
| Nova Scotia. | 1,271,640 | 3,253,684 | 600,135 | 511,505 | 5,636,964 |
| New Brunswick. | 433,199 | 587,206 | 235,644 | 423,114 | 1,679,163 |
| Quebec. | 731,376 | 3,665,407 | 679,651 | 600,198 | 5,676,632 |
| Ontario. | 1,486,128 | 3,701,059 | 466,036 | 423,730 | 6,076,953 |
| Manitoba. | 193,766 | 75,895 | 54,359 | 116,187 | 440,207 |
| Saskatchewan. | — | 40,817 | 856 | 1,613 | 43,286 |
| Alberta. | 65,583 | 15,624 | 4,464 | 95,940 | 181,611 |
| British Columbia. | 1,682,761 | 2,300,333 | 461,600 | 1,159,979 | 5,604,669 |
| Yukon and Northwest Territories. | 72,290 | 110,467 | 32,932 | 3,329 | 219,018 |
| Totals. | 6,977,332 | 15,232,280 | 3,146,720 | 3,658,130 | 29,014,462 |

¹ Expenditure for dredging plants has been included in dredging column for each province.

29.—Revenue of the Federal Government in Connection with Waterways, Years Ended Mar. 31, 1955 and 1956

NOTE.—Compiled from annual reports of the Department of Transport.

| Item | 1955 | 1956 | Item | 1955 | 1956 |
|---|------------------|------------------|---|------------------|------------------|
| | \$ | \$ | | \$ | \$ |
| Department of Transport | | | MARINE SERVICES—concluded | | |
| CANAL SERVICES | | | Miscellaneous..... | 19,246 | 25,061 |
| Lachine..... | 351,562 | 359,876 | Refunds previous year's expenditure..... | 26,763 | 81,596 |
| Soulages..... | 3,987 | 2,174 | TOTALS, MARINE SERVICES..... | 692,622 | 926,890 |
| Chambly..... | 4,297 | 5,135 | BOARD OF TRANSPORT COMMISSIONERS | | |
| Ste. Anne..... | 269 | 279 | Licences to ships..... | 1,911 | 1,896 |
| St. Ours..... | 395 | 429 | Sale of publications..... | 523 | 726 |
| Carillon and Grenville..... | 866 | 1,287 | Refunds of previous year's expenditure..... | 38 | 9 |
| Beauharnois..... | 49,265 | 49,016 | TOTALS, BOARD OF TRANSPORT COMMISSIONERS..... | 2,472 | 2,631 |
| Cornwall..... | 58,453 | 50,579 | Totals, Department of Transport..... | 2,223,502 | 2,692,395 |
| St. Lawrence Waterways-Cornwall area..... | — | 3,343 | Department of Public Works | | |
| Williamsburg..... | 12,600 | 13,082 | EARNINGS OF DRY DOCKS | | |
| St. Peters..... | 703 | 692 | Champlain Dock, Lauzon..... | 49,372 | 76,450 |
| Canso..... | — | 20 | Lorne Dock, Lauzon..... | 39,260 | 27,615 |
| Welland..... | 833,302 | 1,085,532 | Esquimalt new dock..... | 119,227 | 200,245 |
| Sault Ste. Marie..... | 3,218 | 3,647 | Selkirk repair slip..... | 2,406 | 1,440 |
| Rideau and Tay..... | 18,830 | 19,798 | TOTALS, EARNINGS..... | 210,265 | 305,750 |
| Trent..... | 94,602 | 96,886 | WORKS AND PLANTS LEASED | | |
| Murray..... | 917 | 1,220 | Kingston dry dock..... | 24,200 | 12,100 |
| Sale of publications..... | 156 | 2 | Ferry privileges..... | 414 | 359 |
| Interest on loan to City of Montreal (St. Remi Tunnel)... | 43,713 | 42,813 | Dredges and plants..... | 50,257 | 70,684 |
| Miscellaneous..... | 53 | 20 | TOTALS, LEASED..... | 74,871 | 83,143 |
| Refunds of previous year's expenditure..... | 51,220 | 27,044 | Rents from water lots, etc..... | 20,029 | 47,167 |
| TOTALS, CANAL SERVICES..... | 1,528,408 | 1,762,874 | Refunds against expenditure reported in previous years..... | 80,784 | 80,468 |
| MARINE SERVICES | | | Sundry receipts..... | 9,868 | 9,587 |
| Fines and forfeitures..... | 11,258 | 5,513 | Totals, Dept. of Public Works | 395,817 | 526,115 |
| Steamship inspection..... | 165,375 | 160,920 | | | |
| Wharf revenue..... | 312,817 | 432,487 | | | |
| Harbour dues..... | 78,679 | 147,843 | | | |
| Measuring surveyor's fees..... | 356 | 396 | | | |
| Examinations — masters' and mates' fees..... | 7,036 | 6,806 | | | |
| Pilots' licence fees (pilotage)..... | 366 | 251 | | | |
| Pilotage dues..... | 9,771 | 12,859 | | | |
| Shipping dues..... | 4,044 | 4,142 | | | |
| Marine steamer earnings..... | 10,408 | 20,335 | | | |
| Signal station dues..... | 1,450 | 1,513 | | | |
| Rentals—water lots and light-house sites..... | 31,651 | 24,257 | | | |
| Sale of land, buildings, etc..... | 11,820 | 1,312 | | | |
| Merchant seamen's identity certificates..... | 1,582 | 1,599 | | | |

30.—Operating Revenue and Expenditure of Harbours, Elevators and Bridges under the National Harbours Board 1954-56

| Harbour and Year | Operating Revenue | Operating Expenditure | Operating Income | Harbour and Year | Operating Revenue | Operating Expenditure | Operating Income |
|--------------------|-------------------|-----------------------|------------------|----------------------|-------------------|-----------------------|------------------|
| | \$ | \$ | \$ | | \$ | \$ | \$ |
| Halifax— | | | | Montreal— | | | |
| 1954..... | 1,665,862 | 1,208,840 | 457,022 | 1954..... | 8,166,370 | 4,609,110 | 3,557,260 |
| 1955..... | 1,988,469 | 1,363,173 | 625,296 | 1955..... | 8,308,616 | 4,680,740 | 3,627,876 |
| 1956..... | 1,909,248 | 1,434,250 | 474,998 | 1956..... | 9,761,604 | 5,365,474 | 4,396,130 |
| Saint John— | | | | Three Rivers— | | | |
| 1954..... | 755,026 | 743,135 | 11,891 | 1954..... | 344,180 | 52,668 | 291,512 |
| 1955..... | 875,819 | 845,450 | 30,369 | 1955..... | 349,418 | 74,556 | 274,862 |
| 1956..... | 965,767 | 910,423 | 55,344 | 1956..... | 393,156 | 179,035 | 214,121 |

**30.—Operating Revenue and Expenditure of Harbours, Elevators and Bridges
under the National Harbours Board 1954-56—concluded**

| Harbour and Year | Operating Revenue | Operating Expend- iture | Operating Income | Harbour and Year | Operating Revenue | Operating Expend- iture | Operating Income |
|------------------------------------|----------------------|-------------------------------|---------------------|--|----------------------|-------------------------------|---------------------|
| \$ | \$ | \$ | | | \$ | \$ | \$ |
| Port Colborne Elevator— | | | | Jacques Cartier Bridge (Montreal) | | | |
| 1954..... | 799,384 | 493,400 | 305,984 | 1954..... | 1,811,523 | 220,917 | 1,590,606 |
| 1955..... | 766,666 | 496,958 | 269,708 | 1955..... | 2,100,393 | 233,000 | 1,867,393 |
| 1956..... | 869,683 | 588,078 | 281,605 | 1956..... | 2,154,240 | 278,257 | 1,875,983 |
| Prescott Elevator— | | | | Churchill— | | | |
| 1954..... | 1,035,271 | 397,744 | 637,527 | 1954..... | 732,762 | 623,025 | 109,736 |
| 1955..... | 995,449 | 430,200 | 565,249 | 1955..... | 782,726 | 710,606 | 72,120 |
| 1956..... | 1,086,880 | 488,972 | 597,908 | 1956..... | 1,074,722 | 745,554 | 329,168 |
| Chicoutimi— | | | | Vancouver— | | | |
| 1954..... | 101,304 | 29,523 | 71,781 | 1954..... | 3,075,642 | 1,764,794 | 1,310,848 |
| 1955..... | 105,651 | 33,150 | 72,501 | 1955..... | 3,002,061 | 1,824,124 | 1,177,937 |
| 1956..... | 110,108 | 27,944 | 82,164 | 1956..... | 3,654,085 | 2,392,875 | 1,261,210 |
| Quebec— | | | | | | | |
| 1954..... | 1,771,347 | 1,376,327 | 395,020 | | | | |
| 1955..... | 1,908,450 | 1,368,339 | 540,111 | | | | |
| 1956..... | 2,078,286 | 1,955,500 | 122,786 | | | | |

Shipping Subsidies.—Table 31 shows the amounts of steamship subventions paid in connection with contracts made under statutory authority for coastal and inland water-shipping services. The payment of these subventions is administered by the Canadian Maritime Commission.

31.—Steamship Subventions, Years Ended Mar. 31, 1956 and 1957

| Services | 1956 | 1957 |
|---|------------------|------------------|
| \$ | \$ | \$ |
| Pacific Coast Services— | | |
| Vancouver and northern ports of British Columbia and Queen Charlotte Islands..... | 325,000 | 562,000 |
| Eastern Services— | | |
| Baddeck and Iona, N.S..... | 14,500 | 15,000 |
| Campobello, N.B., and Lubec, Maine..... | 8,600 | 8,600 |
| Cross Point, Que., and Campbellton, N.B..... | 50,000 | 40,000 |
| Dalhousie, N.B., and Miguasha, Que..... | 19,000 | 19,000 |
| Grand Manan and the mainland, N.B..... | 95,000 | 95,000 |
| Halifax, Canso and Guysborough, N.S..... | 23,000 | 26,000 |
| Halifax, Torbay, Ile Madame and ports on west coast of Cape Breton Island, N.S.... | 20,000 | 23,000 |
| Ile-aux-Coudres and Les Eboulements, Que..... | 15,000 | 15,000 |
| Ile-aux-Grues and Montmagny, Que. (summer)..... | 2,500 | 3,300 |
| Ile-aux-Grues and Montmagny, Que. (winter)..... | 1,700 | 1,700 |
| Mulgrave and Canso, N.S..... | 82,000 | 54,900 |
| Mulgrave, Queensport and Ile Madame, N.S..... | 30,000 | 30,000 |
| Murray Bay and north shore St. Lawrence, Que. (winter)..... | 35,000 | 50,000 |
| Owen Sound and ports on Manitoulin Island and Georgian Bay, Ont..... | 76,840 | 95,255 |
| Pelée Island and the mainland, Ont..... | 35,000 | 42,500 |
| Pictou, Mulgrave and Cheticamp, N.S..... | 13,500 | 13,500 |
| Pictou, N.S., Charlottetown, P.E.I., and Magdalen Islands, Que..... | 120,000 | 120,000 |
| Prescott, Ont., and Ogdensburg, N.Y..... | 8,782 | — |
| Prince Edward Island and Newfoundland..... | — | 80,000 |
| Prince Edward Island and Nova Scotia..... | 158,000 | 163,000 |
| Quebec, Natashquan and Harrington, Que., and other ports on the north shore, Gulf of St. Lawrence..... | 470,000 | 470,000 |
| Quebec or Montreal, Gaspé, Que., and Magdalen Islands, calling at way ports..... | 156,500 | 156,500 |
| Rimouski, Matane and ports on the north shore of the St. Lawrence, Que..... | 125,500 | 125,500 |
| Rivière-du-Loup and St. Simeon, Que..... | 21,000 | 21,000 |
| Saint John, N.B., Westport and Yarmouth, N.S., calling at way ports..... | 33,000 | 33,000 |
| Sydney and Bay St. Lawrence, Cape Breton Island, calling at way ports..... | 45,000 | 45,000 |
| Yarmouth, N.S., and Boston, Mass..... | 40,923 | — |
| Newfoundland Coastal Steamship Services..... | 2,117,847 | 2,501,038 |
| Totals..... | 4,143,192 | 4,809,793 |

¹ The annual subsidy for this service is \$15,000 refundable in whole or in part. Full refund was made for the year ended Mar. 31, 1957, as well as full refund of the \$8,782 shown for 1956.

PART V.—CIVIL AIR TRANSPORT*

Section 1.—Administration and Development

Historical Developments.—Canada's aviation history dates back to 1909 when the *Silver Dart*, piloted by Jack McCurdy (Hon. J. A. D. McCurdy, former Lieutenant-Governor of Nova Scotia), flew at Baddeck, N.S. This was the first aeroplane flight by a British subject in the British Empire.

There was little aviation development in Canada until World War I. Following the War, many of Canada's wartime aviators assisted in developing air transportation services into inaccessible areas, air forestry patrols and intercity air services. During this period the flying clubs movement received government assistance in the training of pilots and engineers required by Canada's civil aviation industry.

World War II was a period of intensive construction of airports and aerodromes to meet the requirements for training of airmen under the British Commonwealth Air Training Plan. At the end of the War, many Service-trained Canadian airmen turned to commercial flying and were absorbed by existing operating companies or helped to develop other flying services. Transatlantic air services were inaugurated by the Department of Transport during the War and were turned over to Trans-Canada Air Lines which had come into being by Act of Parliament in 1937 to provide for the development of a government-controlled transcontinental air service for regular scheduled operations. Canadian Pacific Air Lines was created by the amalgamation of small commercial operators for the servicing of Canada's northland. In 1949 the Canadian Pacific Air Lines was designated to provide transpacific services on behalf of Canada. Current operations of TCA and CPA are covered on pp. 870-871.

The Control of Civil Aviation.—The control of civil aviation in Canada is under the jurisdiction of the Federal Government and is administered under the authority of the Aeronautics Act 1919, and amendments thereto. The Aeronautics Act is in three parts. Broadly speaking, Part I deals with the technical side of civil aviation comprising matters of registration of aircraft, licensing of airmen, the establishment and maintenance of airports and facilities for air navigation, air traffic control, accident investigation and the safe operation of aircraft. This Part of the Act is administered by the Director of Civil Aviation under the supervision of the Director General of Air Services, Department of Transport. Part II of the Act deals with the social and economic aspects of commercial air services and assigns to the Air Transport Board certain regulatory functions of commercial air services (see p. 813). Part III deals with matters of government internal administration in connection with the Act.

Weather Services.—Weather services are provided by the Meteorological Branch of the Department of Transport to meet the increasing demands of aviation, agriculture, industry and the general public. The expanding weather services required by the Department of National Defence both in Canada and with Canadian Armed Forces abroad are a major responsibility of the Branch. In 1956 a Central Analysis Office was operated in Montreal together with 51 forecast offices across Canada and four in Europe. Forecast offices are linked by teletype, radio teletype and a national facsimile system. As of July 1, 1956, the Branch maintained 250 synoptic stations taking six-hourly observations, a

* Sections 1 and 2 of this Part were revised in the Department of Transport and Section 3, except where otherwise indicated, in the Transportation Section, Public Finance and Transportation Division, Dominion Bureau of Statistics. For military air transportation, see Chapter XXVIII on Defence of Canada.

network of 31 radiosonde stations (including five in the extreme Arctic operated jointly with the United States) taking upper air soundings, 71 stations recording upper winds and 1,387 climatological stations. One ocean weather station taking weather observations every three hours in the Pacific, 1,000 miles west of Vancouver, is maintained under international agreement.

Air Industries and Transport Association.—Commercial flying schools that are members of the Air Industries and Transport Association numbered 35 at the end of 1955. During 1955 the number of students instructed and graduated as private pilots was 498, the number graduated as commercial pilots was 109, and the number of instructional hours flown was 40,900.

Royal Canadian Flying Clubs.—At the end of 1955 there were 38 flying clubs connected with the Royal Canadian Flying Clubs Association. The total membership was 7,765 and the aircraft available for instructional purposes numbered 143. During the year 1,120 students were instructed and graduated as private pilots and 83 as commercial pilots. Instructional hours of flying totalled 82,596.

International Air Agreements.—The position of Canada in the field of aviation as well as its geographical location makes imperative co-operation with other nations of the world engaged in international civil aviation. Canada took a major part in the original discussions that led to the establishment of the International Civil Aviation Organization (ICAO) which has headquarters at Montreal, Que. A special article on The International Civil Aviation Organization and Canada's Participation Therein appeared in the 1952-53 Year Book, pp. 820-827.

In recent years Canada has been a signatory to agreements concerning civil aviation with Australia, New Zealand, Belgium, Denmark, France, Ireland, Japan, Mexico, the Netherlands, Norway, Peru, Portugal, Sweden, the United Kingdom and the United States.

Section 2.—Air Services

Air Transport Services.—These services are grouped into two broad classes—Scheduled Services and Non-scheduled Services. The first group provides regular point-to-point service on scheduled advertised routes and the second group includes:—

- (1) Specific Point Services from a designated base to specific points on the basis of unit rates that may be undertaken as the traffic warrants and that are not on a time schedule;
- (2) Chartered Services operated on the basis of the private chartering of an entire aircraft for a specific trip;
- (3) Contract Air Services which operate on one or more specific contracts—these do not operate on a time schedule nor need the contractor take the entire space of the aircraft; and
- (4) Specialty Air Services concerned with large-scale forestry and utility surveys according to some specific agreement.

Trans-Canada Air Lines.—During 1956, TCA flew 1,191,784,000 passenger-miles, carrying 2,072,912 passengers. Ton-miles of air freight totalled 11,928,000, air express 2,548,000, and mail 8,613,000. In April 1955, TCA began operation of Viscount aircraft, being the first airline in North America to place turbine-propeller aircraft in service. Orders have been placed for four Douglas DC-8 jet airliners for use on long routes and 20 Vickers Vikings, large propeller-turbine aircraft, for medium-range operations, the objective being an all-turbine powered fleet by 1961.

At the end of 1956, TCA employed 8,788 persons, had a fleet consisting of nine Super Constellations, 18 Viscounts, 21 North Stars and 24 DC-3's, flying 25,187 route-miles and serving more than 60 communities in Canada, as well as points in the United States, the British Isles, France, Germany, Bermuda and the Caribbean Islands.

1.—Passenger, Freight and Mail Traffic of Trans-Canada Air Lines 1947-56

Source: Trans-Canada Air Lines Annual Report.

| Year | Revenue Passenger Traffic ¹ | | Revenue Commodity Traffic ² | | Mail Traffic |
|-----------|--|-----------------|--|------------|--------------|
| | No. | passenger-miles | lb. | ton-miles | ton-miles |
| 1947..... | 427,967 | 179,808,562 | 2,041,315 | 764,105 | 1,275,909 |
| 1948..... | 532,555 | 249,575,544 | 4,313,297 | 1,608,102 | 2,294,088 |
| 1949..... | 648,574 | 310,699,767 | 5,471,013 | 2,160,644 | 3,403,810 |
| 1950..... | 790,808 | 379,605,810 | 9,518,000 | 3,585,775 | 3,644,752 |
| 1951..... | 930,691 | 450,840,623 | 10,826,333 | 3,861,583 | 3,969,371 |
| 1952..... | 1,132,518 | 653,961,415 | 19,757,969 | 7,042,427 | 4,843,052 |
| 1953..... | 1,307,810 | 759,319,800 | 22,996,531 | 7,947,113 | 5,373,841 |
| 1954..... | 1,438,349 | 852,475,532 | 24,044,347 | 10,192,705 | 6,942,299 |
| 1955..... | 1,682,195 | 969,392,395 | 30,889,383 | 12,175,433 | 7,704,144 |
| 1956..... | 2,072,912 | 1,191,784,000 | 35,789,457 | 14,476,000 | 8,613,000 |

¹ Includes non-scheduled service.² Includes excess baggage and express.**2.—Operating Revenue and Expenditure of Trans-Canada Air Lines 1947-56**

SOURCE: Trans-Canada Air Lines Annual Report.

| Year | Passenger | Freight ¹ | Mail | Operating Revenue ² | Operating Expenditure | Operating Surplus |
|-----------|------------|----------------------|-----------|--------------------------------|-----------------------|-------------------|
| | \$ | \$ | \$ | \$ | \$ | \$ |
| 1947..... | 10,450,524 | 534,359 | 3,808,197 | 15,297,346 | 16,796,492 | -1,499,146 |
| 1948..... | 14,469,578 | 888,917 | 4,648,775 | 20,866,936 | 21,624,056 | - 757,120 |
| 1949..... | 19,460,395 | 1,161,612 | 5,400,000 | 26,523,969 | 27,472,728 | - 948,759 |
| 1950..... | 24,183,501 | 1,667,827 | 5,400,000 | 31,810,684 | 31,318,613 | + 492,071 |
| 1951..... | 28,666,505 | 1,913,703 | 5,741,000 | 48,010,301 | 43,336,120 | +4,674,181 |
| 1952..... | 42,022,616 | 3,730,521 | 7,698,641 | 55,057,708 | 52,744,741 | +2,312,967 |
| 1953..... | 48,242,942 | 4,111,456 | 7,786,119 | 62,236,564 | 61,433,700 | + 802,864 |
| 1954..... | 53,123,868 | 4,705,513 | 8,371,344 | 68,764,252 | 67,731,512 | +1,032,740 |
| 1955..... | 61,105,243 | 6,015,910 | 8,297,605 | 77,428,254 | 76,770,922 | + 657,332 |
| 1956..... | 74,478,516 | 6,769,395 | 8,869,934 | 91,306,046 | 89,197,115 | +2,108,931 |

¹ Express and excess baggage.² Includes other revenue.

Canadian Pacific Air Lines Limited.—CPA operates scheduled domestic services over 9,354 route-miles. Overseas routes operate from Vancouver to Australia, New Zealand, Honolulu and Fiji on the South Pacific service; the North Pacific serves Tokyo and Hong Kong via the Great Circle route through the Aleutian Islands. In September 1955, CPA took over the Trans-Canada Air Lines Mexico City route and later extended the service to Lima in Peru and Buenos Aires in Argentina. In 1957, the Company launched a new air link between Toronto, Montreal, and Lisbon in Portugal. Flight frequency on CPA's polar route from Vancouver to Amsterdam, inaugurated in 1955, was increased to three a week. In 1956, CPA flew 272,718 revenue passengers a total of 252,645,211 revenue passenger-miles. Revenue cargo amounted to 4,871,657 ton-miles and mail to 2,863,878 lb.

Independent Air Lines.—In addition to Trans-Canada Air Lines and Canadian Pacific Air Lines Limited, there are four other domestic airlines licensed to operate scheduled services in Canada: Trans-Air Limited, Winnipeg, Man.; Maritime Central Airways Limited, Charlottetown, P.E.I.; Pacific Western Airlines Limited, Vancouver, B.C.; and Quebecair Incorporated, Rimouski, Que.

Licensed domestic air carriers operating in Canada held valid operating certificates at Dec. 31, 1956, covering 42 scheduled, 98 flying-training and 658 non-scheduled and specialty services. Non-scheduled services are operated by the majority of the independent airlines. These services provide effective access to sections of Canada that are inaccessible by other means of transportation and act as feeders to the scheduled airlines. They also provide specialty services such as recreational flying, aerial photography and surveying, aerial pest control and aerial advertising.

Commonwealth and Foreign Scheduled Commercial Air Services.—At the end of December 1957, there were 16 Commonwealth and foreign air carriers holding valid Canadian operating certificates and licences covering international scheduled commercial air services operating into Canada, as follows:—

Air France (Compagnie Nationale Air France) operates between points in Metropolitan France and Montreal, Que., Canada, direct or via Shannon, Ireland; Keflavik, Iceland; or the Azores and Gander, Nfld., Canada; and New York, N.Y., and Chicago, Ill., U.S.A.

American Airlines, Inc., operates between Toronto, Ont., Canada, and New York, N.Y./Newark, N.J., U.S.A., direct or via Buffalo, N.Y., U.S.A.

British Overseas Airways Corp., operates between London, England, Gander, Nfld., and Montreal, Que., Canada; and Detroit, Mich., U.S.A.; and between London, England, Montreal, Que., Canada, and Nassau, Bahamas; and between London, England, Gander, Nfld., and Bermuda.

Eastern Air Lines, Inc. operates between the terminals Ottawa, Ont., Canada, and Montreal, Que., Canada, and New York, N.Y., U.S.A., direct or via Burlington, Vt., U.S.A.; and between the terminals Ottawa, Ont., and Montreal, Que., Canada, and Washington, D.C., U.S.A., direct or via Massena/Syracuse, N.Y., U.S.A.

KLM Royal Dutch Airlines operates between the terminals Amsterdam, The Netherlands, and Montreal, Que., Canada; and between the terminals Montreal, Que., Canada, and Willemstad, Curaçao, Netherlands Antilles.

Lufthansa German Airlines operates between points abroad and Montreal, Que., Canada, and Chicago, Ill., U.S.A.

Northeast Airlines, Inc. operates between Montreal, Que., Canada, and Boston, Mass., U.S.A., via Burlington, Vt., Montpelier-Barre, Vt., White River Junction, Vt., (Lebanon Airport, N.H.), and Concord, N.H., U.S.A.

Northwest Airlines, Inc. operates between Winnipeg, Man., Canada, and Fargo, N.D., U.S.A., and between Minneapolis/St. Paul, Minn., U.S.A., Edmonton, Alta., Canada, Anchorage, Alaska, and beyond.

Pan American World Airways Inc. operates between Seattle, Wash., U.S.A., and Fairbanks, Alaska, with points of call at Juneau and Annette Island, Alaska, and Whitehorse, Y.T., Canada, and between the U.S.A., Gander, Nfld., Canada, and Europe.

Qantas Empire Airways Ltd. operates between Sydney, Australia, San Francisco, Cal., U.S.A., and Vancouver, B.C., Canada.

Sabena Belgian World Airlines operates between Brussels, Belgium, and New York, N.Y., U.S.A., via Shannon, Ireland, and Montreal, Que., Canada.

Scandinavian Airlines System operates between Stockholm, Sweden, Oslo, Norway, Copenhagen, Denmark, Prestwick, Scotland, Gander, Nfld., Canada, and New York, N.Y., U.S.A.

Seaboard and Western Airlines, Inc. operates between points in the United States, Gander, Nfld., Canada, and beyond.

TWA (Trans-World Airlines, Inc.) operates between points in the United States, Gander, Nfld., Canada, and points abroad.

United Air Lines, Inc. operates between Vancouver, B.C., Canada, and Seattle, Wash., U.S.A., via Bellingham, Wash., U.S.A.

Western Air Lines, Inc. operates between Great Falls, Mont., U.S.A., Cut Bank, Mont., U.S.A., and Lethbridge, Alta., and Edmonton, Alta., Canada, via Calgary and Penhold, Alta., Canada.

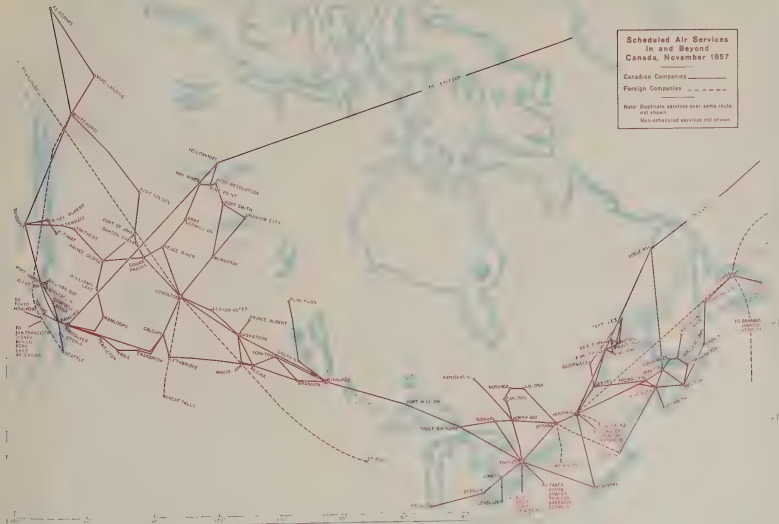
**Scheduled Air Services
in and Beyond
Canada, November 1957**

Canadian Companies —————

Foreign Companies - - - - -

Note: Duplicate services over same route
not shown

Not-scheduled services not shown



Section 3.—Civil Aviation Statistics

Ground Facilities.—Aircraft landing areas in Canada are classified in Table 3 by administrative agency. Instrument Landing Systems (ILS), designed to facilitate safe landings under low visibility conditions, have been installed at 20 airports and nine of them are regular ports of call for international commercial air services.

3.—Aerodromes by Province as at July 31, 1957

NOTE.—An aerodrome is defined by the Air Regulations 1951 as: a defined area on land or water (including any buildings, installations and equipment) intended to be used wholly or in part for the arrival, departure, movement and servicing of aircraft. This table was compiled by the Aeronautical Charts Section, Department of Mines and Technical Surveys. The aerodromes included are in usable condition.

| Operator | Nfld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | N.W.T. | Yukon | Canada |
|--------------------------------|-------|--------|------|------|------|------|------|-------|-------|------|--------|-------|--------|
| Landing Areas | | | | | | | | | | | | | |
| Canadian Pacific Air Lines— | | | | | | | | | | | | | |
| Land..... | — | — | — | — | — | — | — | — | 1 | — | — | — | 1 |
| Water..... | 1 | — | — | — | 2 | 5 | 5 | 1 | 4 | — | 4 | 1 | 23 |
| Department of Northern Affairs | | | | | | | | | | | | | |
| and National Resources— | | | | | | | | | | | | | |
| Land..... | — | — | — | — | — | — | — | 2 | 2 | — | — | 2 | 6 |
| Water..... | — | — | — | — | — | — | — | — | 1 | — | 6 | 2 | 9 |
| Department of Transport— | | | | | | | | | | | | | |
| Land..... | 2 | 1 | 3 | 1 | 10 | 33 | 6 | 7 | 7 | 22 | 10 | 3 | 105 |
| Water..... | — | — | — | — | — | — | — | — | — | 2 | 4 | — | 6 |
| Municipal— | | | | | | | | | | | | | |
| Land..... | 1 | — | 2 | 2 | 10 | 17 | 5 | 9 | 10 | 17 | — | — | 74 |
| Water..... | — | — | — | — | — | 2 | — | — | 1 | 4 | — | — | 7 |
| Provincial— | | | | | | | | | | | | | |
| Land..... | 1 | — | — | — | 1 | — | — | 2 | — | 1 | — | 4 | 9 |
| Water..... | — | — | — | — | — | 18 | 6 | 2 | — | — | — | — | 26 |
| Private— | | | | | | | | | | | | | |
| Land..... | — | 1 | — | 4 | 18 | 27 | 3 | 6 | 7 | 4 | 4 | 4 | 78 |
| Water..... | 2 | — | — | — | 21 | 33 | 12 | 1 | 3 | 5 | 4 | — | 81 |
| Royal Canadian Air Force— | | | | | | | | | | | | | |
| Land..... | 2 | 1 | 2 | 3 | 6 | 12 | 7 | 3 | 9 | 5 | 1 | 2 | 53 |
| Water..... | 1 | — | — | — | — | 2 | — | — | — | 1 | 3 | — | 7 |
| Royal Canadian Navy— | | | | | | | | | | | | | |
| Land..... | — | — | 1 | — | — | — | — | — | — | — | — | — | 1 |
| Water..... | — | — | 1 | — | — | — | — | — | — | — | — | — | 1 |
| Canadian Army— | | | | | | | | | | | | | |
| Land..... | — | — | — | — | — | — | — | — | — | 3 | — | 5 | 8 |
| Water..... | — | — | — | — | — | — | — | — | — | — | — | — | — |
| United States Air Force— | | | | | | | | | | | | | |
| Land..... | 1 | — | — | — | — | — | — | — | — | — | — | — | 1 |
| Water..... | — | — | — | — | — | — | — | — | — | — | — | — | — |
| United States Navy— | | | | | | | | | | | | | |
| Land..... | 1 | — | — | — | — | — | — | — | — | — | — | — | 1 |
| Water..... | 1 | — | — | — | — | — | — | — | — | — | — | — | 1 |
| Totals, Landing Areas— | | | | | | | | | | | | | |
| Land..... | 8 | 3 | 8 | 10 | 45 | 89 | 22 | 29 | 36 | 52 | 15 | 20 | 337 |
| Water..... | 5 | — | 1 | — | 23 | 60 | 23 | 4 | 9 | 12 | 21 | 3 | 161 |
| Auxiliary Facilities | | | | | | | | | | | | | |
| Hard-surfaced aerodromes— | | | | | | | | | | | | | |
| Land..... | 5 | 2 | 8 | 7 | 22 | 44 | 13 | 13 | 15 | 23 | 3 | 2 | 157 |
| Lighted aerodromes— | | | | | | | | | | | | | |
| Land..... | 6 | 2 | 4 | 4 | 21 | 41 | 10 | 12 | 16 | 23 | 11 | 3 | 153 |

Air Traffic Control.—The primary functions of Air Traffic Control Service of the Department of Transport are to expedite and maintain an orderly flow of air traffic and to prevent collision between aircraft operating within controlled airspace and between aircraft and obstructions on the movement area of controlled airports. This is accomplished through airport control, approach control and area control services, together with flight information, alerting for search and rescue, customs notification and aircraft identification. These services are described as follows:—

Airport Control is designed particularly to provide air-traffic control service in the vicinity of major civil airports where the volume and type of aircraft operations, together with weather conditions and other factors, indicate its need in the interest of safety. The service includes the control of pedestrians and vehicles on the manoeuvring area of the airport. Control is effected by means of direct radiotelephone communication or visual signals to aircraft and surface vehicles on and in the vicinity of controlled airports. The control towers are located at Patricia Bay, Port Hardy and Vancouver, B.C.; Lethbridge, Calgary and Edmonton, Alta.; Saskatoon and Regina, Sask.; Winnipeg, Man.; the Lakehead, Windsor, London, Toronto, Toronto Island, Ottawa and North Bay, Ont.; Montreal, Cartierville, Quebec, Val d'Or, Mont Joli and Sept-Îles, Que.; Moncton and Saint John N.B.; Sydney, N.S.; and Gander, Nfld. Most of these control towers are in continuous operation but a few provide 16-hour daily service only.

Approach Control is provided by the North Bay and Ottawa approach control towers. This service is in addition to the regular airport control service provided at these locations. Approach control service consists of the provision of standard IFR separation to aircraft operating in accordance with the Instrument Flight Rules within the local approach control area of the airport.

Area Control is designed particularly to provide air-traffic control service to aircraft operating within controlled airspace during weather conditions which prevent a pilot from seeing other aircraft or obstructions and necessitate his reliance on instruments to conduct the flight. Area control centres are located at Vancouver, B.C.; Edmonton, Alta.; Winnipeg, Man.; Toronto, Ont.; Montreal, Que.; Moncton, N.B.; and Goose and Gander, Nfld. Each centre is connected with the control towers, radio range stations and operations offices within its area by means of an extensive system of local and long-line interphone or radio circuits and through the radio communication facilities available at these offices to all aircraft requiring area control service. Each area control centre is similarly connected with the adjacent centres, including centres in the United States, for the purpose of co-ordinating the control of aircraft operating through more than one control area. This communications system permits each centre to maintain a continuous detailed record of the movements of all aircraft operating in accordance with the Instrument Flight Rules, and a general record of the movements of all aircraft operating in accordance with the Visual Flight Rules within its control area. In addition to providing area control service to aircraft operating within the controlled airspace over Newfoundland, the Gander area control centre provides this service within the airspace over approximately one-half of the North Atlantic Ocean. Area control service is provided for approximately 15,000 miles of airways, air routes and control channels.

Flight Information provides advice and information useful for the safe and efficient conduct of flight, including weather reports and forecasts, field condition reports, data concerning aids to navigation, traffic information, refuelling and transportation facilities and other related data of assistance to the pilot in planning or conducting a flight. Such service is provided by all air-traffic control units but particularly by the seven area control centres—one to a region.

Alerting for Search and Rescue is designed to ensure that the appropriate organizations are notified of aircraft in need of search and rescue aid and otherwise to assist such organizations, as required. Area control centres are responsible for notifying these organizations promptly of non-arrival at destination of any aircraft for which a flight plan or flight notification has been received. This requires the maintenance and constant supervision of a continuous record of active flights to ensure that non-arrival of any aircraft is detected immediately. The service is available to any pilot who files either a flight plan or a flight notification with any communications agency of the Air Services of this Department or directly with one of the area control centres or control towers.

Customs Notification Service facilitates the routine notification of the appropriate customs agency by pilots who plan to cross the Canada-United States boundary. The Air-Traffic Control communications system and units connected therewith forward pilot requests to notify the customs officer at the airport of destination.

Aircraft Identification Service is provided by area control centres to assist the Department of National Defence in establishing the identification of all aircraft operating within specified areas.

The number of controlled operations in Canada during 1957 was 2,838,066, an increase of 27 p.c. over 1956.

Summary of Operation Statistics.—The statistics given in Table 4 show the steady increase in recent years in passenger, freight and mail traffic.

4.—Summary Statistics of Civil Aviation 1953-56

NOTE.—Figures shown in this table include operations of Canadian international carriers and Canadian operations of foreign carriers. Figures published in previous editions of the Year Book covered domestic carriers only.

| Item | 1953 ¹ | 1954 ¹ | 1955 | 1956 |
|---|-------------------|-------------------|---------------|---------------|
| Aircraft Miles Flown— | | | | |
| Revenue.....No. | 64,076,912 | 61,582,481 | 83,805,304 | 101,723,710 |
| Non-revenue....." | .. | .. | .. | .. |
| Totals.....No. | 64,076,912 | 61,582,481 | 83,805,304 | 101,723,710 |
| Passengers Carried— | | | | |
| Revenue.....No. | 2,724,432 | 2,792,348 | 3,249,099 | 3,864,818 |
| Non-revenue....." | 71,405 | 73,199 | 54,076 | 58,721 |
| Totals.....No. | 2,795,837 | 2,865,547 | 3,303,175 | 3,923,539 |
| Passenger Miles— | | | | |
| Revenue.....No. | 942,269,095 | 1,066,805,242 | 1,223,825,448 | 1,547,279,882 |
| Non-revenue....." | 45,784,828 | 49,134,404 | 57,477,989 | 61,416,920 |
| Totals.....No. | 988,053,923 | 1,115,939,646 | 1,281,303,437 | 1,608,696,802 |
| Freight Carried— | | | | |
| Revenue.....lb. | 177,451,345 | 109,299,356 | 233,561,830 | 319,260,401 |
| Non-revenue....." | 5,268,374 | 5,714,121 | 7,121,832 | 7,639,517 |
| Totals.....lb. | 182,719,719 | 115,013,477 | 240,683,662 | 326,899,918 |
| Freight Ton-Miles— | | | | |
| Revenue.....No. | 11,738,487 | 14,057,279 | 18,084,169 | 22,065,286 |
| Non-revenue....." | 2,796,334 | 3,379,895 | 3,477,194 | 3,039,907 |
| Totals.....No. | 14,534,821 | 17,437,174 | 21,561,363 | 25,105,193 |
| Mail carried.....lb. | 20,319,952 | 24,228,571 | 26,616,505 | 27,914,288 |
| Mail ton-miles.....No. | 6,419,077 | 8,239,855 | 9,048,610 | 10,238,458 |
| Hours Flown by Aircraft— | | | | |
| Transportation revenue.....No. | 415,698 | 397,057 | 530,924 | 646,902 |
| Transportation non-revenue....." | 26,044 | 21,516 | 31,306 | 37,567 |
| Patrols, surveys, etc....." | 83,193 | 75,760 | 74,989 | 87,920 |
| Totals.....No. | 524,935 | 494,333 | 637,219 | 772,389 |
| Gasoline consumption.....gal. | 51,817,843 | 53,164,769 | 77,938,918 | 102,836,140 |
| Lubricating oil consumption....." | 649,664 | 695,642 | 1,006,154 | 1,212,361 |
| Licensed civil airports (all types).....No. | 433 | 470 | 495 | 519 |
| Year Ended Mar. 31— | | | | |
| | 1953 | 1954 | 1955 | 1956 |
| Licensed Civil Aircraft (all types)— | | | | |
| Gross weight— | | | | |
| Up to 2,000 lb.....No. | 1,242 | 1,331 | 1,495 | 1,492 |
| 2,001 - 4,000 lb....." | 567 | 668 | 855 | 876 |
| 4,001 - 10,000 lb....." | 450 | 488 | 530 | 548 |
| 10,001 - 20,000 lb....." | 33 | 48 | 49 | 50 |
| Over 20,000 lb....." | 136 | 159 | 219 | 251 |
| Totals, Aircraft.....No. | 2,428 | 2,694 | 3,148 | 3,217 |

¹ Includes employees other than crews.

4.—Summary Statistics of Civil Aviation 1953-56—concluded

| Item | Year Ended Mar. 31—concluded | | | |
|--|------------------------------|-------|-------|-------|
| | 1953 | 1954 | 1955 | 1956 |
| Ownership, Commercial— | | | | |
| Up to 2,000 lb. No. | 540 | 550 | 595 | 555 |
| 2,001 - 4,000 lb. " | 279 | 308 | 386 | 409 |
| 4,001 - 10,000 lb. " | 285 | 314 | 328 | 345 |
| 10,001 - 20,000 lb. " | 25 | 30 | 52 | 35 |
| Over 20,000 lb. " | 121 | 149 | 199 | 231 |
| Ownership, Other— | | | | |
| Up to 2,000 lb. No. | 702 | 783 | 900 | 937 |
| 2,001 - 4,000 lb. " | 288 | 350 | 469 | 467 |
| 4,001 - 10,000 lb. " | 165 | 181 | 202 | 203 |
| 10,001 - 20,000 lb. " | 8 | 19 | 17 | 15 |
| Over 20,000 lb. " | 15 | 10 | 20 | 20 |
| Licensed Civil Air Personnel— | | | | |
| Commercial pilots. No. | 1,319 | 1,532 | 1,712 | 1,872 |
| Senior commercial. " | 218 | 337 | 342 | 335 |
| Airline transport. " | 458 | 589 | 663 | 778 |
| Glider pilots. " | 107 | 136 | 162 | 208 |
| Transport pilots. " | 269 | — | — | — |
| Private pilots. No. | 4,483 | 4,508 | 5,034 | 5,402 |
| Air navigators. " | 43 | 53 | 57 | 64 |
| Air traffic controllers. " | 183 | 199 | 244 | 284 |
| Air engineers. " | 1,418 | 1,429 | 1,448 | 1,619 |
| Aircraft maintenance engineers. " | — | — | 24 | 26 |

Table 5 shows civil aviation figures for 1956 by type of service. A definition of scheduled and non-scheduled carriers is given on p. 870. Statistics for international carriers include traffic over Canadian territory for both Canadian and foreign operators; a small traffic across Canadian territory and between foreign stations is also included.

5.—Summary Statistics of Civil Aviation by Type of Service 1956

| Item | Canadian Carriers | | | Foreign Inter-national | Total |
|---|----------------------------|-------------|-------------------------|------------------------|--------------------------|
| | International ¹ | Scheduled | Non-scheduled and Other | | |
| Aircraft—Miles Flown—revenue transportation. No. | 16,425,566 | 52,688,993 | 29,322,935 | 3,286,216 | 101,723,710 |
| Passengers Carried. No. | 683,890 | 2,204,752 | 481,325 | 553,572 | 3,923,539 |
| Revenue. " | 682,973 | 2,196,090 | 441,642 | 544,113 | 3,864,818 |
| Non-revenue. " | 917 | 8,662 | 39,683 | 9,459 | 58,721 |
| Passenger—Miles ² No. | 551,298,705 | 982,723,410 | 5,503,886 | 69,170,801 | 1,608,696,802 |
| Revenue. " | 534,176,586 | 941,074,180 | 5,389,007 | 66,640,109 | 1,547,279,882 |
| Non-revenue. " | 17,122,119 | 41,649,230 | 114,879 | 2,530,692 | 61,416,920 |
| Freight Carried. lb. | 15,729,067 | 136,469,191 | 163,540,340 | 9,942,801 | 326,899,918 ³ |
| Revenue. " | 15,140,878 | 131,167,751 | 162,476,287 | 9,257,266 | 319,260,401 ³ |
| Non-revenue. " | 588,189 | 5,301,440 | 1,064,053 | 685,535 | 7,639,517 ³ |
| Freight Ton-Miles. No. | 9,038,924 | 14,656,150 | 175,683 | 925,539 | 25,105,193 ³ |
| Revenue. " | 8,214,214 | 12,641,612 | 151,849 | 748,714 | 22,065,286 ³ |
| Non-revenue. " | 824,710 | 2,014,538 | 23,834 | 176,825 | 3,039,907 |
| Mail carried. lb. | 2,156,291 | 22,131,279 | 1,282,709 | 2,344,009 | 27,914,288 |
| Mail ton-miles. No. | 1,943,769 | 7,861,272 | 89,063 | 344,354 | 10,238,458 |
| Hours Flown by Aircraft. No. | 69,735 | 326,207 | 360,892 | 15,555 | 772,389 |
| Transportation revenue. " | 67,946 | 302,507 | 260,983 | 15,466 | 646,902 |
| Transportation non-revenue. " | 1,789 | 18,885 | 16,804 | 89 | 37,567 |
| Patrols, surveys, etc. " | — | 4,815 | 83,105 | — | 87,920 |
| Gasoline consumption. gal. | 14,027,597 | 58,059,860 | 11,342,890 | 19,405,793 | 102,836,140 |
| Lubricating oil consumption. " | 189,979 | 648,445 | 164,250 | 209,687 | 1,212,361 |

¹ Includes trans-border services.
not available.

² Exclusive of charter service, figures for which are not available.

³ Includes freight, excess baggage and express.

6.—Capital Investment of the Department of Transport in Air Services as at Mar. 31, 1954-56

NOTE.—Compiled from Department of Transport records

| Item | 1954 ^r | 1955 | 1956 | Total as at Mar. 31, 1956 |
|--|-------------------|---------------|---------------|---------------------------|
| | \$ | \$ | \$ | \$ |
| Airways and Airports | 5,018,432 | 6,381,392 | 17,866,722 | 306,682,937 |
| Civil Aviation— | | | | |
| Capital appropriations..... | 8,022,940 | 10,229,143 | 20,380,084 | 279,075,863 |
| Transferred from other Departments..... | — | 131,000 | 187,736 | |
| Property transferred to Crown Assets Disposal Corporation..... | Cr. 4,792,762 | Cr. 6,291,708 | Cr. 4,589,963 | |
| Property retired through obsolescence, loss or abandonment..... | — | 124,477 | Cr. 830,678 | |
| Telecommunications Division (Aviation Radio Aids)— | | | | |
| Capital appropriations..... | 1,909,395 | 2,188,480 | 2,726,143 | 27,607,124 |
| Property transferred to Crown Assets Disposal Corporation..... | — | — | Cr. 6,600 | |
| Property retired through obsolescence, loss or abandonment..... | Cr. 121,141 | — | — | |
| Telecommunications Division (excl. Aviation Radio Aids) | 1,029,163 | 1,549,058 | 1,155,957 | 20,237,915 |
| Radio Act and Regulations..... | 287,946 | 251,254 | 196,257 | 1,115,367 |
| Radio Aids to marine navigation..... | 380,456 | 555,444 | 477,455 | 3,172,477 |
| Northwest Communication System..... | 361,218 | 803,855 | 485,414 | 15,950,071 |
| Transferred to other Departments..... | Cr. 457 | — | — | |
| Property transferred to Crown Assets Disposal Corporation..... | — | Cr. 11,805 | Cr. 2,031 | |
| Property retired through obsolescence, loss or abandonment..... | — | Cr. 49,690 | Cr. 1,138 | |
| Meteorological Facilities | 907,440 | 915,604 | 1,304,285 | 5,867,463 |
| Capital appropriations..... | 907,440 | 915,604 | 1,057,686 | 5,867,463 |
| Transferred from other Departments..... | — | — | 246,599 | |
| Canadian Government Transatlantic Air Service | — | — | Cr 4,788,369 | — |
| Totals | 6,955,035 | 8,846,054 | 15,538,595 | 332,788,365 |

7.—Expenditure and Revenue of the Department of Transport in connection with Air Services, Years Ended Mar. 31, 1954-56

NOTE.—Compiled from Department of Transport records.

| Item | 1954 | 1955 | 1956 |
|---|------------|------------|------------|
| | \$ | \$ | \$ |
| Expenditure | | | |
| Air Transport Board | 356,563 | 268,287 | 247,552 |
| Air Services Administration | 230,293 | 244,439 | 670,123 |
| Civil Aviation Division (incl. Aviation Radio Aids) | 17,890,349 | 18,499,590 | 19,389,446 |
| Control of Civil Aviation..... | 909,600 | 1,000,885 | 1,035,412 |
| Construction Services, administration..... | 785,246 | 874,554 | 793,273 |
| Grants to aeroplane clubs..... | 307,250 | 335,050 | 301,750 |
| Grants to National Research Council..... | 50,000 | — | — |
| Airways and Airports, Operation and Maintenance— | | | |
| Ordinary..... | 8,790,905 | 8,764,906 | 9,081,301 |
| Aviation radio aids..... | 5,178,689 | 5,578,798 | 5,874,174 |
| Contributions to assist municipalities..... | 142,192 | 98,170 | 80,097 |
| Contribution to State of Michigan..... | 15,000 | 24,900 | 19,780 |
| Contribution to International Civil Aviation Organization re Iceland Government air aids to navigation..... | 38,319 | 38,398 | 29,138 |
| Contribution to Denmark in joint support of North Atlantic Air Navigation facilities in the Faroes and Greenland..... | 67,608 | 61,328 | 48,865 |
| Contribution to South Pacific Air Transport Council..... | 122,500 | 122,500 | 122,500 |
| Contributions towards development of landing facilities in mining areas..... | 40,000 | 2,000 | 80,510 |
| Airways and airports traffic control..... | 1,443,040 | 1,598,101 | 1,922,646 |

7.—Expenditure and Revenue of the Department of Transport in connection with Air Services, Years Ended Mar. 31, 1954-56—continued

| Item | 1954 | 1955 | 1956 |
|---|-------------------|-------------------|-------------------|
| | \$ | \$ | \$ |
| Expenditure—concluded | | | |
| Telecommunications Division (excl. Aviation Radio Aids)..... | 5,487,823 | 4,623,622 | 4,574,196 |
| Administration of Radio Act and Regulations..... | 1,026,209 | 1,420,455 | 1,555,992 |
| Radio Aids to Marine Navigation..... | 2,135,890 | 2,308,412 | 2,274,286 |
| Suppression of radio interferences..... | 375,307 | — | — |
| Issue of radio receiving licences..... | 40,862 | — | — |
| Telegraph and Telephone Services— | | | |
| Administration, operation and maintenance..... | 1,438,997 | 556,293 | 444,871 |
| Construction and improvements..... | 470,558 | 338,462 | 299,047 |
| Meteorological Division, Operation and Maintenance..... | 6,336,415 | 6,860,870 | 7,326,209 |
| Totals, Expenditure..... | 30,301,353 | 30,496,808 | 32,207,526 |
| Revenue and Receipts | | | |
| Air Services Administration..... | 3 | 44 | 1 |
| Civil Aviation Division (incl. Aviation Radio Aids)..... | 5,823,535 | 6,025,233 | 6,953,052 |
| Private air pilots' certificates..... | 6,333 | 10,705 | 17,575 |
| Aircraft registration fees..... | 5,237 | 6,277 | 7,060 |
| Airport licences..... | 391 | 231 | 321 |
| Airworthiness certificates..... | 1,830 | 1,529 | 2,190 |
| Fines, Aeronautics Act and Regulations..... | 1,775 | 1,633 | 4,668 |
| Aircraft landing fees..... | 2,267,717 | 2,211,046 | 2,841,371 |
| Rentals at airports..... | 632,554 | 792,716 | 734,410 |
| Outside and hangar space rental..... | 558,432 | 564,157 | 512,105 |
| Rental of equipment..... | 8,552 | 8,263 | 13,172 |
| Rentals, employees quarters..... | 263,663 | 290,121 | 328,006 |
| Miscellaneous rentals..... | 56,804 | 75,574 | 71,062 |
| Power service..... | 76,950 | 79,574 | 95,083 |
| Concessions— | | | |
| Gasoline and oil..... | 502,102 | 530,990 | 707,312 |
| Taxi..... | 37,282 | 43,838 | 56,781 |
| Telephone..... | 8,208 | 9,445 | 11,999 |
| Restaurants and snack bars..... | 13,407 | 13,931 | 51,374 |
| Car parking area..... | — | — | 43,378 |
| Other..... | 74,455 | 82,886 | 74,106 |
| Telephone service..... | 8,583 | 18,657 | 18,592 |
| Airport radio service to aircraft..... | 396,288 | 357,941 | 374,573 |
| Radio message tolls..... | 34,665 | 18,078 | 55,437 |
| Mess receipts..... | 22,497 | 20,669 | 30,610 |
| Sales miscellaneous..... | 17,649 | 47,443 | 23,945 |
| Aircraft servicing other than repairs..... | 5 | — | — |
| Observation roof turnstiles..... | 19,677 | 20,296 | 25,243 |
| Miscellaneous revenue..... | 96,958 | 132,954 | 107,524 |
| Gander Airport— | | | |
| Mess hall accommodation..... | 18,436 | 21,039 | 22,544 |
| Airlines hotel accommodation..... | 32,135 | 39,511 | 39,775 |
| Skyways Club..... | 2,822 | 5 | — |
| Coal sales..... | 29,408 | 30,683 | 21,953 |
| Mess hall board..... | 20,470 | 23,265 | 23,878 |
| Airlines hotel dining room..... | 82,814 | 62,555 | 56,799 |
| Airlines hotel bar..... | 59,021 | 46,063 | 52,974 |
| Skyways Club snack bar..... | 14,942 | 54 | — |
| Skyways Club bar..... | 4,377 | — | — |
| Laundry..... | 1,529 | — | — |
| Dry-cleaning plant..... | 12 | — | — |
| Recoverable services..... | 78,020 | 44,548 | 22,896 |
| Heating..... | 189,190 | 185,304 | 192,593 |
| Electricity..... | 114,584 | 140,602 | 150,300 |
| Bakery..... | 7,130 | — | — |
| Sanitary fees..... | 8,965 | 3,730 | 3,006 |
| Bus operation..... | 3,262 | 5,270 | 8,124 |
| Assessment collections..... | 441 | 457 | 465 |
| Net profit commercial caterers..... | 9,354 | 28,773 | 97,682 |
| Refunds, previous year's expenditure..... | 34,609 | 56,420 | 52,166 |
| Telecommunications Division (excl. Aviation Radio Aids)..... | 1,566,029 | 2,831,154 | 1,331,027 |
| Radio operators' examination fees..... | 1,572 | 1,902 | 1,703 |
| Radio Station Licences— | | | |
| Aircraft station..... | 13,033 | 15,142 | 16,825 |
| Amateur experimental station..... | 17,415 | 18,859 | 16,925 |
| Commercial receiving station..... | 139 | 211 | 624 |

7.—Expenditure and Revenue of the Department of Transport in connection with Air Services, Years Ended Mar. 31, 1954-56—concluded

| Item | 1954 | 1955 | 1956 |
|--|------------------|------------------|------------------|
| | \$ | \$ | \$ |
| Revenue and Receipts—concluded | | | |
| Telecommunications Division (excl. Aviation Radio Aids)—concluded | | | |
| Radio Station Licences—concluded | | | |
| Experimental station..... | 1,012 | 1,350 | 1,280 |
| Limited coast station..... | 350 | 900 | 950 |
| Municipal police private commercial station..... | 313 | 366 | 413 |
| Private commercial station..... | 73,882 | 88,325 | 106,202 |
| Public commercial station..... | 11,190 | 14,290 | 18,915 |
| Ship station..... | 35,467 | 37,944 | 42,033 |
| Commercial broadcasting receiving stations..... | — | — | 1,289 |
| Technical and training school station..... | 25 | 40 | 32 |
| Sale of transport publications..... | 1,259 | 2,545 | 2,816 |
| Fines—Radio Act and Regulations..... | 1,826 | 220 | 196 |
| Radio Message Tolls— | | | |
| DOT operated coast stations..... | 172,470 | 160,888 | 126,613 |
| Marconi operated coast stations..... | 77,684 | 81,609 | 86,097 |
| Rentals, Living Quarters— | | | |
| Employees..... | 26,122 | 30,143 | 28,621 |
| Other..... | 4,326 | 2,669 | 1,881 |
| Government telegraph and telephone tolls..... | 952,687 | 524,641 | 203,467 |
| Sale of British Columbia facilities..... | — | 1,500,000 | — |
| Sale of Maniwaki—St. Thérèse landlines..... | — | 7,500 | — |
| Sale of Mount Hayes—Sandspit system..... | — | — | 35,000 |
| Mess receipts..... | 327 | 60 | 3,899 |
| Sundries..... | 19,764 | 4,670 | 6,336 |
| Northwest Communication System..... | 121,592 | 300,962 | 592,202 |
| Refunds, previous year's expenditure..... | 33,574 | 35,918 | 36,708 |
| Meteorological Division..... | 41,532 | 39,719 | 58,773 |
| Rentals, Living Quarters— | | | |
| Employees..... | 20,262 | 23,041 | 26,429 |
| Other..... | 3,399 | 3,731 | 4,301 |
| Sale of transport publications..... | 3,405 | 2,429 | 2,063 |
| Radio commercial message tolls, DOT operated coast stations..... | 688 | 843 | 3,042 |
| Communication facilities, inter-office..... | 350 | 321 | 2,506 |
| Power service..... | 754 | 367 | 474 |
| Sundries..... | 6,296 | 760 | 12,079 |
| Refunds, previous year's expenditure..... | 6,378 | 8,227 | 7,879 |
| Totals, Revenue and Receipts..... | 7,431,099 | 8,896,150 | 8,342,853 |

No statistics are available regarding total expenditure on flying operations by the federal and provincial governments or by private individuals, but capital expenditure by commercial air carriers for property as reported for the end of 1954 and 1955 is shown in Table 8.

8.—Cost of Property, Revenue and Expenditure for Scheduled and Other Commercial Air Carriers 1954 and 1955

| Item | 1954 | | | 1955 | | |
|---------------------------------|------------------------|------------------|-------------------|------------------------|------------------|-------------------|
| | Scheduled ¹ | Other | Total | Scheduled ¹ | Other | Total |
| | \$ | \$ | \$ | \$ | \$ | \$ |
| Cost of Property..... | 37,927,946 | 5,020,059 | 42,948,005 | 52,850,072 | 9,830,249 | 62,680,321 |
| Aircraft..... | 20,625,272 | 3,069,903 | 23,695,175 | 30,667,114 | 5,600,300 | 36,267,414 |
| Aircraft engines..... | 6,557,267 | 571,122 | 7,128,389 | 9,146,254 | 1,252,040 | 10,398,294 |
| Buildings and improvements..... | 6,438,750 | 734,074 | 7,172,824 | 7,069,640 | 1,194,005 | 8,263,645 |
| Miscellaneous..... | 4,306,657 | 644,960 | 4,951,617 | 5,967,064 | 1,783,904 | 7,750,968 |
| Revenue and Expenditure— | | | | | | |
| Revenue..... | 90,730,262 | 18,134,027 | 108,864,289 | 114,641,750 | 38,097,268 | 152,739,018 |
| Expenditure..... | 89,076,669 | 17,910,700 | 106,987,369 | 110,963,062 | 35,691,752 | 146,654,814 |

¹ Includes Canadian trans-border, transatlantic and transpacific services.

Employees and Salaries and Wages.—The numbers of civil air personnel licensed in recent years are shown in Table 4, p. 876. However the figures in Table 9 include pilots and engineers in the employ of the Federal Government and of private individuals as well as those not employed at all in the ordinary sense.

9.—Employees and Salaries and Wages in Civil Aviation 1955

| Class of Employee | Scheduled | | Non-scheduled | | Totals | |
|-----------------------------------|----------------|-----------------------|----------------|-----------------------|----------------|-----------------------|
| | Em- ployees | Salaries and Wages | Em- ployees | Salaries and Wages | Em- ployees | Salaries and Wages |
| | No. | \$ | No. | \$ | No. | \$ |
| General officers..... | 740 | 4,957,817 | 149 | 994,687 | 889 | 5,952,504 |
| Clerks..... | 1,480 | 4,141,462 | 174 | 469,006 | 1,654 | 4,610,468 |
| Pilots..... | 409 | 4,753,793 | 578 | 3,238,968 | 987 | 7,992,761 |
| Co-pilots..... | 404 | 2,318,764 | 77 | 422,730 | 481 | 2,741,494 |
| Despatchers..... | 121 | 625,442 | 47 | 153,249 | 168 | 778,691 |
| Communication operators..... | 820 | 2,548,536 | 39 | 112,557 | 859 | 2,661,093 |
| Stewards or other attendants..... | 509 | 1,720,555 | 9 | 21,691 | 518 | 1,742,246 |
| Air engineers..... | 503 | 2,552,321 | 306 | 1,232,458 | 809 | 3,784,779 |
| Mechanics..... | 2,588 | 10,582,937 | 331 | 1,044,905 | 2,919 | 11,627,842 |
| Airport employees..... | 1,824 | 6,157,205 | 136 | 355,372 | 1,960 | 6,512,577 |
| Stores employees..... | 300 | 996,724 | 46 | 144,811 | 346 | 1,141,535 |
| Other employees..... | 1,419 | 5,359,286 | 262 | 615,623 | 1,681 | 5,974,909 |
| Totals¹..... | 11,117 | 46,714,842 | 2,154 | 8,806,057 | 13,271 | 55,520,899 |

¹ Excludes 512 employees of foreign carriers domiciled in Canada.

PART VI.—OIL AND GAS PIPELINES*

A special article covering the history and development of pipeline construction in Canada appears in the 1954 Year Book at pp. 861-869. Additional information has been carried in each succeeding edition and the following Section brings pipeline development up to mid-1957.

Section 1.—Pipeline Developments

Oil Pipelines.—Most of the crude oil in Canada, both domestically produced and imported, is carried through a network of pipelines connecting batteries, refineries and ports. This transportation system has grown rapidly in recent years and, at the end of 1956, totalled 7,321 miles exclusive of the miles of loops installed parallel to the original line to increase throughput capacity. Most of this system of pipelines (5,807 miles) is in Canada and the remainder is in the United States where it is used to transport Canadian crude oil exclusively.

The two principal components of the system are the trunk pipelines of Interprovincial Pipe Line Company and Trans Mountain Oil Pipe Line Company, both originating in Edmonton, Alta. The Edmonton pipeline terminal is served by six feeder lines bringing in crude oil from the surrounding fields: Britam Oil Pipe Line Company Limited, Pembina Pipe Line Limited, Imperial Pipeline Company Limited, Edmonton Pipeline Company Limited, Interprovincial Pipe Line Company, and Texaco Exploration Company.

Interprovincial Pipeline.—Interprovincial pipeline stretches 1,765 miles from Edmonton to Sarnia in Ontario, gathering crude from the three Prairie Provinces and making deliveries along the line. During 1957 the line was being extended 156 miles to Toronto. Saskatchewan oil is accepted from two pipeline companies—Mid-Saskatchewan Pipe Lines Limited at Ermine, and South Saskatchewan Pipe Line Company at Regina. Deliveries are made by Interprovincial to two other systems—B.A. Saskatchewan Pipe Line Limited at Stony Beach and Saskatoon Pipe Line Company at Mildred—and also to

* Prepared by R. B. Toombs, Petroleum Engineer, Department of Mines and Technical Surveys, Ottawa.

refineries in Regina. Crude oil from the new fields of southeastern Saskatchewan is delivered by Westspur Pipeline Company, connecting with the Interprovincial line at Cromer, Man., where the Trans-Prairie Pipeline Limited system, serving the Manitoba fields, also connects. Deliveries in Manitoba are made to Brandon and to Winnipeg Pipeline Company at Gretna. In the United States, Interprovincial serves a connecting pipeline to St. Paul, Minn., and makes deliveries at Wrenshall, Minn.; Superior, Wis.; and West Branch, Midland and Bay City, Mich.

Sixty-seven miles of 24-inch loop and 52 miles of 26-inch loop were constructed in 1956, providing a two-line system from Regina to Clearbrook, Minn. Pumping capacity was increased and additional storage tanks were erected at Cromer. Construction was started on a second pump station at Indian River, Mich.

Capacities of the line, in barrels per day, between selected points at the end of 1956 were: Edmonton to Regina, 217,000; Regina to Cromer, 193,000; Cromer to Gretna, 241,000; Gretna to Superior, 212,000; and Superior to Sarnia, 147,000. Gross deliveries to regions served by the pipeline were: Western Canada, 33,700,000 bbl.; U.S. refineries, 16,900,000 bbl.; tankers out of Superior, 5,600,000 bbl.; and Eastern Canada, 40,500,000 bbl. Tariff charges from Edmonton to Regina, Gretna, Superior, and Sarnia were 23½, 36, 44 and 64 cents per bbl., respectively. From Cromer to Sarnia the rate was 48 cents per bbl.

Trans Mountain Pipeline.—This line serves the area westward from Edmonton. In addition to taking oil from the six feeder lines at Edmonton, it is linked at Edson, Alta., with a pipeline bringing crude from the Sturgeon Lake area in Alberta. No deliveries are made in Alberta but all crude transported comes from that province. Deliveries are made to refineries at Kamloops and Vancouver in British Columbia, and Ferndale and Anacortes in Washington State. Deliveries may be made to tankers at a marine loading dock at Vancouver.

During 1956 construction started on two permanent pump stations at Jasper and Gainford, Alta., but by mid-1956 it was necessary to install two temporary units to meet demands for crude oil, and the capacity of the line was increased from 150,000 to 185,000 bbl. a day. In November the temporary pump station at Jasper was destroyed by fire, causing a reduction in capacity, but a permanent station was completed at that point early in 1957 again bringing the line's capacity to at least 185,000 bbl. a day. The capacity of the Washington State line was increased to 200,000 bbl. a day by construction of a pump station at Laurel.

Total deliveries for 1956 were 47,251,641 bbl., of which 46.1 p.c. was delivered to Canadian refineries, 40.7 p.c. to Washington State refineries and 13.2 p.c. constituted offshore shipments. This was the first year crude oil was shipped by sea from Trans Mountain pipeline and, during the year, 53 tankers were loaded at Vancouver. Tariff charges from Edmonton or Edson to Kamloops, Vancouver, Ferndale and Anacortes were 43, 45, 47 and 47 cents per bbl. The marine loading charge at Vancouver was 2½ cents per bbl.

Other Oil Pipelines.—The addition during 1956 of 728 miles of operational oil pipeline reflected the continuing growth of the oil pipeline industry. Pembina Pipe Line Limited installed 153 miles of line to serve the expanding Pembina field in Alberta. Construction on the main pump station was completed and throughput during the year was about 32,120,000 bbl. Peace River Pipe Line Company Limited completed 107 miles of trunk line and 37 miles of gathering lines which connect Sturgeon Lake, Sturgeon Lake South and Little Smoky fields in Alberta with the Trans Mountain line at Edson. Deliveries began in March and throughput totalled 1,824,000 bbl. in 1956. Cremona Pipelines Limited constructed a trunk line to Calgary from the Sundre field 65 miles northwest of the city. The line will also carry crude to Calgary from the Westward Ho, Harmattan, and Elkton fields in Alberta. Britam Oil Pipeline Company Limited, formerly Canadian Gulf Pipe Line Company, extended its system 35 miles south from the Fenn-Big Valley field to West Drumheller. Rangeland Pipe Line Company Limited constructed a 50-mile

gathering line and a 10-mile trunk line from the West Joffre, Bentley, Gilby and West Gilby fields in Alberta to Rimbey, Alta., where the system connects with the Texaco Exploration Company pipeline to Edmonton.

In southwestern Saskatchewan, South Saskatchewan Pipe Line Company installed 59 miles of main line connecting the Dollard, Leon Lake, Instow, Bone Creek, Gull Lake and North Premier fields with the Company's existing trunk line in the Cantuar field. The line is capable of delivering 28,000 bbl. a day to the Interprovincial system at Regina. A new line to serve the fields in southeastern Saskatchewan was completed in July 1956 by Westspur Pipe Line Company. In the last six months of the year, a total of 3,928,330 bbl. of crude oil from the Midale, Steelman, Frobisher, Alida, Kingsford, Nottingham, Ingoldsby, Rosebank and Edenvale fields was carried to the Interprovincial receiving station at Cromer in Manitoba. In December, Trans-Prairie Pipelines Limited completed a 25-mile pipeline which connects with the Westspur line in the Midale field and carries crude from the fields of Weyburn and Halbrite.

Sarnia Products Pipe Line, a division of Imperial Oil Limited and one of three products pipelines in Ontario, constructed 38.5 miles of 12-inch loop between Waterdown and North Toronto and added pumping units at its three pump stations increasing capacity to 76,000 bbl. a day. Trans-Northern Pipe Line Company Limited increased throughput capacity of its Montreal-Toronto-Hamilton line from 50,000 to 65,000 bbl. a day.

Natural Gas Pipelines.—During 1956, Westcoast Transmission Company Limited and Trans-Canada Pipe Lines Limited began construction on lines that will deliver Alberta natural gas to Western and Eastern Canada, respectively. These were the most important developments in the pipeline industry in that year.

Westcoast Transmission Pipeline.—By the end of 1956, Westcoast Transmission had completed about 70 p.c. of the 650 miles of 30-inch main line from Taylor in northeastern British Columbia to Vancouver and the United States border near Huntingdon, B.C. The line will have an initial design capacity of 400,000,000 cu. feet of gas a day, three-quarters of which is destined to serve the northwest region of the United States through the Pacific Northwest Pipeline Corporation. In anticipation of deliveries of Canadian natural gas by Westcoast, British Columbia Electric Company converted the manufactured gas system in the Vancouver area to natural gas, enlarged it and began taking United States gas from a short Westcoast Transmission line connected with Pacific Northwest's system. When the Westcoast line is completed, B.C. Electric will receive domestically produced natural gas and the flow from the United States will be reversed. A second company, Inland Natural Gas Company Limited, was granted permission to construct a gas transportation system to serve the Okanagan Valley, West Kootenay and Cariboo regions in British Columbia with gas from Westcoast's line.

Westcoast has signed 20-year purchase contracts with producers in the Peace River area covering supplies of 450,000,000 cu. feet a day. The basic price to producers for the first five years, commencing Jan. 1, 1958, will be 10 cents per M cu. feet escalating $\frac{1}{4}$ cent per year to a maximum of $12\frac{1}{2}$ cents per M cu. feet. The price to B.C. Electric and Inland Natural Gas, after the initial build-up period will be $30\frac{1}{2}$ cents per M at 100 p.c. load factor. Sales to Pacific Northwest Pipeline, when the volume reaches 400,000,000 cu. feet daily, will be at the rate of 22 cents per M cu. feet under terms of an initial contract at 90 p.c. load factor and 25 cents at 90 p.c. load factor, under a second contract which provides for additional deliveries by 1959.

Trans-Canada Pipeline.—Trans-Canada Pipe Lines Limited in 1956 began construction of a 2,294-mile pipeline from near Burstall, Sask., to Montreal, Que., with a spur line to Ottawa. Construction did not commence until June, after the Company had received a temporary loan from the Canadian Government and, because of a strike in the steel industry in the United States and the resultant slow delivery, only 230 miles of 34-inch pipe had been laid by the time winter halted construction. To supply gas to Trans-Canada, Alberta Gas Trunk Line Limited constructed 34 miles of line to join the

Bindloss field about 60 miles north of Medicine Hat to the Trans-Canada intake terminal. Alberta Gas Trunk will construct and operate all feeder lines within Alberta that supply the Trans-Canada line.

During 1956, Trans-Canada signed gas sales contracts with five large distributors: Winnipeg and Central Gas Company, Northern Ontario Natural Gas Company, Consumers' Gas Company of Toronto, Union Gas Company of Canada, and Quebec Natural Gas Company.

Other Natural Gas Pipelines.—In Alberta, North Canadian Oils Limited completed a 136-mile 10-inch line to Hinton from the Wabamun gas terminal 40 miles west of Edmonton. Maximum capacity will be 70,000,000 cu. feet a day. South Alberta Pipe Lines Limited completed a 46-mile pipeline from the Etzikom gas field to Medicine Hat to serve a chemical plant there. Canadian Western Natural Gas Company extended its system by 111 miles to include four communities in the Lethbridge area and seven communities in the Calgary area.

The Saskatchewan Power Corporation constructed a transmission line from the Swift Current area to Moose Jaw and extended its northern distribution system to North Battleford and to Humboldt, including several towns en route. The Corporation laid 435 miles of pipe in 1956.

In southwestern Ontario, Consumers' Gas Company of Toronto, Union Gas Company of Canada Limited, Dominion Natural Gas Company and several smaller utilities extended their systems during 1956 in preparation for more adequate supplies of natural gas when the Trans-Canada pipeline from Alberta is completed. In all, 436 miles of gathering, transmission and distribution lines were constructed in Ontario and placed in operation.

Section 2.—Oil Pipeline Statistics*

There were 32 oil pipelines operating in Canada at Dec. 31, 1956, with a total mileage of 6,051 compared to 5,079 at the end of 1955. Pipeline deliveries shown in Table 1 were made to non-pipeline carriers, foreign pipelines, and terminals including refineries and distributing centres. Prior to 1950, deliveries were small and comparable statistics are not available mainly because the major pipelines were not in operation. Net gathering-system deliveries in Alberta fell sharply after the opening of the interprovincial system in 1950 because the new trunk line carried most of the oil formerly moved eastward by railway tank cars.

During 1956 operating revenues of all oil pipelines except Amurex Oil Development Company, Anglo American Exploration Company, Green River Exploration Company, Mobil Oil of Canada Limited, and Sarnia Products Line totalled \$78,316,555 compared with \$58,952,816 in 1955.

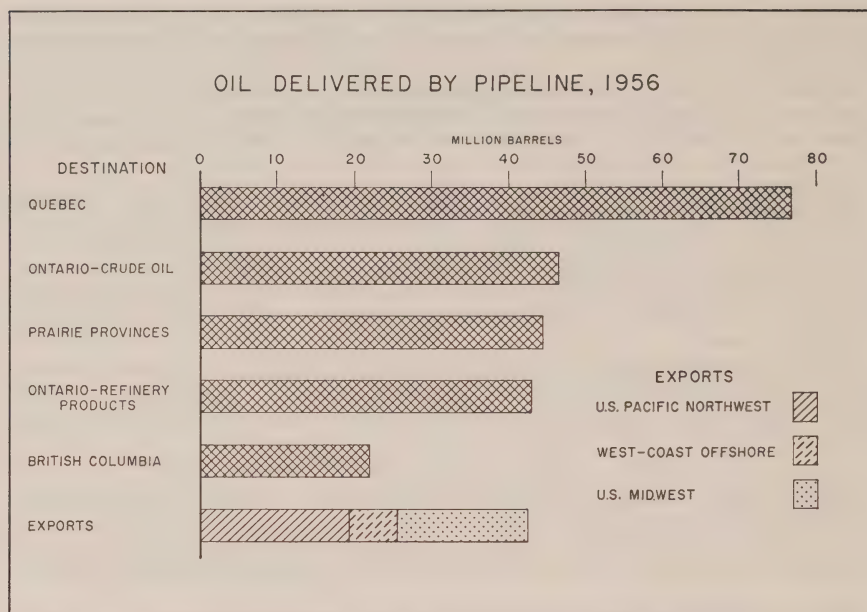
* Statistics of oil pipelines are given in greater detail in the DBS monthly report, *Pipe Lines (Oil) Statistics*.

1.—Oil Delivered by Pipeline 1952-57

| Destination | 1952 | 1953 | 1954 | 1955 | 1956 | 1957 ¹ |
|--|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| | bbl. | bbl. | bbl. | bbl. | bbl. | bbl. |
| British Columbia..... | — | 1,540,011 | 13,612,931 | 19,309,150 | 21,809,740 | 17,341,046 |
| U.S. Pacific Northwest (at Sumas, B.C.)..... | — | — | 953,403 | 11,408,992 | 19,211,435 | 19,194,536 |
| West Coast offshore shipments..... | — | — | — | — | 6,230,466 | 6,904,960 |
| Alberta ² | 16,053,757 | 16,984,749 | 16,452,608 | 18,518,740 | 17,830,462 | 9,115,600 |
| Saskatchewan..... | 11,164,892 | 14,189,654 | 14,191,691 | 15,543,202 | 16,732,869 | 11,999,034 |
| Manitoba..... | 6,109,550 | 6,158,508 | 6,743,309 | 7,514,552 | 9,961,540 | 6,958,803 |
| U.S. Midwest (at Gretna, Man.)..... | 1,424,456 | 2,507,314 | 1,435,895 | 5,246,832 | 16,867,189 | 14,030,060 |
| Ontario—crude oil..... | 20,096,308 | 28,016,817 | 33,340,688 | 41,148,261 | 46,515,517 | 30,628,218 |
| Ontario—refinery products..... | 3,093,944 | 24,868,257 | 32,441,988 | 37,894,021 | 43,022,682 | 29,820,971 |
| Quebec..... | 49,852,761 | 53,038,461 | 53,323,422 | 67,691,018 | 76,758,440 | 55,719,244 |
| Totals, Net Deliveries..... | 107,795,668 | 147,303,771 | 172,495,935 | 224,274,768 | 274,940,340 | 201,712,472 |

¹ First eight months only.

² Includes natural gasoline.



Employee and revenue data shown in Table 2 do not include statistics for eight pipelines operated as departments of the oil companies which are manned by employees on the regular payrolls of those companies.

2.—Operating Statistics of Oil Pipelines 1954-56

| Item | | 1954 | 1955 | 1956 |
|--|----------|-------------------------|------------|------------|
| Barrels Handled (gross daily average)— | | | | |
| Gathering..... | No. | 193,308 | 309,467 | 419,342 |
| Trunk..... | " | 567,940 | 778,036 | 1,014,353 |
| Barrel miles (trunk lines)..... | '000,000 | 61,912 | 83,693 | 110,992 |
| Average miles per barrel (trunk lines)..... | No. | 299 | 295 | 299 |
| Average employees..... | " | 1,185 | 1,267 | 1,500 |
| Salaries and wages..... | \$ | 5,503,329 | 6,196,071 | 7,929,889 |
| Man-hours worked by wage earners (including overtime)..... | No. | 621,700 | 683,861 | 834,493 |
| Operating revenues..... | \$ | 41,765,773 ² | 58,952,816 | 78,316,555 |

CHAPTER XX.—COMMUNICATIONS

CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

PART I.—GOVERNMENT CONTROL OVER AGENCIES OF COMMUNICATION*

The present phase of national radio broadcasting in Canada was entered upon in 1936 when, with the passage of the Canadian Broadcasting Act, the Canadian Broadcasting Corporation replaced the Canadian Radio Broadcasting Commission. The Act gave the Corporation wide powers in the operation of the system and gave to the Minister of Transport the technical control of all broadcasting stations.

Except for those matters covered by the Canadian Broadcasting Act, radio communications are now regulated under the Radio Act and Regulations which includes control of any equipment liable to cause interference to radio or television reception. In addition, all radio communication matters are administered in accordance with the provisions of the International Telecommunication Convention and Radio Regulations annexed thereto and in accordance with such regional agreements as the Inter-American Telecommunications Convention and Inter-American Agreement, and the North American Regional Broadcasting Agreement.

Land line telegraph and telephone tariffs and tolls charged by companies incorporated by the Federal Government are regulated by the Board of Transport Commissioners under the provisions of the Railway Act. Similarly, tariffs and tolls charged to the public by individuals or companies for radiotelephone communications within Canada are regulated by the Board of Transport Commissioners under the provisions of the Railway Act and the Regulations made under the Radio Act.

* Revised in the Telecommunications Branch, Department of Transport, Ottawa.

PART II.—WIRE COMMUNICATIONS*

Section 1.—Telegraphs

The early history of telegraphic communication in Canada is given in the 1934-35 Year Book, p. 778.

Telegraph Systems.—At the end of 1956, the 11 telegraph and cable companies in Canada showed impressive gains over the preceding year. These systems, composed of lines owned by the Federal Government and the chartered railway and telegraph companies, increased their property and equipment to \$150,000,000, about 20.6 p.c. above that reported by 10 companies in 1955.

New records were set in 1956 for operating revenues of \$40,720,000, up 3.6 p.c. from 1955, and net earnings of \$6,784,000, which gained almost 10 p.c. Telegrams and cables rose above 1955 totals but failed to exceed previous records. In proportion to population, Canadian facilities are among the most extensive in the world and the relative systems, with 442,900 miles of wire, operate under a great variety of climatic and geographic difficulties.

1.—Summary Statistics of Canadian Telegraphs 1947-56

NOTE.—Figures from 1920 are given in the corresponding table of previous Year Books beginning with the 1938 edition.

| Year | Gross Revenue | Operating Expenses | Net Operating Revenue | Pole-Line Mileage | Wire Mileage | Em- ployees ¹ | Offices | Messages, Land ² | Cable-grams and Marconi-grams ³ | Money Trans- ferred |
|-----------|---------------|--------------------|-----------------------|-------------------|--------------|-----------------------------|---------|--------------------------------|--|------------------------|
| | \$ | \$ | \$ | miles | miles | No. | No. | No. | No. | \$ |
| 1947..... | 18,514,525 | 17,359,796 | 1,154,729 | 51,024 | 401,803 | 8,711 | 4,640 | 18,987,774 | 1,613,621 | 10,988,591 |
| 1948..... | 19,422,788 | 20,292,402 | Dr.869,614 | 50,958 | 405,640 | 9,093 | 4,679 | 19,013,468 | 1,579,679 | 11,512,194 |
| 1949..... | 22,256,557 | 22,062,943 | 193,614 | 52,535 | 413,759 | 9,555 | 5,288 | 20,063,078 | 1,642,278 | 12,469,348 |
| 1950..... | 23,922,225 | 22,545,625 | 1,376,600 | 51,999 | 414,943 | 9,757 | 5,277 | 20,477,775 | 1,687,721 | 12,733,989 |
| 1951..... | 29,128,473 | 27,807,547 | 1,320,926 | 53,580 | 435,348 | 10,611 | 5,233 | 21,815,837 | 1,785,836 | 16,955,699 |
| 1952..... | 33,093,843 | 31,617,156 | 1,476,687 | 52,699 | 437,581 | 11,272 | 5,256 | 21,614,196 | 1,934,433 | 19,514,490 |
| 1953..... | 36,926,384 | 33,953,196 | 2,967,188 | 52,727 | 450,835 | 11,618 | 5,307 | 21,222,706 | 2,042,921 | 21,553,387 |
| 1954..... | 38,203,590 | 33,203,942 | 4,999,648 | 46,284 | 434,178 | 10,629 | 5,015 | 19,906,354 | 2,105,513 | 21,550,372 |
| 1955..... | 39,320,960 | 32,501,844 | 6,819,116 | 48,067 | 438,692 | 10,852 | 5,024 | 20,067,424 | 2,238,433 | 23,264,851 |
| 1956..... | 40,720,213 | 33,688,888 | 7,031,325 | 48,062 | 442,891 | 10,833 | 4,934 | 20,381,641 | 2,429,893 | 24,295,308 |

¹ Excludes commission operators.

² Includes messages to and from vessels on the Great Lakes and the St. Lawrence River and messages to and from stations.

³ Excludes relayed messages and includes paid wireless messages to and from ships in the Gulf of St. Lawrence and on the Atlantic Ocean.

Submarine Cables.—Four cable companies operate submarine cables landing in Canada: Canadian Overseas Telecommunication Corporation; the Commercial Cable Company; the Western Union Telegraph Company; and the French Telegraph Cable Company. These companies operate to stations in the United Kingdom, Ireland, the United States, Bermuda, Australia, New Zealand, and St. Pierre and Miquelon Islands. The number of cables operating between connected stations and the length of cables are given in the following table.

* Sections 1 and 2 of this Part were revised in the Public Finance and Transportation Division, Dominion Bureau of Statistics. The Division issues annual reports dealing with telegraph and telephone statistics. Section 3 was revised in the Telecommunications Branch, Department of Transport, Ottawa.

2.—Cable Landings in Canada 1956

| Company and Station | Cables | Nautical Miles |
|---|----------------|----------------|
| | No. | No. |
| Canadian Overseas Telecommunication Corporation— | | |
| Halifax, N.S. to St. John's, Nfld.—St. John's, Nfld. to Porthcurnow, England..... | 1 | 2,656 |
| Halifax, N.S. to Horta, Azores—Horta, Azores to Porthcurnow, England..... | 1 | 3,078 |
| Bamfield, B.C. to Sydney, Australia..... | 1 | 7,830 |
| Bamfield, B.C. to Auckland, New Zealand..... | 1 | 6,748 |
| Halifax, N.S. to Bermuda..... | 1 | 874 |
| Sydney Mines, N.S. via Newfoundland, to Oban, Scotland..... | 1 ¹ | 2,280 |
| Commercial Cable Company— | | |
| Canso, N.S. to St. John's, Nfld..... | 2 | 912 |
| Canso, N.S. to Far Rockaway, N.Y., U.S.A..... | 3 | 2,892 |
| Canso, N.S. to Horta, Fayal, Azores—Horta, Azores to Waterville, Ireland..... | 2 | 3,420 |
| St. John's, Nfld. to Waterville, Ireland..... | 4 | 7,261 |
| St. John's, Nfld. to Far Rockaway, N.Y., U.S.A..... | 2 | 2,592 |
| Western Union Telegraph Company— | | |
| North Sydney, N.S. to St. Pierre and Miquelon Islands..... | 3 | 599 |
| North Sydney, N.S. to Island Cove, Nfld..... | 2 | 635 |
| North Sydney, N.S. to Colinet, Nfld..... | 1 | 323 |
| Canso, N.S. to Duxbury, Mass., U.S.A..... | 1 | 575 |
| North Sydney, N.S. to Canso, N.S..... | 1 | 118 |
| Hearts Content, Nfld. to Valentia, Ireland..... | 3 | 5,661 |
| Bay Roberts, Nfld. to Penzance, England..... | 4 | 8,467 |
| Bay Roberts, Nfld. to Horta, Azores..... | 1 | 1,343 |
| Bay Roberts, Nfld. to Hammel, N.Y., U.S.A..... | 2 | 2,774 |
| Placentia, Nfld. to St. Pierre and Miquelon Islands..... | 2 | 250 |
| Islands Cove Hut, Nfld. to St. Pierre and Miquelon Islands..... | 1 | 130 |
| French Telegraph Cable Company— | | |
| Canso, N.S. to St. Pierre and Miquelon Islands..... | 1 | 257 |

¹ Telephone cable in service since Sept. 25, 1956.

Section 2.—Telephones

The tremendous growth of Canadian telephone systems since the War has been matched by their technological development. Automation in the Canadian telephone industry began on a large scale about thirty years ago with the introduction of dial telephones and step-by-step equipment for automatic completion of local calls. About 77 p.c. of all telephones in Canada are now served by this method and the proportion is increasing steadily. Crossbar, a type of automatic switching equipment faster and more flexible than step-by-step, is being introduced in several Ontario and Quebec communities with heavy calling volumes. The same basic type of crossbar switching, employed in the regional long-distance offices at Toronto and Montreal, enables operators to dial calls directly to telephones in many distant cities across the Continent. This system will be extended to most major centres in Canada and the United States, and the addition of automatic call accounting machines will make it possible for customers themselves to dial a large percentage of long-distance calls.

These developments in the automatic switching of long-distance calls are accompanied by advances in the provision of transmission channels on a trans-Canada basis. The first inter-system microwave radio relay chain, between Toronto and Winnipeg, was completed in 1956 by The Bell Telephone Company of Canada and the Manitoba Telephone System. Extensions eastward and westward, with Bell's existing Ontario-Quebec chain as a nucleus, will provide coast-to-coast microwave facilities for telephone and television purposes by mid-1958.

Long-distance services make possible the interconnection of practically any telephone across the country with any other, or with any of the 60,000,000 telephones in the United States. Connections are also available with more than 100 other countries and territories. Within Canada, long-distance service is provided by the separate systems and, on a nationwide scale, by seven major systems which constitute the Trans-Canada Telephone System.

Canadian manufacturing companies produce the greater part of the telephone equipment and materials used in this country. Dependable high quality is maintained and desired uniformity is made possible in operating and maintenance practices across the country.

Telephone Systems.—Telephone systems operating in Canada in 1956 numbered 2,661 as compared with 2,739 in 1955. There was a drop in both the number of small co-operative systems in rural districts and the number of shareholder-owned companies, the former decreasing to 2,172 from 2,214 and the latter to 349 from 373. The largest of the stock companies were The Bell Telephone Company of Canada, operating in Ontario and Quebec with 61 p.c. of all the telephones in Canada, and the British Columbia Telephone Company with 9 p.c. of the total. Four private companies served the Atlantic Provinces, and three systems operated by the respective provincial governments served the Prairie Provinces.

Telephone Equipment.—Because of the insistent demand for increased telephone service, the number of telephones in use in Canada has more than doubled in the past ten years. At Dec. 31, 1956, there were 4,499,325 telephones in service compared with 4,151,678 in 1955 and 2,230 597 in 1947. During 1956 a total of 347,647 telephones were installed, over 56,000 above the previous high in 1955 when installations numbered 291,409. The number of residential telephones and the number of business telephones each rose by 9 p.c. in 1956. Rural telephones were up 6 p.c. and pay telephones 4 p.c. Several exchanges were converted to dial operation in 1956 and by the end of the year 77 p.c. of all telephones in Canada were dial-operated as compared with 74 p.c. in 1955. Pole-line mileage and wire mileage continue to increase year after year.

3.—Mileages of Pole-Line and Wire and Number of Telephones in Use 1947-56

NOTE.—Figures from 1911 are given in the corresponding table of previous Year Books beginning with the 1938 edition.

| Year | Systems | Pole-Line Mileage ¹ | Mileage of Wire | Telephones in Use | | | | | |
|-----------|---------|-----------------------------------|--------------------|-------------------|-------------|--------------------|---------------|-----------|-----------------------|
| | | | | Business | Residential | Rural ² | Public Pay | Total | Per 100 Population |
| | No. | miles | miles | No. | No. | No. | No. | No. | No. |
| 1947..... | 3,056 | 232,054 | 7,285,681 | 645,154 | 1,194,840 | 354,779 | 35,824 | 2,230,597 | 17.7 |
| 1948..... | 2,992 | 235,379 | 7,913,068 | 701,869 | 1,328,373 | 383,227 | 38,399 | 2,451,868 | 19.0 |
| 1949..... | 2,971 | 242,147 | 8,725,760 | 762,294 | 1,481,876 | 414,061 | 41,381 | 2,699,612 | 19.9 |
| 1950..... | 2,912 | 245,443 | 9,488,467 | 813,352 | 1,611,759 | 447,691 | 44,290 | 2,917,092 | 21.1 |
| 1951..... | 2,904 | 249,638 | 10,330,751 | 864,015 | 1,735,355 | 467,171 | 47,225 | 3,113,766 | 22.2 |
| 1952..... | 2,888 | 253,420 | 11,265,903 | 920,269 | 1,888,889 | 492,753 | 50,455 | 3,352,366 | 23.2 |
| 1953..... | 2,793 | 257,059 | 12,307,070 | 988,489 | 2,053,944 | 513,061 | 50,913 | 3,606,407 | 24.4 |
| 1954..... | 2,788 | 257,444 | 13,357,289 | 1,053,852 | 2,213,154 | 538,660 | 54,603 | 3,860,269 | 25.4 |
| 1955..... | 2,739 | 259,784 | 14,758,160 | 1,132,436 | 2,408,959 | 552,838 | 57,445 | 4,151,678 | 26.6 |
| 1956..... | 2,661 | 269,303 | 16,410,897 | 1,229,150 | 2,625,787 | 584,484 | 59,904 | 4,499,325 | 28.0 |

¹ Includes underground conduits and buried cable. exchange lines having more than four parties.

² Includes telephones on rural exchange lines and urban

The density of telephones in the different provinces is influenced by the urbanization of the population—the number of telephones used for business purposes is much greater in cities and towns than in rural areas.

4.—Telephones in Use by Province 1955 and 1956

| Year and Province or Territory | On Individual Lines | | On 2- and 4-Party Lines | | On Rural Lines | | Private Branch Exchanges and Extensions | | Public Pay Stations | Total | Tele-phones per 100 Population |
|--------------------------------|---------------------|------------------|-------------------------|------------------|----------------|----------------|---|----------------|---------------------|------------------|--------------------------------|
| | Busi-ness | Resi-dence | Busi-ness | Resi-dence | Busi-ness | Resi-dence | Busi-ness | Resi-dence | | | |
| | No. | No. | No. | No. | No. | No. | No. | No. | | | |
| 1955 | | | | | | | | | | | |
| Nfld..... | 7,547 | 5,614 | 175 | 11,341 | 50 | 892 | 5,330 | 1,999 | 348 | 33,296 | 8.1 |
| P.E.I..... | 1,588 | 2,467 | 133 | 3,433 | 291 | 3,860 | 1,684 | 634 | 89 | 14,179 | 13.1 |
| N.S..... | 12,008 | 41,626 | 630 | 31,468 | 1,882 | 22,410 | 18,207 | 8,419 | 1,725 | 138,378 | 20.3 |
| N.B..... | 8,206 | 19,518 | 1,109 | 31,624 | 1,495 | 17,248 | 14,538 | 5,317 | 1,306 | 100,361 | 18.0 |
| Que..... | 101,594 | 240,293 | 8,618 | 355,036 | 16,314 | 91,678 | 195,890 | 54,126 | 21,128 | 1,084,677 | 24.0 |
| Ont..... | 152,634 | 313,990 | 10,922 | 616,906 | 10,464 | 178,557 | 307,363 | 115,421 | 23,000 | 1,729,257 | 33.4 |
| Man..... | 19,643 | 57,173 | 300 | 64,690 | 4,687 | 26,485 | 30,744 | 8,080 | 2,314 | 214,116 | 25.2 |
| Sask..... | 20,607 | 75,363 | 881 | 4,767 | 4,339 | 55,291 | 17,657 | 4,106 | 1,055 | 184,066 | 20.7 |
| Alta..... | 39,642 | 125,665 | 17 | 385 | 1,613 | 26,452 | 42,082 | 10,894 | 1,587 | 248,337 | 23.3 |
| B.C..... | 42,754 | 11,245 | 378 | 172,569 | 5,300 | 83,469 | 69,502 | 14,697 | 4,890 | 404,804 | 31.0 |
| Yukon..... | 20 | 6 | 33 | 87 | 25 | 36 | — | — | — | 207 | 2.1 |
| Totals..... | 406,243 | 892,960 | 23,196 | 1,292,306 | 46,460 | 506,378 | 702,997 | 223,693 | 57,445 | 4,151,678 | 26.6 |
| 1956 | | | | | | | | | | | |
| Nfld..... | 7,784 | 6,621 | 207 | 13,383 | 57 | 1,039 | 5,827 | 2,428 | 400 | 37,746 | 8.9 |
| P.E.I..... | 1,673 | 2,807 | 120 | 3,275 | 305 | 3,936 | 1,821 | 706 | 95 | 14,738 | 14.0 |
| N.S..... | 12,571 | 45,979 | 562 | 29,857 | 2,063 | 23,355 | 19,396 | 9,263 | 1,866 | 144,912 | 20.8 |
| N.B..... | 8,764 | 21,328 | 1,067 | 32,532 | 1,279 | 18,492 | 15,679 | 6,200 | 1,349 | 106,690 | 18.8 |
| Que..... | 108,304 | 275,954 | 8,134 | 377,559 | 14,096 | 97,093 | 216,915 | 67,984 | 21,403 | 1,187,442 | 25.6 |
| Ont..... | 162,007 | 390,995 | 9,576 ¹ | 609,413 | 12,297 | 188,134 | 336,929 | 134,772 | 24,043 | 1,868,166 | 35.2 |
| Man..... | 20,297 | 60,762 | 372 | 69,339 | 4,823 | 26,809 | 32,531 | 8,553 | 2,294 | 225,780 | 26.1 |
| Sask..... | 21,216 | 84,754 | 185 | 2,588 | 3,966 | 56,690 | 19,534 | 4,644 | 1,183 | 194,760 | 21.7 |
| Alta..... | 48,632 | 132,733 | 18 | 246 | 1,430 | 26,234 | 44,575 | 12,789 | 1,685 | 268,342 | 24.6 |
| B.C..... | 46,370 | 13,536 | 350 | 185,752 | 5,005 | 97,332 | 77,675 | 18,947 | 5,586 | 450,553 | 33.3 |
| Yukon..... | 25 | 6 | 34 | 82 | 28 | 21 | — | — | — | 196 | 1.8 |
| Totals..... | 437,643 | 1,035,475 | 20,625 | 1,324,026 | 45,349 | 539,135 | 770,882 | 266,286 | 59,904 | 4,499,325 | 28.2 |

¹ Ontario four-party telephones included under Rural Lines.

Telephone Calls.—The major telephone systems make counts of completed calls on representative days throughout the year and on this basis estimate the number of local conversations which, added to the actual count of long-distance calls, give their total volume of business. Estimates are included for the small systems which do not count completed calls. The number of completed calls on all systems in 1956 was estimated at 7,764,805,000 compared with 6,961,476,000 calls in 1955, or an average of 1,726 calls per telephone and 483 calls per person compared with 1,677 calls per telephone and 446 per person in 1955.

Extended area service which eliminates toll charges between adjacent communities was introduced in more centres across Canada but, despite this service, long-distance calls increased by 15,326,000 from 1954 to 1955 and by 18,193,000 from 1955 to 1956.

5.—Local and Long-Distance Calls and Average Calls per Telephone and per Capita 1947-56

NOTE.—Figures from 1928 will be found in the corresponding tables of previous Year Books beginning with the 1939 edition.

| Year | Local Calls | Long-Distance Calls | Total Calls | Total Calls per Capita ¹ | Average Calls per Telephone | | |
|-----------|---------------|---------------------|---------------|-------------------------------------|-----------------------------|---------------|-------|
| | | | | | Local | Long-Distance | Total |
| | No. | No. | No. | No. | No. | No. | No. |
| 1947..... | 3,760,569,000 | 82,695,000 | 3,843,264,000 | 306 | 1,686 | 37.1 | 1,723 |
| 1948..... | 4,025,342,000 | 91,875,000 | 4,117,217,000 | 321 | 1,642 | 37.5 | 1,680 |
| 1949..... | 4,454,024,000 | 105,232,000 | 4,559,256,000 | 339 | 1,650 | 39.0 | 1,689 |
| 1950..... | 4,894,719,000 | 117,892,000 | 5,012,611,000 | 366 | 1,678 | 40.4 | 1,718 |
| 1951..... | 5,146,238,000 | 127,406,000 | 5,273,644,000 | 376 | 1,653 | 40.9 | 1,694 |
| 1952..... | 5,482,973,000 | 126,721,000 | 5,609,694,000 | 389 | 1,635 | 37.8 | 1,673 |
| 1953..... | 5,952,756,000 | 131,899,000 | 6,084,655,000 | 412 | 1,650 | 36.6 | 1,687 |
| 1954..... | 6,209,771,000 | 137,761,000 | 6,347,532,000 | 418 | 1,608 | 35.7 | 1,644 |
| 1955..... | 6,808,389,000 | 153,087,000 | 6,961,476,000 | 446 | 1,640 | 36.8 | 1,677 |
| 1956..... | 7,593,525,000 | 171,280,000 | 7,764,805,000 | 483 | 1,688 | 38.0 | 1,726 |

¹ Per capita figures are based on official estimates of population given at p. 119.

Finances, Employees and Earnings.—The steady increases in capitalization, revenue and expenditure of telephone companies together with the increases in number of employees and salaries and wages paid are shown for the years 1947-56 in Table 6. Provincial figures for 1955 and 1956 are given in Table 7.

6.—Financial Statistics of Telephone Systems 1947-56

NOTE.—Figures from 1911 are given in the corresponding table of previous Year Books beginning with the 1938 edition.

| Year | Capital Stock | Funded Debt | Cost of Property and Equipment | Income | Expenditure | Net Income | Em- ployees | Salaries and Wages |
|-----------|---------------|-------------|--------------------------------|-------------|-------------|------------|----------------|--------------------|
| | \$ | \$ | \$ | \$ | \$ | \$ | No. | \$ |
| 1947..... | 183,469,710 | 171,810,793 | 521,183,575 | 134,066,857 | 116,623,149 | 18,043,708 | 35,578 | 66,623,983 |
| 1948..... | 194,465,399 | 238,762,614 | 615,941,540 | 150,533,349 | 131,570,434 | 18,962,915 | 38,851 | 77,497,980 |
| 1949..... | 229,208,219 | 267,987,289 | 716,519,781 | 169,113,048 | 153,066,308 | 16,046,740 | 42,326 | 90,634,477 |
| 1950..... | 274,088,405 | 286,752,783 | 806,826,198 | 198,823,483 | 178,193,661 | 20,629,822 | 45,396 | 102,093,078 |
| 1951..... | 286,003,119 | 307,623,351 | 909,581,399 | 240,762,657 | 213,824,471 | 26,938,186 | 47,387 | 117,677,652 |
| 1952..... | 335,575,292 | 378,628,224 | 1,027,527,807 | 279,001,814 | 244,506,402 | 34,495,412 | 48,207 | 131,370,832 |
| 1953..... | 398,198,697 | 450,511,233 | 1,152,309,749 | 310,833,599 | 269,817,828 | 41,015,771 | 50,540 | 145,109,934 |
| 1954..... | 418,287,016 | 498,231,715 | 1,301,545,688 | 340,623,170 | 296,384,292 | 44,238,878 | 51,929 | 159,329,238 |
| 1955..... | 467,026,669 | 521,336,006 | 1,470,679,433 | 376,716,651 | 328,880,674 | 47,835,977 | 55,673 | 173,922,973 |
| 1956..... | 549,266,657 | 583,795,407 | 1,672,363,570 | 422,370,206 | 366,117,634 | 56,252,572 | 60,121 | 193,992,142 |

7.—Financial Statistics of Telephone Systems by Province 1955 and 1956

| Year and Province | Capital Liability | Cost of Property and Equipment | Income | Expenditure | Em- ployees | Salaries and Wages |
|--------------------------|--------------------------|--------------------------------|--------------------------|--------------------------|--------------------|------------------------|
| | \$ | \$ | \$ | \$ | No. | \$ |
| 1955 | | | | | | |
| Newfoundland..... | 5,284,275 | 7,568,743 | 1,491,983 | 1,194,239 | 336 | 630,785 |
| Prince Edward Island.... | 2,730,286 | 3,811,413 | 986,030 | 862,463 | 144 | 304,552 |
| Nova Scotia..... | 34,755,000 | 44,223,846 | 11,065,553 | 9,430,525 | 1,774 | 4,429,166 |
| New Brunswick..... | 30,343,530 | 39,780,444 | 9,096,372 | 7,697,558 | 1,494 | 3,708,920 |
| Quebec..... | 627,503,783 ¹ | 388,041,215 | 256,721,038 ¹ | 223,526,203 ¹ | 15,594 | 53,365,653 |
| Ontario..... | 14,643,812 | 607,848,356 | 9,225,127 | 7,870,331 | 22,048 | 69,995,324 |
| Manitoba..... | 55,756,093 | 83,214,578 | 13,562,157 | 13,229,452 | 3,173 | 8,497,110 |
| Saskatchewan..... | 55,749,521 | 75,418,346 | 16,248,199 | 13,745,333 | 1,862 ² | 5,573,530 ² |
| Alberta..... | 59,388,900 | 87,508,845 | 20,563,676 | 18,141,001 | 3,141 | 9,006,119 |
| British Columbia..... | 102,142,475 | 133,230,447 | 37,740,684 | 33,166,924 | 6,103 | 18,397,210 |
| Yukon..... | 65,000 | 33,200 | 15,832 | 16,645 | 4 | 14,604 |
| Totals, 1955..... | 988,362,675 | 1,470,679,433 | 376,716,651 | 328,880,674 | 55,673 | 173,922,973 |
| 1956 | | | | | | |
| Newfoundland..... | 7,087,125 | 9,226,970 | 1,817,218 | 1,310,649 | 384 | 735,584 |
| Prince Edward Island.... | 3,112,529 | 4,257,948 | 980,291 | 857,901 | 159 | 385,865 |
| Nova Scotia..... | 38,234,592 | 49,796,226 | 12,073,818 | 10,226,172 | 1,838 | 4,884,365 |
| New Brunswick..... | 35,484,523 | 46,624,588 | 10,023,491 | 8,607,014 | 1,609 | 4,197,119 |
| Quebec..... | 715,194,636 ¹ | 439,530,522 | 287,595,908 ¹ | 251,325,598 ¹ | 16,853 | 59,710,920 |
| Ontario..... | 16,929,421 | 681,001,461 | 9,871,693 | 8,306,497 | 24,086 | 78,565,599 |
| Manitoba..... | 62,735,069 | 95,214,785 | 16,122,476 | 14,405,628 | 3,213 | 9,034,565 |
| Saskatchewan..... | 63,833,661 | 87,060,358 | 18,098,725 | 15,311,982 | 1,948 ² | 6,178,253 ² |
| Alberta..... | 64,909,289 | 98,896,213 | 23,088,309 | 18,659,270 | 3,371 | 9,930,496 |
| British Columbia..... | 125,476,219 | 160,721,269 | 42,677,731 | 36,988,374 | 6,657 | 20,355,002 |
| Yukon..... | 65,000 | 33,200 | 15,631 | 18,549 | 3 | 14,374 |
| Totals, 1956..... | 1,133,062,064 | 1,672,363,570 | 422,370,206 | 366,117,634 | 60,121 | 193,992,142 |

¹ Statistics of The Bell Telephone Company for both Quebec and Ontario are included under Quebec.

² Excludes wages and employees for rural systems.

Section 3.—Federal Government Telegraph and Telephone Service

There are some scattered settlements throughout Canada where commercial telephone and telegraph companies do not furnish service, yet where adequate communication must be provided in the public interest. The Federal Government, therefore, through the Minister of Transport, has assumed responsibility for such services as: telegraph and telephone connections to scattered settlements on Cape Breton Island; cable services to islands in the Bay of Fundy and Prince Edward Island; certain telegraph lines and a telephone service in the Peace River district of Alberta; and a telephone service on the Magdalen Islands and in other areas of the Province of Quebec.

At Dec. 31, 1956, the telegraph and telephone service comprised 1,745 miles of pole line, 3,244 miles of open wire, 30 miles of aerial cable, 95 miles of submarine cable, and eight radio stations. It provided telephone service for 1,732 subscribers with telephones, of whom 444 were served through lines connected to other company exchanges. There were 89,064 telegraph messages handled by this service in 1956, operating expenses were \$444,871 and net revenues \$129,817.

The Northwest Communication System is operated for the Government by the Canadian National Telegraphs. It extends northwesterly from Edmonton to the Yukon-Alaska border and comprises 1,859 miles of pole line, 71,550 circuit-miles for telegraph purposes and 35,354 circuit-miles for telephone connections. The System provides commercial telephone and telegraph services at airports, settlements and communities in

northwest Canada, including Whitehorse, Y.T., and Dawson Creek and Fort St. John, B.C. During 1956, 130,669 telephone calls and 80,781 telegraph messages were handled, revenue amounted to \$2,410,402 and expenditure for operating and maintaining the System was \$1,893,862.

PART III.—RADIO COMMUNICATIONS*

Section 1.—Federal Radio Communication Services

The administration and regulation of radio communication in Canada is carried out by the Telecommunications Branch of the Department of Transport. The radio activities of the Branch may be summarized as follows: (1) the administration of national and international radio laws and regulations and of regional agreements, involving the issuance of radio licences, inspection of radio stations, certification of radio equipment, examination of operators, allocation and monitoring of frequencies, study of radio wave propagation, compilation and settling of international accounts for radio messages, investigation and suppression of inductive interference to radio reception; and (2) construction, maintenance and operation of radio communication stations and radio aids to marine and air navigation. (See also pp. 894-896.)

National and international radio laws and regulations include: the Canadian Broadcasting Act, the Radio Act and Regulations made thereunder; the International Telecommunication Convention and Radio Regulations annexed thereto; the Inter-American Radiocommunications Convention; the Inter-American Arrangement Concerning Radiocommunications; the North American Regional Broadcasting Agreement; those Articles of the International Civil Aviation Convention applicable to aeronautical radio requirements; the Canada Shipping Act and Radio Regulations for Ship Stations issued thereunder, and that part of the International Convention for the Safety of Life at Sea applicable to radio requirements for ships.

Licensing and Operation.—In all branches of radio, basic control is exercised over the right to establish a station, assignment of frequencies, operator standards, operating procedure, and general regulations concerning the manner in which radio stations are used.

Under the Broadcasting Act reasonably complete and technically acceptable applications for licences to establish broadcasting stations, or for modification of existing stations, are referred to the Canadian Broadcasting Corporation for its recommendations to the Minister of Transport before being finally dealt with by the Department of Transport. The Canadian Broadcasting Corporation also controls the linking-up of stations that form networks and, in addition, the character of programs being broadcast. With these exceptions, the control of broadcasting stations is carried out by the Telecommunications Branch of the Department of Transport.

The standard broadcast band is crowded with stations that are capable of interfering with one another over the entire North American region, particularly at night. A plan for the accommodation of the largest number of stations with the least interference was evolved as a result of extensive studies conducted by Canada, Cuba, the Dominican Republic, Haiti, the Bahama Islands, Mexico, and the United States and was embodied in the North American Regional Broadcasting Agreement.

Before a new standard broadcasting station can be licensed or before modifications can be made in an existing station, engineering briefs covering the selection or change of frequency, amount of power and design of the directional antenna system must be approved by the Department of Transport and notification sent to the signatory countries of the North American Regional Broadcasting Agreement. After the establishment or change is completed, proof of performance must be submitted to establish that the actual installation is in accordance with the approved plan.

* Except where otherwise indicated, this Part has been revised or prepared by the Department of Transport, Ottawa.

The allocation of high frequencies and their efficient utilization requires reasonably accurate information on the transmission properties of the ionosphere which vary with the season, the sunspot cycle and other factors. This information is obtained from hourly measurements of the ionosphere made at some 70 points throughout the world and analyzed and correlated by the Radio Physics Laboratory, Defence Research Board, Ottawa, and by the United States Bureau of Standards at Washington, D.C. The Canadian measurement stations are located at St. John's, Nfld.; Resolute Bay, Cornwallis Island and Baker Lake, N.W.T.; Fort Chimo, Que.; Churchill and Headingly, Man.; Ottawa, Ont.; and Prince Rupert, B.C. Eight frequency monitoring stations are maintained at suitable points across Canada to check operating frequencies of all classes of radio stations to ensure that they do not depart from the assigned frequency by an amount greater than that permitted by the international conventions.

Under the Safety of Life at Sea Convention and the Canada Shipping Act, most passenger ships and larger cargo ships must be fitted with radiotelegraph or radiotelephone equipment, primarily for distress use. Approval is given for each make and model of equipment that comes up to the required standard and, in addition, the ship station as a whole is inspected before the licence is issued and periodically thereafter. Foreign ships are subject to inspection before sailing from Canadian ports to ensure that they conform with the requirements of the Safety of Life at Sea Convention. Also, certain passenger, cargo, and other ships plying the Great Lakes are inspected to ensure compliance with the requirements of the Agreement between Canada and the United States for the Promotion of Safety on the Great Lakes by means of Radio.

Standards have been developed for the installation of aircraft radio stations specifying in detail the techniques and materials that may be used, to ensure that such stations will satisfactorily perform the function for which they are intended. Rigid standards are also in effect for the environmental testing of individual units of aircraft radio equipment, and approval is given to manufacturers for each model of equipment which has been demonstrated to meet the requirements. Inspections of radio stations aboard civil aircraft of all operational categories are carried out at prescribed periods. In-flight inspections of the radio communications and navigational aspects of proposed new air carrier operations, encompassing both land and oceanic routes, are also made as required.

Marine and aeronautical radio operator standards and related regulations are covered by international agreement. The International Telecommunication Convention prescribes the qualifications for radio operators on mobile stations and the Radio Act provides that all operators, both commercial and amateur, must pass examinations to prove their ability to operate the respective classes of stations on which they are engaged. Competent operators are required on all classes of stations in order that the technical requirements prescribed under international agreement be adhered to closely; they are particularly essential on ship and aircraft stations in the interests of safety of life.

Investigation and Suppression of Inductive Interference.—Under the Radio Act the use of electrical equipment that will produce harmful interference to broadcast reception is not permitted. The Telecommunications Branch of the Department of Transport maintains 60 cars equipped for measuring and locating sources of interference to broadcast reception. In addition to locating the sources of interference, advice is given as to how it may be suppressed or eliminated. These cars operate from the permanent radio inspection offices located in 27 cities throughout Canada. During the year 1956, 11,355 sources of interference were located and suppression was obtained in all but a few cases. Power lines were the largest single source of interference, constituting 37 p.c. of the total. Apart from cases of actual interference, the Branch also gives technical advice and assistance to manufacturers of electrical apparatus, in reducing to acceptable levels the radio noise (interference) produced by such apparatus.

Industrial, scientific and medical apparatus is brought under strict control in accordance with Regulations for Controlling Radio Interference and under the authority of the Radio Act. Regulations require that radiation from such apparatus, which is liable

to cause interference to radio communications, must be suppressed either by shielding or by replacing the apparatus with a non-interfering type. The Department of Transport conducts type tests on diathermy and industrial heating apparatus submitted by manufacturers, and the types that fulfil the requirements of the Department are listed as non-interfering. The radiation from all such sources on communication frequencies must not exceed the tolerances specified by the Canadian Standards Association.

Radio Revenue.—Regulations concerning the rendering and settlement of international accounts are contained in the International Telecommunication Convention and Regulations. Sources of revenue include commercial ship and inter-station messages handled by Departmental ships and land stations, radiotelegrams exchanged by foreign ships through Canadian coast stations, private commercial traffic via Departmental airway radio stations, and radio services rendered to aircraft of private airline companies by such stations. During the year ended Mar. 31, 1956, there were 1,119,987 messages handled over marine stations consisting of 43,670,839 words. The revenue therefrom, together with revenue from aeronautical messages and from licence fees, examination fees, fines and forfeitures, rentals, etc., are given in Table 1.

1.—Radio Revenue Collected by the Department of Transport, Year Ended Mar. 31, 1956

| Stations | Revenue |
|---|------------------|
| | \$ |
| Marine Messages | 211,880 |
| East Coast..... | 105,220 |
| Great Lakes..... | 29,172 |
| West Coast..... | 55,324 |
| Hudson Bay and Strait..... | 9,081 |
| Premium revenue..... | 13,083 |
| Aeronautical Messages | 430,009 |
| Private, commercial and aeronautical messages..... | 55,437 |
| Radio service to airline companies..... | 374,572 |
| Other Radio Revenue | 420,916 |
| Examination fees—Radiotelegraph Operators' Certificates of Proficiency..... | 1,703 |
| Fines and forfeitures under the Radio Act..... | 196 |
| Licence fees (excl. private commercial broadcasting stations)..... | 205,488 |
| Rentals..... | 184,501 |
| Miscellaneous..... | 38,028 |
| Totals | 1,071,805 |
| Collected from the issuance of private commercial broadcasting stations licences..... | 355,884 |

**THE TELECOMMUNICATIONS BRANCH OF THE
DEPARTMENT OF TRANSPORT**

Radio in Canada traces its origin to the year 1900 when wireless telegraphy was introduced and placed under the jurisdiction of the Department of Public Works. The first commercial radio circuit was established between Chateau Bay, Que., and Belle Isle in the Strait of Belle Isle in 1901, replacing an underwater cable which was difficult to maintain. In the first days of radio there did not appear to be any necessity for special legislative control, but the growth of this new medium of communication was very rapid and the Wireless Telegraph Act of 1905 became the first legislation in Canada controlling radio communication.

Radio regulation and radio coast station services were under the jurisdiction of the Department of Public Works until 1909 at which time they were transferred to the Department of Marine and Fisheries where they remained until 1930, with the exception of the period 1914-1922 when they were under the jurisdiction of the Department of Naval

Services. In 1930, when a separate Marine portfolio was established, they became a Branch of that Department and then in 1936 a Division of the Air Services Branch of the newly formed Department of Transport. In 1936 an aviation radio service was organized within the Radio Division, and to it in 1948 was transferred the Government Telegraph and Telephone Service, which had been under the jurisdiction of the Department of Public Works since 1879. In 1950, the name was changed to Telecommunications Division, and later to Telecommunications Branch.

The present responsibilities of the Telecommunications Branch include the operation of radio aids to marine and air navigation, the regulation of all Canadian radio operations, the regulation of overseas cable communication services, the administration of the international telegraph regulations and operation of certain communication services for the public and for the handling of meteorological messages.

Since the end of the War in 1945 a number of radio aids to air navigation have been introduced, many of which were the result of wartime development, although much additional work was necessary to make them acceptable for service to civil aircraft. Through the medium of the International Civil Aviation Organization (ICAO), established in December 1944, it has been possible for participating administrations to reach agreement on desired systems and procedures. Probably no other single factor has contributed so much to the expansion of co-ordinated aviation telecommunications. Typical of new systems are the Instrument Landing Systems (ILS), Ground Control Approach (GCA), the Very High Frequency Omni-directional Ranges (VOR), and Surveillance Radar (see pp. 897-898). Also of importance to air navigation has been the development of integrated communication networks by landline and radio for the transmission of air traffic control and general airline operational messages. As these networks become more extensive and messages flow between a larger number of points, complicated relay stations are needed to keep message handling-time low. One of these relay stations has recently been constructed in the new signal centre at Gander, Nfld.

For all point-to-point communication systems, the trend has been toward automatic methods, as evident by the conversion of many radio circuits to radio teletype operation. In the field of international air-ground communication, the important development has been the changeover from radiotelegraph to radiotelephone. For the handling of meteorological data, facsimile has been introduced. Maps are transmitted by this means over both commercial and Department of Transport radio circuits, many of which have been especially designed for the purpose.

During the past ten years emphasis has been given to the modernizing of radio equipment used in aiding marine navigation. The development of efficient shipborne radar has minimized to some extent the need for new types of short-range navigation aid stations on shore. However, better medium-distance aid became necessary and was satisfied by the continuation and improvement of the wartime LORAN system. In ship-shore communications there has been a changeover from radiotelegraph to radiotelephone and a substantial expansion of the latter service for inland and coastal shipping. Of major significance in this connection is the Great Lakes Agreement with the United States respecting radiotelephone operation.

The number of radio stations regulated under the Radio Act and the Canada Shipping Act increased from 8,762 at Mar. 31, 1947, to 26,998 at Mar. 31, 1955. At the end of the War there was a large pent-up demand for new radio systems, both public and private. International planning, which is conducted by the International Telecommunications Union, was postponed during the war period, and at the first postwar Conference held at Atlantic City in 1947 all of the vast technological development that had taken place before and during the War had to be considered. Since the 1947 meeting there has been a series of subsidiary conferences notable among which was the Extraordinary Administrative Radio Conference in Geneva in 1951, at which a major step in international frequency planning was taken through the development of an implementation program for the allocation tables adopted at Atlantic City. Implementation of the new frequency arrangement is nearing completion.

The major developments in radio services in the past ten years include: broadcasting—both sound radio and television; telephone and telegraph company microwave systems; and mobile radio service for fire and police departments, taxis, railroads, power and oil distribution, construction operations, etc. The major build-up in military radio defence systems has also been most significant, particularly those installed in Canada by United States forces, because these are fully subject to the provisions of the Radio Act.

Most radio systems are becoming increasingly complex as new types of equipment are installed. For instance, the radio relay apparatus used by telephone and telegraph companies is capable of providing hundreds of circuits on one radio transmitter. Sound radio broadcasting has made use of complex directional antennae to permit the establishment of many more stations than previously thought possible with the limited number of channels available.

It may be noted that it has been the policy in recent years to turn, wherever possible, government-owned telegraph facilities over to private communication interests operating in the areas concerned. Some expansion of public communication services has taken place in other areas, but largely as a by-product at stations established for other purposes.

In addition to the radio services under its own control the Department of Transport is concerned with the regulation of the radio services of other government departments, public and private radio services including radio stations on ships and aircraft registered in Canada, with special reference to the assignment of suitable frequencies and the application of techniques compatible with frequency planning. The following Federal Government departments and agencies use radio to facilitate their operations: the Department of National Defence, the Department of Agriculture, the Department of Citizenship and Immigration, the Department of Fisheries, the Department of Mines and Technical Surveys, the Department of National Health and Welfare, the Department of National Revenue, the Department of Public Works, the Department of Northern Affairs and National Resources, the National Research Council and the Royal Canadian Mounted Police.

Subsection 1.—Radio Services

Services of the Telecommunications Branch of the Department of Transport in aid of marine and aeronautical navigation and meteorological communications are described in this subsection. Details may be obtained on request from the Department of Transport, Ottawa.

Radio Aids to Marine Navigation.—Radio aids to marine navigation are provided for about 4,000 radio-equipped Canadian vessels and almost as many foreign ships using Canadian waters. A safety and communications service for shipping is provided covering the East and West Coasts, the Great Lakes, the St. Lawrence River and Gulf, Hudson Bay and Hudson Strait.

Coast Radio Stations.—Coast stations provide a safety watch and communications service for ships at sea and provide, as well, regularly broadcast weather reports, storm warnings and notices of dangers to navigation. The stations carry out communications by radiotelegraph and/or radiotelephone, and many of them provide connections to land telephone lines so that ships may communicate directly with any telephone subscriber. At Halifax (CFH) and Vancouver (CKN), shortwave facilities are furnished for world-wide communications. These stations participate in the Commonwealth long-range ship communication scheme.

The coast stations on Hudson Bay and Hudson Strait, in addition to the regular services, provide commercial communications for posts of the Hudson's Bay Company and various prospecting and development organizations, make weather observations, handle administrative traffic and assist aircraft with information, landing conditions and direction finding bearings.

Direction Finding Service.—Coast radio direction finding stations, operated on the Atlantic Coast and on Hudson Bay and Strait, enable ships to obtain a line of bearing from the station. No charge is made for this service.

A chain of automatic radiobeacon stations is also maintained to provide a navigational aid to mariners by transmitting signals on which bearings may be taken by ships. These stations are arranged, where possible, in groups of three, transmitting on a common frequency but in proper time sequence so as to avoid interfering with one another. A navigator may thus obtain three bearings within three consecutive minutes and fix his location. A number of radiobeacons are synchronized with fog alarms at the same point, for distance finding in foggy weather. Ships may also request the transmission of signals from the coast stations for direction finding purposes.

Loran Stations.—Loran is a long-range radio aid to marine and air navigation which provides accurate fixes at distances up to 600 miles by day and 1,500 miles by night. Two Loran stations operate in Nova Scotia, three in Newfoundland and one on the West Coast. These stations, in conjunction with Loran stations of the United States Coast Guard, give service to ships and aircraft plying the North Atlantic and Pacific Oceans.

Radar.—It has become general practice to equip merchant ships with radar, a valuable aid to marine navigation, and many important buoys are fitted with radar reflectors to increase their radar visibility. Two shore-based radar installations are in operation—one at Camperdown near the mouth of Halifax Harbour and the other on the Lion's Gate Bridge across the entrance to Vancouver Harbour.

Miscellaneous Services.—Lighthouses, particularly at locations where they would otherwise be completely cut off from summoning help in case of illness, are provided with low-power transceivers for use in emergencies. Lighthouse radiophone stations are organized into groups working into a control station.

Ships at sea may obtain medical advice from any coast station. The messages are delivered to the port medical officer of the Department of National Health and Welfare and replies are transmitted to the ship free of charge.

Radio and radar equipment used aboard vessels of the federal marine, pilotage and canal services, on vessels operated by the Department of Fisheries, the Department of Mines and Technical Surveys and the Department of National Revenue and on Canadian National Railway ferries is maintained by the Telecommunications Branch of the Department of Transport.

Radio Aids to Aeronautical Navigation.—Radio aids to air navigation are provided from coast to coast and from the Canada-United States border to the Arctic along and off the airways, and are used by many Canadian and foreign air carriers flying over Canadian territory. Trained engineers and technicians are assigned to six district offices located at Vancouver, B.C., Edmonton, Alta., Winnipeg, Man., Toronto, Ont., Montreal, Que., and Moncton, N.B., to carry out the construction and efficient operation of facilities.

Radio Ranges.—The principal radio aid to air navigation provided by the Department of Transport is the low-frequency radio range station, located approximately every hundred miles along airways. It provides specific track guidance to pilots by means of audible signals and the signals may also be used for the purpose of obtaining direction finding bearings. In addition, radiotelephone communications are provided between ground and aircraft, by which means pilots may obtain weather data, air traffic control instructions and other information concerning the safety of flights.

There are now being constructed a number of very high frequency omni-directional ranges (VOR). Unlike the existing radio range stations, this type of facility does not limit the aircraft using the station to one of four distinct courses, but enables the pilot to select his desired course. A six-station omni-range airway between Montreal, Que., and Windsor, Ont., with standard 200-watt installations located at Montreal, Ottawa, Stirling, Toronto, London and Windsor is in operation. Work is progressing on six additional stations for a high-altitude airway from Toronto, Ont., to Winnipeg, Man., and on one isolated station at Gander, Nfld.

Beacons, Markers, etc.—Aeronautical radiobeacon stations provide radio signals with which pilots may use their direction finding equipment to obtain relative directional bearings. Fan markers, operating on very high frequencies, are usually placed on an airway so as to inform the pilot when he may safely lose altitude after passing high terrain or to indicate accurately the distance from an airport. Station location markers are similar to fan markers except that the signal radiated is such that aircraft may receive the same indication irrespective of the direction of flight. They are installed at the same location as a radio range to enable a pilot to determine when he is exactly over the station, thus obtaining definite indication of position. Station location markers are installed at most radio range sites.

Radar.—Long-range (150 nautical-mile) surveillance radars are being installed at 15 major airports from Halifax to Vancouver for air traffic control purposes. Short-range (40 nautical-mile) radars will also be installed at Montreal, Toronto, Winnipeg and Vancouver airports. A 50-mile range surveillance radar at Gander forms part of a complete ground controlled approach radar facility.

Instrument Landing Systems.—Instrument landing systems provide radio signals which, when received by special radio equipment aboard aircraft, permit pilots to approach airports for landing during periods of very low visibility. An installation normally consists of a localizer transmitter providing lateral guidance to the runway, a glide path transmitter for slope guidance to the approach end of the runway, two marker transmitters giving distance indications from the runway and a low-power radiobeacon (compass locator) to assist in holding procedures and lining up on the localizer course. The localizer and marker transmitters operate on very high frequencies, the glide path on ultra high frequencies and the compass locators on low and medium frequencies. Twenty-six instrument landing systems are in operation.

Aeronautical Communications Stations.—To assist in providing communication between aircraft and ground, radio stations are located at strategic points across the country, including the Arctic. These stations, operating for the most part on high frequencies, provide communication to both domestic and international air carriers. The international communications stations form a major contribution on the part of Canada to international aviation. They may be grouped as follows: (1) communication for meteorological services; (2) communication for the air traffic control services; and (3) communication for the benefit of the airline operating agencies, with their aircraft and between their despatch offices.

Meteorological Communications Stations.—Six stations whose primary function is weather reporting are located at strategic points throughout the country from coast to coast and into the Far North; some are located in remote areas where radio is the only means of communication.

Supplementing the facsimile wire-line services, the transmission of weather maps is extended by radio to points in northern Canada that cannot be served by wire lines.

Subsection 2.—External Telecommunication Services

The Canadian Overseas Telecommunication Corporation was established in 1950 to maintain and operate, in Canada and elsewhere, external telecommunication services for the conduct of public communications by cable, radiotelegraph and radiotelephone, and any other means of telecommunication between Canada and any other place, and between Newfoundland and any other part of Canada; to make use of all developments in cable and radio transmission and reception for external telecommunication services; to conduct investigations and research with the object of improving the telecommunication service generally and to co-ordinate Canada's external telecommunication services with the telecommunication services of other parts of the Commonwealth.

Soon after its establishment, the Corporation embarked on a program of expansion of overseas services designed to meet anticipated requirements of the future. In November 1953, the Corporation, on behalf of Canada, entered into an agreement with interests in the United States for the construction and maintenance of a transatlantic telephone cable. The laying of the first section of the cable started from Clarendville, Nfld., in June 1955, and the whole system was placed in service on Sept. 25, 1956. Total cost of the project amounted to approximately \$40,000,000 of which the Corporation's share was about one-tenth. A second transatlantic cable will be laid by 1961 and will be financed by the United Kingdom and Canadian Governments. It will provide 60 telephone circuits, each capable of being transposed into 48 telegraph circuits.

Transpacific radiotelephone and radiotelegraph services began operating from Vancouver to Australia and New Zealand on Nov. 1, 1956. Direct radiotelegraph service to Japan commenced in June 1957. Augmentation of overseas radiotelegraph facilities at Yamachiche and Drummondville, Que., became necessary as a result of the expansion of existing services and the introduction of new direct radiotelegraph circuits.

In December 1956, the Corporation initiated and brought into service International Telex, an overseas teleprinter switching system by means of which the user can teletype directly to a correspondent. Service is available across Canada.

Section 2.—Other Government, Miscellaneous and Commercial Radio Communication Services

Radio services have been established by all provincial governments, mainly for police, highway and forestry protection purposes.

Municipal government departments have steadily increased their use of radio to facilitate operations. This increase is noted in all municipal services using radio as a medium of communication with vehicles, i.e., police, fire, engineering, hydro, etc. In addition, the trend toward expansion in the employment of radio for urban mobile communication has shown no signs of abating. Such services as taxi, heavy construction, ready-mix concrete, oil pipeline construction and operation, veterinarian and rural medical have participated extensively in this increase. Public mobile radio relay message services (telephone answering service) have also been licensed to operate in most of the larger cities.

Public utilities, power companies, provincial power commissions, oil exploration and mineral development organizations have considerably expanded their use of radio in both urban mobile and point-to-point radio fields.

Commercial Radio Communication Services.—The North-West Telephone Company operates a radiotelephone service between points in British Columbia not hitherto served by telephone. Under licences granted by the Department of Transport, the Company has established a number of permanent public commercial radiotelephone stations that are authorized to provide communication to private commercial radiotelephone stations located at isolated points in the Province. The Company is also licensed to establish limited coast stations at Lulu Island, Powell River, Vancouver, Nanaimo, Victoria, Harrison Lake, Parksville, Alert Bay, Campbell River, Hardwicke Island, Halberg, Sumas Mountain, and Prince Rupert, B.C., to provide a ship-to-shore service. These stations, used in conjunction with the ordinary telephone exchange, provide a duplex-radiotelephone service to isolated points and to certain ships at sea. They also provide a limited amount of service to stations of the land mobile category.

The North-West Telephone Company is also licensed to provide emergency radio-telephone communication at any point in British Columbia and to carry out tests for extending the existing radiotelephone service throughout the Province.

To provide trans-river communication in the lower St. Lawrence area, the following companies operate stations in the Province of Quebec at La Malbaie, Tadoussac, Rivière-du-Loup, Rimouski, Matane, Montmagny, St. Antoine, Île aux Grues, Cap Chat, Forestville, Trinity Bay, Sept-Îles, Baie Comeau, Clarke City, Gaspé Copper Mines, Mont Louis, Chicoutimi, and Tour à Pica: La Compagnie de Téléphone de Charlevoix et Saguenay, La Compagnie de Téléphone de Kamouraska, the Quebec Telephone Corporation, Gulf of St. Lawrence Telephone Company and La Compagnie du Téléphone Saguenay.

The wire facilities between Saint John, N.B., and Digby, N.S., between Saint John, N.B., and Halifax, N.S., between Red Head, N.B., and Mount Hanley, N.S., between Lutz Mountain (Moncton), N.B., and Egmont, P.E.I., and between Charlottetown, P.E.I., and New Glasgow, N.S., are supplemented by radiotelephone connections.

Stations at Saint John, Red Head, and Lutz Mountain (Moncton) are operated by the New Brunswick Telephone Company. The terminals at Digby, Halifax, New Glasgow and Mount Hanley are operated by the Maritime Telephone and Telegraph Company. The stations at Charlottetown and Egmont are operated by the Island Telephone Company.

The Bell Telephone Company of Canada provides a land mobile terminal radio-telephone service at numerous points in Ontario and operates a microwave link between Toronto and Ottawa, Ont., and Montreal, Que., which carries television programs and is capable of providing many additional telephone circuits. Radio links are also maintained between Pelee Island and Leamington, Ont., and across the St. Lawrence between Sorel and Joliette, Que.

The Canadian National Railway Company operates an extensive radiotelegraph and radiotelephone service in Newfoundland including links between Table Mountain, Nfld., Cape North, N.S., and New Waterford, N.S. This Company is also authorized to provide a limited coast-station service at Port aux Basques, Nfld.

The Canadian National Railway Company and the Canadian Pacific Railway Company have jointly established microwave circuits between Toronto and Windsor, and between Montreal and Quebec City.

The Avalon Telephone Company operates public commercial stations in Newfoundland to supplement its wire lines and to provide telephonic communication with isolated communities.

The Manitoba Telephone System operates radiotelephone links involving stations at the following points: Riverton, Manigotagan, Hecla Island, Gimli, Norway House, Bissett, Great Falls, The Pas, Snow Lake and Winnipeg. In addition, the System operates stations at Gimli, The Pas and Norway House to provide terminal service for ships operating on Lake Winnipeg.

Norwesto Communications Limited operates a public commercial radiotelephone service to provide telephonic communication to privately owned stations at isolated points throughout the northwestern part of the Province of Ontario. Stations are located at Kenora, Red Lake, Ball Lake, Sioux Narrows, Dryden, Sioux Lookout, Minaki and Redditt, which are used in conjunction with the ordinary telephone exchanges.

The Red Lake Telephone Company operates a public commercial radiotelephone station at Madsen, Ont., to provide a connection between the local wire telephone system and the Norwesto Communications Limited network.

The Okanagan Telephone Company operates a public radiotelephone service between Revelstoke and Arrowhead, B.C., and a public commercial terminal station at Kelowna to provide telephonic communication to privately owned stations at isolated points in the Kelowna area.

Section 3.—Broadcasting in Canada*

Broadcasting in Canada as it has developed over a period of more than thirty-five years is a combination of public and private enterprise. Under the Canadian Broadcasting Act (R.S.C. 1952, c. 32), authority for broadcasting service is vested in a Board of eleven Governors, appointed by the Governor General in Council and chosen to give representation to the principal geographical divisions of Canada. The Board is directly responsible to Parliament for carrying on a national broadcasting service in Canada and for the policies of the Canadian Broadcasting Corporation. It also administers and supervises regulations pertaining to broadcasting which are observed by both the CBC and privately owned stations.

As of Mar. 31, 1957, there were 22 CBC radio stations and ten CBC television stations; 203 privately owned radio stations and 30 privately owned television stations. All the privately owned television stations and many of the privately owned radio stations operate in partnership with the CBC in helping to distribute national radio and television services over five networks operated by the CBC—in radio, the Trans-Canada, Dominion and French networks, and in television, the English and French networks.

The privately owned stations are subject to licensing control by the Department of Transport and to CBC regulations authorized by Parliament. Their primary purpose is to provide community service in the locality where they are situated. Many stations are located in small urban centres and serve, as well, the larger population located in the surrounding rural areas. Others serve cities and their surrounding towns and rural areas, providing alternative programs to those of the CBC. In sparsely populated areas where privately owned stations would not be economical the CBC provides service through unattended, low-power relay transmitters. Many of the privately owned stations form an integral part of the national networks as outlets for national service programming.

The Chairman of the Board of Governors is required to devote the whole of his time to the performance of his duties under the Act. Members of the Board are not paid and must take an oath of office disclaiming any personal interests in broadcasting, and review broadcasting activities in Canada generally in the interests of the country as a whole. Policy is determined and supervised by the Board but day-to-day operations and executive direction of the CBC are conducted by the General Manager. The CBC is responsible for the regulations controlling the establishment of networks and the proportion of time that may be devoted to advertising in broadcast programs, but it neither exercises nor authorizes any private station to exercise on its behalf, censorship of any broadcast program. The responsibility of observing regulations rests with individual station management.

The general principles of this system, as established by Parliament, have been approved by fourteen Parliamentary Committees and two Royal Commissions.

Radio Broadcasting Facilities.—As stated above, the CBC operates three networks: the Trans-Canada and Dominion networks serving English language audiences from the Atlantic to the Pacific, and the French language network extending from Moncton, N.B., to Edmonton, Alta. As at Mar. 31, 1957, the Trans-Canada network was made up of 26 basic stations—13 CBC-owned and 13 privately owned. There were 19 supplementary stations, four of which were CBC-owned Newfoundland stations. The Dominion network consisted of 31 basic stations of which 30 were privately owned. Nineteen supplementary privately owned stations also received Dominion network service. The French network had five basic stations, four of which were CBC-owned and one privately owned, and 20 privately owned affiliated supplementary stations.

Table 2 lists the broadcasting stations of the CBC radio networks.

* Prepared under the direction of J. A. Ouimet, General Manager, Canadian Broadcasting Corporation, Ottawa. The history of the Canadian Broadcasting Corporation is given in the 1947 Year Book, pp. 737-740.

2.—Broadcasting Stations of CBC Radio Networks as at Mar. 31, 1957

NOTE.—The stations marked with an asterisk (*) are CBC-owned. The symbols used in the Power column have the following meanings: DA-1, one directional antenna both day and night; DA-2, two directional antennae, one in daylight, the other at night; DA-N, single directional antenna used at night only. Wattage of some stations differs between day and night as shown.

| Station Location | Frequency | Power | Station Location | Frequency | Power |
|------------------------------------|-----------|-------------|--------------------------------|-----------|-------------|
| | kc. | watts | | kc. | watts |
| Trans-Canada Basic Network— | | | Dominion Basic Network— | | |
| *CBI Sydney..... | 1,140 | 5,000 | concl. | | |
| *CBH Halifax..... | 1,330 | 100 | CFCC Chatham..... | 630 | 1,000 DA |
| *CBA Sackville..... | 1,070 | 50,000 | CFPA Port Arthur..... | 1,230 | 250 |
| CHSJ Saint John..... | 1,150 | 5,000 DA-N | CJRL Kenora..... | 1,220 | 1,000 |
| CFNB Fredericton..... | 550 | 5,000 DA-N | CKRC Winnipeg..... | 630 | 5,000 DA-N |
| *CBM Montreal..... | 940 | 50,000 | CKX Brandon..... | 1,150 | 1,000 |
| *CBO Ottawa..... | 910 | 5,000 DA | CJGX Yorkton..... | 940 | 10,000 D |
| CKWS Kingston..... | 960 | 5,000 DA | | | 1,000 N |
| *CBL Toronto..... | 740 | 50,000 | CKBI Prince Albert..... | 900 | 10,000 DA-2 |
| CFCH North Bay..... | 600 | 1,000 DA | CFQC Saskatoon..... | 600 | 5,000 DA-N |
| CJKL Kirkland Lake..... | 560 | 5,000 DA | CHAB Moose Jaw..... | 800 | 5,000 DA |
| CKGB Timmins..... | 680 | 5,000 DA-N | CKRM Regina..... | 980 | 5,000 DA-N |
| CKSO Sudbury..... | 790 | 5,000 DA-N | CFRN Edmonton..... | 1,260 | 5,000 |
| *CBE Windsor..... | 1,550 | 10,000 DA | CFCN Calgary..... | 1,060 | 10,000 DA-N |
| CJJC Sault Ste. Marie..... | 1,490 | 250 | CHWK Chilliwack..... | 1,270 | 1,000 DA |
| CKPR Fort William..... | 580 | 1,000 | CJOR Vancouver..... | 600 | 5,000 DA |
| *CBW Winnipeg..... | 990 | 50,000 | CJVI Victoria..... | 900 | 5,000 DA-1 |
| *CBK Regina..... | 540 | 50,000 | | | |
| *CBX Edmonton..... | 1,010 | 50,000 | Dominion Supplementary— | | |
| *CBXA Edmonton..... | 740 | 250 | CHML Hamilton..... | 900 | 5,000 DA-N |
| CJOC Lethbridge..... | 1,220 | 10,000 D | CKTB St. Catharines..... | 620 | 1,000 DA |
| | | 5,000 DA-N | CFOR Orillia..... | 1,570 | 5,000 D |
| CFJC Kamloops..... | 910 | 1,000 | | | 1,000 N |
| CKOV Kelowna..... | 630 | 1,000 | CHNO Sudbury..... | 900 | 1,000 DA-N |
| CJAT Trail..... | 610 | 1,000 | CHAT Medicine Hat..... | 1,270 | 1,000 DA |
| *CBU Vancouver..... | 690 | 10,000 | CJIB Vernon..... | 940 | 1,000 DA |
| *CFPR Prince Rupert..... | 1,240 | 250 | CFOB Fort Frances..... | 800 | 1,000 D |
| | | | | | 500 N |
| Trans-Canada Supplementary— | | | CKCV Quebec..... | 1,280 | 1,000 DA-N |
| *CBN St. John's..... | 640 | 10,000 | CKSF Cornwall..... | 1,230 | 250 |
| *CBY Corner Brook..... | 790 | 1,000 | CJBQ Belleville..... | 800 | 1,000 DA-1 |
| *CBG Gander..... | 1,450 | 250 | CKCR Kitchener..... | 1,490 | 250 |
| *CBT Grand Falls..... | 990 | 1,000 | CJCS Stratford..... | 1,240 | 250 |
| CKBW Bridgewater..... | 1,000 | 1,000 DA-N | CKPC Brantford..... | 1,380 | 1,000 DA-N |
| CKMR Newcastle..... | 790 | 1,000 DA-1 | CKNX Wingham..... | 920 | 1,000 DA-N |
| CJQC Quebec..... | 1,340 | 250 | CFOS Owen Sound..... | 1,470 | 1,000 DA-N |
| CKOC Hamilton..... | 1,150 | 5,000 DA | CKLW Windsor..... | 800 | 50,000 DA |
| CHLO St. Thomas..... | 680 | 1,000 DA | CKRD Red Deer..... | 850 | 1,000 |
| CHOK Sarnia..... | 1,070 | 5,000 D | CKLC Kingston..... | 1,380 | 1,000 |
| | | 1,000 DA-N | CKOK Penticton..... | 800 | 1,000 D |
| CFAR Flin Flon..... | 590 | 1,000 | | | 500 N |
| CFGP Grande Prairie..... | 1,050 | 5,000 DA-1 | French Basic Network— | | |
| CKLN Nelson..... | 1,240 | 250 | *CBJ Chicoutimi..... | 1,580 | 10,000 DA |
| CKPG Prince George..... | 550 | 250 | *CBV Quebec..... | 980 | 5,000 |
| CJDC Dawson Creek..... | 1,350 | 1,000 | *CBF Montreal..... | 690 | 50,000 |
| CJCA Edmonton..... | 930 | 5,000 DA-N | *CBAF Moncton..... | 1,300 | 5,000 DA-1 |
| CKCK Regina..... | 620 | 5,000 DA-N | CHNC New Carlisle..... | 610 | 5,000 DA |
| CFAC Calgary..... | 960 | 5,000 DA-N | | | |
| CKEC New Glasgow..... | 1,230 | 250 | French Supplementary— | | |
| | | | CJEM Edmundston..... | 1,380 | 1,000 DA |
| Dominion Basic Network— | | | CJBR Rimouski..... | 900 | 10,000 DA-N |
| CJCB Sydney..... | 1,270 | 5,000 D | CHLT Sherbrooke..... | 900 | 1,000 DA-N |
| | | 1,000 N | CHGB Ste. Anne-de-la- | 1,350 | 1,000 D |
| CHNS Halifax..... | 930 | 5,000 DA-N | Pocatière..... | | 250 N |
| CJFX Antigonish..... | 580 | 5,000 DA | CKCH Hull..... | 970 | 5,000 DA-1 |
| CJLS Yarmouth..... | 1,340 | 250 | CJFP Rivière-du-Loup..... | 1,400 | 250 |
| CFCY Charlottetown..... | 630 | 5,000 DA-N | CKVD Val d'Or..... | 1,230 | 250 |
| CKCW Moncton..... | 1,220 | 10,000 DA-N | CHAD Amos..... | 1,340 | 250 |
| CFBC Saint John..... | 930 | 5,000 DA | CKRN Rouyn..... | 1,400 | 250 |
| CKNB Campbellton..... | 950 | 1,000 DA | CKLS La Sarre..... | 1,240 | 250 |
| CKTS Sherbrooke..... | 1,240 | 250 | CKLD Thetford Mines..... | 1,230 | 250 |
| CFCE Montreal..... | 600 | 5,000 DA | CFCL Timmins..... | 580 | 1,000 DA |
| CKOY Ottawa..... | 1,310 | 5,000 D | CKSB St. Boniface..... | 1,250 | 1,000 DA |
| | | 1,000 DA-N | CHFA Edmonton..... | 680 | 5,000 DA |
| CHOV Pembroke..... | 1,350 | 1,000 DA | CFNS Saskatoon..... | 1,170 | 1,000 DA-1 |
| CFJR Brockville..... | 1,450 | 250 | CFRG Gravelbourg..... | 710 | 5,000 D |
| CHEX Peterborough..... | 1,430 | 1,000 DA | CHNO Sudbury..... | 900 | 1,000 DA-N |
| *CJBC Toronto..... | 860 | 50,000 | CKBL Matane..... | 1,250 | 5,000 DA-1 |
| CFPL London..... | 980 | 5,000 DA | CKVM Ville Marie..... | 710 | 1,000 DA-N |
| | | | CKRB Ville St. Georges..... | 1,400 | 250 |

Television Broadcasting Facilities.—As at Mar. 31, 1957, there were 34 television broadcasting stations in operation on the English network (eight of which were CBC-owned) and three under construction. On the French network, six stations were in operation (two of which were CBC-owned) and one was under construction. These stations were located and powered as follows:—

3.—Broadcasting Stations of CBC Television Networks as at Mar. 31, 1957

NOTE.—The stations marked with an asterisk (*) are CBC-owned.

| Station Location | Chan- nel | Power | | Station Location | Chan- nel | Power | |
|-------------------------------|--------------|-------|-------|----------------------------------|--------------|-------|-------|
| | | Video | Audio | | | Video | Audio |
| | | kw. | kw. | | | kw. | kw. |
| English Network— | | | | English Network—concluded | | | |
| CJON-TV St. John's..... | 6 | 21 | 11 | CFRN-TV Edmonton..... | 3 | 180.3 | 90.43 |
| *CFLA Goose Bay..... | 8 | 0.348 | 0.174 | CHCT-TV Calgary..... | 2 | 100 | 50 |
| *CFSN Harmon Field..... | 8 | 0.490 | 0.245 | *CBUT Vancouver..... | 2 | 47.6 | 25.4 |
| CJCB-TV Sydney..... | 4 | 100 | 60 | CKNX-TV Wingham..... | 8 | 20 | 12 |
| *CBHT Halifax..... | 3 | 56.5 | 33.8 | CFCY-TV Charlottetown..... | 13 | 38.6 | 19.3 |
| CHSI-TV Saint John..... | 4 | 100 | 50 | CKGN-TV North Bay..... | 10 | 28.5 | 14.25 |
| CKCW-TV Moncton..... | 2 | 25 | 15 | CFLV-TV Timmins..... | 6 | 18.5 | 9.25 |
| CKML-TV Quebec..... | 5 | 5.6 | 2.8 | CJLH-TV Lethbridge..... | 7 | 102.8 | 57.5 |
| *CBMT Montreal..... | 6 | 43.8 | 26.2 | CHEK Victoria..... | 6 | 1.8 | 0.9 |
| *CBOT Ottawa..... | 4 | 50.1 | 26.7 | | | | |
| CHEX-TV Peterborough..... | 12 | 102 | 61.2 | Under Construction— | | | |
| CKWS-TV Kingston..... | 11 | 101 | 60.6 | CJOX-TV Argentinia..... | 10 | 0.190 | 0.097 |
| *CBLT Toronto..... | 9 | 99.5 | 53.5 | CHAT-TV Medicine Hat..... | 6 | 4.78 | 2.39 |
| CKVR-TV Barrie..... | 3 | 14 | 7 | CFR-TV Kamloops..... | 4 | 0.10 | 0.05 |
| CHCH-TV Hamilton..... | 11 | 100 | 60 | | | | |
| CKCO-TV Kitchener..... | 13 | 31.4 | 16.9 | French Network— | | | |
| CFPL-TV London..... | 10 | 325 | 195 | CJBR-TV Rimouski..... | 3 | 34.0 | 19.4 |
| CKLW-TV Windsor..... | 9 | 178 | 107 | CFCM-TV Quebec..... | 4 | 12.65 | 6.33 |
| CKSO-TV Sudbury..... | 5 | 1.74 | 0.87 | *CBFT Montreal..... | 2 | 100 | 50 |
| CFCJ-TV Sault Ste. Marie..... | 2 | 28 | 15 | *CBOFT Ottawa..... | 9 | 31 | 17 |
| *CBWT Port Arthur..... | 2 | 5.10 | 2.55 | CKRS-TV Jonquière..... | 12 | 20 | 10 |
| CKX-TV Winnipeg..... | 4 | 56.2 | 33.7 | CHLT-TV Sherbrooke..... | 7 | 170 | 100 |
| CKY-TV Brandon..... | 5 | 19.3 | 9.65 | | | | |
| CFQC-TV Saskatoon..... | 8 | 100 | 60 | Under Construction— | | | |
| CKCK-TV Regina..... | 2 | 100 | 53.5 | CKRN-TV Rouyn..... | 4 | 50 | 25 |

It was estimated that at the end of March 1957 more than 86 p.c. of all Canadians were within reach of the national television system. Microwave facilities linking television stations from coast to coast for instantaneous telecasting of programs are under construction and will extend from coast to coast by mid-1958.

When television broadcasting began in September 1952, 146,000 television sets were in use in Canada. One year later the number had tripled and by March 1957 more than 2,550,000 receivers were in use in Canadian homes.

Canadian Broadcasting Corporation Service.—The Corporation's Head Office is located at Ottawa and provides over-all direction for the English and French language television and radio services through the CBC's seven operations divisions: British Columbia; Prairies; Ontario and English networks; Quebec and French networks; Maritimes; Newfoundland; and the International Service. To give expression to varying interests across Canada, the CBC maintains offices and production facilities at St. John's, Nfld., Sydney and Halifax, N.S., Moncton, N.B., Chicoutimi, Quebec and Montreal, Que., Ottawa, Toronto and Windsor, Ont., Winnipeg, Man., Regina, Sask., Edmonton, Alta., and Vancouver and Prince Rupert, B.C.

Domestic Radio Program Service.—During the year ended Mar. 31, 1957, 82,329 programs representing 25,415 hours of broadcasting were presented over the CBC Trans-Canada, Dominion and French networks. Of the total broadcasting hours in 1954-55, 75 p.c. was scheduled on the Trans-Canada network; the Dominion network released 4.3 p.c. and the remainder was released on the French network.

The CBC originated and produced 92.5 p.c. of its network broadcasts. Of the remainder, 1 p.c. came from private stations and 6.5 p.c. were exchange programs from the United States and the British Broadcasting Corporation. An analysis of network programs by categories for 1956-57 shows that, as in previous years, a large proportion of CBC radio network time was devoted to music—an estimated 44 p.c. News and weather ranked next in order of broadcast time with 12 p.c. Table 4 presents an estimate of the hours of radio programs by category. The figures are based on programs on all three CBC radio networks, 'live', recorded, or recorded for later presentation. They do not include the 'delayed' presentation of programs that are transmitted at different times by different sections of the network to meet the convenience of listeners in the various time zones. However, they do include regional programming presented on sections of the network exclusively for listeners in the areas served by such regional breakdowns of the network. The classifications in this table are based on the predominant function of each program although many programs serve more than one interest at the same time.

4.—Classification of CBC Radio Programs, Year Ended Mar. 31, 1957

| Class of Program | Hours | Distribution of Hours | Class of Program | Hours | Distribution of Hours |
|----------------------------------|-------|-----------------------|---------------------------------|---------------|-----------------------|
| | No. | p.c. | | No. | p.c. |
| Music, light..... | 7,822 | 30.8 | School, youth educational..... | 540 | 2.1 |
| Music, serious..... | 3,506 | 13.8 | Political, controversial..... | 406 | 1.6 |
| News, weather..... | 2,997 | 11.8 | Miscellaneous information..... | 237 | 0.9 |
| Miscellaneous entertainment..... | 2,580 | 10.2 | Other countries..... | 236 | 0.9 |
| Drama..... | 1,797 | 7.0 | Social and human relations..... | 179 | 0.7 |
| Farm and fisheries..... | 1,285 | 5.1 | Science and nature..... | 42 | 0.2 |
| Canadian ideas and heritage..... | 1,171 | 4.7 | Other..... | 104 | 0.4 |
| Religious..... | 971 | 3.8 | | | |
| Home and hobby..... | 878 | 3.4 | | | |
| Sports..... | 664 | 2.6 | Totals..... | 25,415 | 100.0 |

Domestic Television Program Service.—During the year ended Mar. 31, 1957, the CBC English-language television network presented 2,511 hours of programming. Of this, 58 p.c. was produced by CBC, 38 p.c. was drawn from sources in the United States, 2 p.c. from non-CBC sources in Canada, and 2 p.c. from the United Kingdom and other countries. Of the 2,794 hours presented by the CBC French-language television network, 70 p.c. originated with the CBC, 3 p.c. with other Canadian sources, and 17 p.c. with sources in France. The remaining 10 p.c. was procured in the United States, the United Kingdom and other countries.

5.—Classification of CBC Television Programs, Year Ended Mar. 31, 1957

| Class of Program | Hours | Distribution of Hours | Class of Program | Hours | Distribution of Hours |
|-----------------------------------|-------|-----------------------|--------------------------------|--------------|-----------------------|
| | No. | p.c. | | No. | p.c. |
| Drama..... | 1,927 | 36.3 | Science, nature..... | 123 | 2.3 |
| Variety, other entertainment..... | 944 | 17.8 | School, youth educational..... | 104 | 2.0 |
| Sports..... | 609 | 11.5 | Political, controversial..... | 94 | 1.8 |
| News, weather..... | 314 | 6.0 | Home and hobby..... | 92 | 1.7 |
| Canadian ideas and heritage..... | 202 | 3.8 | Music, serious..... | 68 | 1.3 |
| Music, light..... | 178 | 3.3 | Farm and fisheries..... | 58 | 1.1 |
| Other countries..... | 165 | 3.1 | Other..... | 20 | 0.3 |
| Social and human relations..... | 138 | 2.6 | | | |
| Miscellaneous information..... | 136 | 2.6 | | | |
| Religion..... | 133 | 2.5 | Totals..... | 5,304 | 100.0 |

Radio and Television Talent.—The CBC is the main single outlet for Canadian talent in the fields of music, drama and other entertainment. In the year ended Mar. 31, 1957, a total of 14,514 free-lance artists contributed to the Corporation's programs. During the year, the CBC spent approximately \$11,000,000 for talent—\$3,500,000 for radio and \$7,500,000 for television. Of the total, \$2,400,000 was for scripts, performing rights, music and musical arrangements. The remainder was in the form of direct fees to musicians, singers, actors, and other performers. These figures cover 'outside' or non-staff talent and do not include CBC personnel in such categories as producers and directors, scenery, graphics and costume designers, and film editors and commentators.

CBC International Service (Shortwave).—The International Service, operated by the Canadian Broadcasting Corporation on behalf of the Government of Canada, is financed separately from CBC's national radio and television service through annual grants by Parliament. Headquarters and studios are in the Radio Canada Building at Montreal and the Service's two 50-kw. shortwave transmitters are in Sackville, N.B., 600 miles from Montreal.

The International Service was inaugurated on Feb. 25, 1945, and the first programs to Europe were broadcast mainly for Canadian Armed Force personnel. Later, the scope was broadened to give listeners in other lands a picture of life in Canada and to explain Canada's part in the United Nations and NATO. News and news commentary are the core of the program service and great emphasis is placed on the broadcasting of news bulletins to those who live behind the iron curtain. Shortwave broadcasts are now on the air some 92 hours a week in the following languages—English, French, German, Dutch, Italian, Spanish, Portuguese (for Brazil), Danish, Norwegian, Swedish, Czech, Slovak, Russian, Ukrainian, Polish and Hungarian. Programs are also prepared regularly on disc or tape and shipped to Austria, Greece and Finland for transmission by the radio facilities of those countries. The shortwave transmitters at Sackville are also used to broadcast news and other programs to people living in Canada's Far North beyond the signal of the domestic networks. Broadcasts beamed to Europe in the English and French languages are regularly relayed over Station CAE, the Canadian Army radio station in Europe. In addition to the regular shortwave programs, the International Service provides the Canadian Army station with broadcasts of special events from Canada.

In addition to its regular schedule of shortwave broadcasting, the International Service provides programs for use on the domestic stations and networks of countries all over the world. In the main, three types of programs are provided to external radio organizations: programs relayed by shortwave for immediate or almost-immediate rebroadcast; recorded broadcasts on tape or disc, usually for only one outlet; and transcriptions on processed disc for wide distribution. The third category—transcriptions—is made up of recorded music and spoken-word programs (talks, documentaries, etc.) in the English, French and Spanish languages. International Services sometimes exchange regular programs with other countries.

More than 300,000 letters have been received from listeners since the start of the service. The International Service replies in the language of the letter-writer and forwards printed information on a great number of subjects. Seven times yearly the International Service publishes an illustrated program schedule which is printed in the languages of the shortwave programs and contains information, times and frequencies of the International Service shortwave broadcasts. It goes to 180,000 individual listeners in all parts of the world.

Canadian Broadcasting Corporation Finances.—The operations for the year ended Mar. 31, 1957, resulted in an excess of expenditure over income of \$1,561,211 after providing \$1,969,754 for depreciation. The surplus of the Radio and Integrated Services was \$202,299 as compared to a deficit of \$1,763,510 for the Television Service.

The Corporation's income from all sources was \$10,346,563 higher than the previous year; contributing to this was an increase of \$2,438,200 in net revenue from commercial broadcasting activities of the Television Service. The increase in total revenue was offset by an advance in expenditures of \$10,549,153, attributed to the development of the national television service and to the general rise in costs experienced by all industries.

The cash and investment position as at Mar. 31, 1957, was \$4,829,022 lower than at Mar. 31, 1956. Working capital was \$17,993,620 at the later date as compared with \$22,518,050 at the earlier date. The decrease was partially accounted for by expenditures of \$552,885 for extensions and improvements to broadcasting facilities for the Radio and Integrated Services and \$4,041,261 for the Television Service.

There were no loans during the year from the Government of Canada. Payments on the principal of loans granted previously amounted to \$101,038 for the Radio and Integrated Services and \$36,975 for the Television Service.

Statutory payments to the Corporation representing the equivalent of the excise tax on the sale of radio and television receivers and associated parts amounted to \$18,923,029 compared to \$22,799,955 for the previous year. Parliament extended the grant previously authorized for the five years ended Mar. 31, 1956, to the Radio Broadcasting Service toward the anticipated operating deficit and capital expenditures. A grant for similar purposes was provided for the Television Service.

The International Service's net operating expenditures of \$1,566,087 for the year ended Mar. 31, 1957, are not considered as chargeable to the CBC because grants and payments from the Government of Canada are used to serve only listeners within Canada.

6.—Income and Expenditures of the CBC, Year Ended Mar. 31, 1957

| Item | Radio and Integrated Services | Television Service | Total |
|--|--|-----------------------|-------------------|
| | \$ | \$ | \$ |
| Net Income | 14,511,082 | 34,777,883 | 49,288,965 |
| Grants under Parliamentary Appropriations..... | 6,250,000 | 12,000,000 | 18,250,000 |
| Statutory grant under Sect. 14-4 of the Act..... | 6,336,840 | 12,586,189 | 18,923,029 |
| Commercial broadcasting..... | 1,338,302 | 9,841,638 | 11,179,940 |
| Broadcasting licence fees..... | 308,250 | 84,000 | 392,250 |
| Interest on investments..... | 78,063 | 227,477 | 305,540 |
| Profit on sale of bonds..... | 14,480 | 29,795 | 44,275 |
| Miscellaneous..... | 185,147 | 8,784 | 193,931 |
| Expenditure | 13,705,415 | 35,175,007 | 48,880,422 |
| Programs..... | 11,967,530 | 19,689,784 | 31,657,314 |
| Engineering..... | 3,536,654 | 5,915,249 | 9,451,903 |
| Network transmission services..... | 1,663,211 | 1,452,334 | 3,115,545 |
| Administration..... | 1,855,089 | — | 1,855,089 |
| Commercial division..... | 730,625 | — | 730,625 |
| Press and information..... | 920,470 | — | 920,470 |
| Interest on loans..... | 90,322 | 831,403 | 921,725 |
| Amortization of improvements to properties held under lease..... | 104,972 | 122,779 | 227,751 |
| Integrated services (shared)..... | -7,163,458 | 7,163,458 | — |
| Depreciation..... | 603,368 | 1,366,386 | 1,969,754 |
| Excess of Income over Expenditure | 202,299 | — | — |
| Excess of Expenditure over Income | — | 1,763,510 | 1,561,211 |

Privately Owned Stations.—As stated previously, privately owned broadcasting stations are subject to the Radio Act, the Canadian Broadcasting Act and Regulations made thereunder, and to the provisions of the Radio Regulations annexed to the International Telecommunication Convention and Regional Agreements in effect in Canada. Since Mar. 31, 1923, private commercial broadcasting station licences have been required by Government regulation and both sound and television broadcasting stations are now authorized by this class of licence.

Any application for a licence to establish a new private station or for an increase in power, change of channel, or change of location of any existing private station must be referred by the Minister of Transport to the Canadian Broadcasting Corporation; the Corporation after giving public notice thereof in the *Canada Gazette* will make such recommendations to the Minister of Transport as it may deem fit. The approval of the Governor in Council must be obtained before any licence for a new private station is issued. Private commercial broadcasting station licences are conditional upon the ownership or control of the stations, and the shares of capital stock of licensed companies in certain instances may not be transferred without the permission of the Minister of Transport having been first obtained upon the recommendation of the Canadian Broadcasting Corporation. Proof of performance statements showing public service, community service and light programming are filed annually with the Canadian Broadcasting Corporation. Organizational and financial statements are filed annually, on a confidential basis, with the Department of Transport.

The first sound broadcasting in Canada took place when a privately owned communications company in Montreal was authorized to transmit programs on an experimental basis during the latter part of 1918 and in the winter evenings of 1919 over its Station XWA. Under the first licensing regulations in the year ended Mar. 31, 1923, 34 licences were issued. By Mar. 31, 1957, the number had increased to 203, of which 169 were AM standard band stations, 26 were frequency modulated stations and eight were shortwave stations. Of the 169 standard band stations, two were operating with a power of 50,000 watts, ten with 10,000 watts, 50 with 5,000 watts, 63 with 1,000 watts, 42 with 250 watts and two with 100 watts.

A privately owned broadcasting station is required to pay to the Receiver General of Canada an annual licence fee based on the gross revenue for licence fee computation for the fiscal year of the station. Because the fiscal years of the privately owned stations end at different dates it is difficult to estimate the gross revenue of all stations for any one year. The Report of the Royal Commission on Broadcasting published in 1957 indicates that gross sales for 144 broadcasting stations amounted to approximately \$36,000,000 in 1955, all of which was obtained from commercial advertising.

The first privately owned television broadcasting station in Canada at Sudbury, Ont., was authorized to commence scheduled broadcasting on Oct. 20, 1953. By Mar. 31, 1957, 30 privately owned television stations were in operation (see Table 3).

International Agreements.—In 1937 a conference was held at Havana, Cuba, to review the broadcasting situation in the North American region and to develop a workable plan which would permit the growth of the broadcasting industry. The product resulting from the deliberations of that conference was the treaty known as the North American Regional Broadcasting Agreement which came into effect in 1941 and was extended by an instrument known as the *modus vivendi* or interim agreement signed at Washington in 1946. In 1949 and 1950, conferences were held at Montreal and Washington, and a new North American Regional Broadcasting Agreement was drafted in December 1950 which has been implemented as an administrative arrangement.

The Canadian-United States Television Agreement provides for the assignment and utilization of 82 television channels between 54 and 890 mc/s along the border between Canada and the United States of America, within an area of 250 miles on either side of the International Boundary. This Agreement provides that all station assignments within its scope shall be made in accordance with the Agreement and shall have an effective radiated power in any vertical or azimuthal plane not in excess of 100,000 watts for Channels 2 to 6, of 325,000 watts for Channels 7 to 13 and of 1,000,000 watts for Channels 14 to 83.

PART IV.—THE POST OFFICE

The Canada Post Office Department was created at the time of Confederation in 1867 by the Canada Post Office Act to superintend and manage the postal service of Canada under the direction of a Postmaster General. For almost a century before Confederation, postal services in the Canadian provinces had been controlled by the British Postmaster General and administered by his deputies. Under the French régime a courier service had been organized as early as 1703 between Quebec, Three Rivers and Montreal. In 1734 a post road was constructed over the same route and post houses, complete with post horses and vehicles, were established for the use of travellers. In 1851 the control of their post offices was assumed by the different provinces of British North America and at Confederation these systems merged to form the Canada Post Office.

Functions.—The basic tasks of the Canadian Postal Service are to receive, convey and deliver postal matter with security and despatch. In discharging these duties it maintains post offices and utilizes air, railway, land and water transportation facilities. Associated functions include the sale of stamps and other articles of postage, the registration of letters and other mail for despatch, the insuring of parcels, the accounting for COD articles, and the transaction of money order and Post Office Savings Bank business. Because of its widespread facilities, it has been found expedient for the Post Office to assist other government departments in the performance of certain tasks including the sale of unemployment insurance stamps, the collection of government annuity payments, the distribution of income tax forms and Civil Service employment application forms, and the displaying of government posters.

Post offices are established wherever the population warrants. Those in rural areas and small urban centres transact all of the functions of the city office. In larger urban areas postal stations and sub-post offices have full functions similar to the main post office, including a general delivery service, lock-box delivery and letter carrier delivery to the surrounding area.

At Mar. 31, 1957, there were 11,879 post offices in operation compared with 11,996 in 1956. Letter carrier delivery, performed in 140 urban centres, employs over 6,400 uniformed letter carriers. Postage paid in 1956-57 by means of postage stamps amounted to \$77,735,659 as compared with \$75,559,106 in 1956. Post office money orders, issued for any amount not exceeding \$100 and payable in almost any country of the world, are sold at more than 8,000 post offices. Orders payable in Canada only, for amounts not exceeding \$16 are sold at more than 3,000 additional post offices. Post Office Savings Banks operate in all parts of the country and, on Mar. 31, 1957, had total deposits of \$35,918,499.

Organization.—The Canada Post Office includes an Operating Service and Headquarters at Ottawa. The Operating Service is organized into five regions each under a Regional Director, who is the field representative of the Deputy Postmaster General. There are five Headquarters Branches: Administration, Operations, Transportation, Financial, and Personnel, each under a Director. Operating and secretarial features in the operating field affecting the post offices and local mail services in urban centres are taken care of by the local postmaster. District office functions relating to services in the district and all inspections and investigations are under District Directors of Postal Services in strategic centres across the country.

Postal service is provided in Canada from Newfoundland to the west coast of Vancouver Island and from Pelee Island, Ont. (the most southerly inhabited point of Canada) to settlements and missions far within the Arctic. Canada's airmail system provides several transcontinental flights daily and constitutes a great air artery from St. John's, Nfld., to Victoria, B.C., intersected by branch lines and connecting lines radiating to every quarter and linking up with the United States airmail system. Since July 1, 1948, all first class domestic mail up to and including one ounce in weight has been carried by air between one Canadian point and another, whenever delivery can thus be expedited.

On Apr. 1, 1954, this service was extended to first class items up to and including eight ounces in weight. Air stage service provides the sole means of communication with the outside for many areas in the hinterland. There were approximately 35,700 miles of airmail and air stage routes in Canada in 1957 as compared with 32,447 miles in 1956.

The principal means of mail transportation is the railway mail service that operates along about 30,260 miles of track and, in 1957, covered over 43,500,000 service miles. The railway mail service employed a staff of 1,190 mail clerks to prepare the mails for prompt delivery and dispatch while *en route* in the railway mail cars. Like its airmail service, Canada's railway mail service is one of the most extensive in the world.

The rural mail delivery organization provides direct postal facilities to residents in the rural sections of the country; approximately 5,399 rural mail routes were in operation in 1957, involving over 130,000 route-miles and serving 465,180 rural mail boxes. Rural mail routes are generally circular in pattern and average about 24 miles in length. Considerable progress has been made towards the development of mail service by means of group boxes—a service intended for the more densely populated rural areas and for suburban residents not within the area of letter carrier delivery service. About 3,848 side services were in operation in 1957 to transport mail between post offices, railway stations, steamer wharves and airports, and 2,145 stage services operated to convey mail to and from post offices not located on railway lines. Transportation of mail by motor vehicle on highways is being developed and over 270 such services are in operation. Many of these services have replaced or reduced conveyance by rail. A local exchange of mails between offices on the route is effected by way-mail wallet. In 1957 there were approximately 792 city mail services transporting mail to and from post offices, postal stations and sub-post offices, collecting mail from street letter-boxes and delivering parcel post. In all, about 12,500 land-mail service couriers are employed and travel in the neighbourhood of 50,000,000 miles annually. Land mail services are performed under a contract system, the contracts being awarded to the person submitting the lowest tender and competent to provide all the requisite equipment.

Coastal mail service to the more populous centres as well as to many isolated points is conducted by 17 contractors who operate as far north along the West Coast as Alaska and on the East Coast to the northern part of Labrador.

The increase in postal business is one of the impressive features of Canada's economic development during the past ten years. Gross revenue for the year ended Mar. 31, 1957, reached an all-time high.

Post Office Statistics.—Tables 1, 2 and 3 give the numbers of post offices in operation together with revenue and expenditure for the past few years.

1.—Post Offices in Operation by Province as at Mar. 31, 1954-57

| Province or Territory | 1954 | 1955 | 1956 | 1957 |
|----------------------------|---------------|---------------|---------------|---------------|
| | No. | No. | No. | No. |
| Newfoundland..... | 613 | 626 | 636 | 640 |
| Prince Edward Island..... | 106 | 105 | 105 | 105 |
| Nova Scotia..... | 1,179 | 1,148 | 1,124 | 1,117 |
| New Brunswick..... | 817 | 789 | 736 | 703 |
| Quebec..... | 2,507 | 2,487 | 2,463 | 2,435 |
| Ontario..... | 2,630 | 2,654 | 2,644 | 2,627 |
| Manitoba..... | 824 | 822 | 815 | 817 |
| Saskatchewan..... | 1,364 | 1,347 | 1,332 | 1,318 |
| Alberta..... | 1,152 | 1,156 | 1,141 | 1,124 |
| British Columbia..... | 963 | 955 | 947 | 940 |
| Yukon Territory..... | 15 | 16 | 16 | 16 |
| Northwest Territories..... | 32 | 33 | 37 | 37 |
| Canada..... | 12,202 | 12,138 | 11,996 | 11,879 |

2.—Revenue and Expenditure of the Post Office Department, Years Ended Mar. 31, 1948-57

NOTE.—Figures from 1868 will be found in the corresponding table of previous Year Books beginning with the 1911 edition. Figures for Newfoundland are included from 1950.

| Year | Gross Revenue | Net Revenue ¹ | Expenditure ² | Surplus (+) or Deficit (—) |
|-----------|---------------|--------------------------|--------------------------|----------------------------------|
| | \$ | \$ | \$ | \$ |
| 1948..... | 91,613,618 | 77,770,967 | 67,943,476 | +9,827,491 |
| 1949..... | 95,957,469 | 80,618,401 | 77,642,621 | +2,975,780 |
| 1950..... | 101,277,435 | 84,528,655 | 82,639,741 | +1,888,914 |
| 1951..... | 105,545,456 | 90,454,678 | 91,781,466 | —1,326,788 |
| 1952..... | 122,266,675 | 104,622,208 | 97,973,263 | +6,648,945 |
| 1953..... | 129,388,365 | 112,024,245 | 105,553,191 | +6,471,054 |
| 1954..... | 129,889,325 | 111,107,484 | 113,581,752 | —2,474,268 |
| 1955..... | 151,717,273 | 131,315,049 | 123,611,055 | +7,703,994 |
| 1956..... | 158,568,356 | 137,696,621 | 127,421,739 | +10,274,882 |
| 1957..... | 167,879,869 | 145,823,785 | 139,992,921 | +5,830,863 |

¹ Gross revenue less commissions and allowances to postmasters, and other smaller items.
rental of service staff and staff post offices.

² Excludes

The gross revenue receipts shown in Table 2 are received mainly from postage, either in the form of postage stamps and stamped stationery, or postage meter and postage register machine impressions. Some postage is also paid in cash without stamps, stamped stationery or meter and register impressions. The gross value of the postage stamps and stamped stationery sold during each of the latest five fiscal years was: \$67,182,548 in 1952-53, \$64,546,067 in 1953-54, \$74,583,720 in 1954-55, \$75,559,106 in 1955-56 and \$77,735,659 in 1956-57. Receipts from postage meter or postage register impressions and postage paid in cash by other means were as follows: \$52,733,682 in 1952-53, \$55,398,788 in 1953-54, \$65,516,441 in 1954-55, \$70,696,501 in 1955-56 and \$78,041,479 in 1956-57.

3.—Gross Postal Revenue of Offices collecting upwards of \$10,000, Years Ended Mar. 31, 1956 and 1957

NOTE.—Money order commissions are not included in gross postal revenue. Provincial totals of postal revenue include post offices not separately listed.

| Province and Post Office | 1956 | 1957 | Province and Post Office | 1956 | 1957 |
|----------------------------------|------------------|------------------|--------------------------|------------------|------------------|
| | \$ | \$ | | \$ | \$ |
| Newfoundland..... | 1,506,873 | 1,578,986 | Nova Scotia..... | 4,685,219 | 4,883,169 |
| Botwood..... | 12,877 | 12,664 | Amherst..... | 92,088 | 96,172 |
| Buchans..... | 10,371 | 10,179 | Annapolis Royal..... | 15,612 | 16,612 |
| Carbonear..... | ¹ | 10,746 | Antigonish..... | 55,925 | 63,841 |
| Chamel..... | 11,171 | 10,946 | Baddeck..... | 10,722 | 11,479 |
| Corner Brook..... | 102,531 | 106,675 | Bedford..... | 15,028 | 15,395 |
| Deer Lake..... | 10,858 | 11,293 | Berwick..... | 13,911 | 14,281 |
| Gander..... | 43,592 | 44,442 | Bridgetown..... | 18,149 | 18,825 |
| Goose Airport..... | 28,112 | 31,848 | Bridgewater..... | 55,187 | 59,756 |
| Goose Airport Sub-Office A..... | 11,719 | 13,441 | Chester..... | 12,121 | 12,270 |
| Grand Falls..... | 31,328 | 36,699 | Cornwallis..... | 16,724 | 15,287 |
| Harmon Field..... | 28,610 | 28,165 | Digby..... | 31,533 | 34,896 |
| Lewisporte..... | 12,236 | 13,197 | Glace Bay..... | 70,664 | 69,033 |
| St. John's..... | 708,511 | 737,569 | Halifax..... | 2,300,829 | 2,438,021 |
| Stephenville..... | 12,131 | 15,082 | Hantsport..... | 11,444 | 11,445 |
| Wabana..... | 16,321 | 15,834 | Inverness..... | 10,218 | 11,725 |
| Windsor..... | 11,292 | 12,634 | Kentville..... | 86,114 | 88,384 |
| | | | Kingston..... | 11,436 | 11,263 |
| | | | Liverpool..... | 35,408 | 41,717 |
| Prince Edward Island..... | 457,139 | 465,088 | Lunenburg..... | 28,132 | 29,309 |
| Charlottetown..... | 237,159 | 244,398 | Mahone Bay..... | 11,898 | 12,437 |
| Montague..... | 12,842 | 12,826 | Middleton..... | 26,835 | 28,413 |
| Souris East..... | ¹ | 10,164 | New Glasgow..... | 107,987 | 111,518 |
| Summerside..... | 66,896 | 67,701 | New Waterford..... | 27,234 | 26,896 |

¹ Less than \$10,000.

3.—Gross Postal Revenue of Offices collecting upwards of \$10,000, Years Ended Mar. 31, 1956 and 1957—continued

| Province and Post Office | 1956 | 1957 | Province and Post Office | 1956 | 1957 |
|------------------------------|-------------------|-------------------|--------------------------------|------------|------------|
| | \$ | \$ | | \$ | \$ |
| Nova Scotia—concluded | | | Quebec—continued | | |
| North Sydney..... | 42,780 | 44,354 | Cap Chat..... | 10,232 | 10,279 |
| Oxford..... | 10,356 | 10,384 | Cap de la Madeleine..... | 118,249 | 118,198 |
| Parrsboro..... | 14,270 | 13,353 | Causapsal..... | 1 | 17,110 |
| Pictou..... | 28,785 | 31,191 | Chambly..... | 14,848 | 15,119 |
| RCAF Station Greenwood.. | 12,112 | 11,809 | Chandler..... | 24,777 | 26,715 |
| Shearwater..... | 1 | 10,442 | Charny..... | 10,949 | 11,046 |
| Shelburne..... | 20,713 | 22,503 | Chibougamau..... | 11,971 | 22,203 |
| Shubenacadie..... | 10,805 | 12,629 | Chicoutimi..... | 207,111 | 214,597 |
| Springhill..... | 27,767 | 27,998 | Coaticook..... | 30,595 | 30,409 |
| Stellarton..... | 27,828 | 27,969 | Cowansville..... | 43,049 | 38,879 |
| Sydney..... | 276,064 | 277,704 | Danville..... | 14,548 | 15,082 |
| Sydney Mines..... | 22,545 | 23,057 | Dolbeau..... | 30,273 | 32,879 |
| Tatamagouche..... | 10,111 | 10,710 | Donnacona..... | 15,828 | 17,559 |
| Trenton..... | 10,359 | 11,202 | Dorion-Vaudreuil..... | 19,605 | 20,890 |
| Truro..... | 170,659 | 176,513 | Dorval Station..... | 13,047 | 13,489 |
| Westville..... | 12,474 | 13,168 | Drummondville..... | 171,740 | 175,553 |
| Windsor..... | 41,324 | 43,126 | East Angus..... | 15,134 | 14,592 |
| Wolfville..... | 32,625 | 32,311 | Farnham..... | 33,658 | 33,685 |
| Yarmouth..... | 89,173 | 96,258 | Forestville..... | 13,326 | 14,933 |
| | | | Gardenvale..... | 203,506 | 258,546 |
| New Brunswick | 3,820,680 | 3,907,335 | Gaspé..... | 30,463 | 34,452 |
| Bathurst..... | 64,401 | 68,903 | Gatineau..... | 29,744 | 26,464 |
| Blacks Harbour..... | 1 | 10,478 | Granby..... | 185,541 | 196,167 |
| Campbellton..... | 72,237 | 73,872 | Grand Mère..... | 61,998 | 74,703 |
| Chatham..... | 35,396 | 36,203 | Hudson..... | 10,241 | 11,204 |
| Chipman..... | 11,073 | 10,776 | Hull..... | 177,448 | 192,232 |
| Dalhousie..... | 28,592 | 30,075 | Huntingdon..... | 23,223 | 24,001 |
| Dorchester..... | 10,724 | 1 | Joliette..... | 104,825 | 108,571 |
| Edmundston..... | 62,475 | 63,647 | Jonquière-Kenogami..... | 89,105 | 94,970 |
| Fredericton..... | 369,107 | 384,920 | Knowlton..... | 11,622 | 14,179 |
| Grand Falls..... | 24,469 | 26,072 | Labrieville..... | 25,002 | 21,434 |
| Hartland..... | 12,574 | 12,018 | Lachute..... | 35,111 | 37,599 |
| Harvey Station..... | 10,392 | 10,083 | Lachute Mills..... | 12,939 | 13,707 |
| Minto..... | 10,047 | 12,156 | Lac Mégantic..... | 31,961 | 30,201 |
| Moncton..... | 1,338,740 | 1,376,937 | Lacolle..... | 1 | 15,692 |
| Newcastle..... | 45,232 | 54,011 | La Malbaie..... | 22,624 | 19,023 |
| Perth..... | 10,848 | 10,942 | La Prairie..... | 15,445 | 19,210 |
| Plaster Rock..... | 11,358 | 11,471 | La Sarre..... | 32,376 | 33,533 |
| Saint John..... | 828,460 | 846,035 | L'Assomption..... | 15,528 | 16,398 |
| St. Andrews..... | 21,191 | 20,362 | La Tuque..... | 49,925 | 53,520 |
| St. George..... | 13,643 | 11,692 | Lennoxville..... | 31,532 | 35,810 |
| St. Stephen..... | 40,952 | 42,153 | L Epiphanie..... | 10,030 | 1 |
| Sackville..... | 55,606 | 54,678 | Lévis..... | 171,831 | 186,486 |
| Shediac..... | 14,606 | 14,791 | L'Isletville..... | 10,993 | 10,981 |
| Sussex..... | 37,491 | 38,011 | Loretteville..... | 19,979 | 21,908 |
| Tracadie..... | 1 | 11,192 | Louiseville..... | 22,362 | 22,454 |
| Woodstock..... | 51,429 | 53,821 | MacDonald College..... | 10,334 | 10,162 |
| | | | Magog..... | 56,011 | 60,997 |
| Quebec | 34,374,436 | 36,593,237 | Malartic..... | 25,518 | 25,672 |
| Acton Vale..... | 14,389 | 16,382 | Maniwaki..... | 28,967 | 30,583 |
| Amos..... | 50,268 | 49,804 | Marieville..... | 17,084 | 16,929 |
| Amqui..... | 23,971 | 24,937 | Matane..... | 50,666 | 56,594 |
| Arthabaska..... | 11,781 | 11,522 | Metabetchouan..... | 11,642 | 11,978 |
| Arvida..... | 56,585 | 61,282 | Mont Joli..... | 65,750 | 80,915 |
| Asbestos..... | 40,198 | 40,565 | Mont Laurier..... | 34,462 | 38,132 |
| Aylmer East..... | 12,077 | 12,666 | Montmagny..... | 53,275 | 55,022 |
| Bagotville..... | 16,228 | 15,714 | Montreal..... | 21,539,878 | 22,840,751 |
| Baie Comeau..... | 32,080 | 40,434 | Neuville..... | 26,137 | 24,419 |
| Baie St. Paul..... | 13,247 | 13,182 | New Carlisle..... | 19,038 | 19,300 |
| Basilique Ste. Anne..... | 54,648 | 49,423 | Nicolet..... | 43,769 | 43,285 |
| Beauceville East..... | 18,487 | 20,949 | Noranda..... | 62,960 | 66,005 |
| Beauharnois..... | 35,183 | 40,467 | Normandin..... | 10,184 | 10,131 |
| Bedford..... | 22,656 | 23,724 | Paspébiac..... | 1 | 10,087 |
| Beebe..... | 10,345 | 1 | Plessisville..... | 22,744 | 25,719 |
| Berthierville..... | 19,172 | 19,451 | Plessisville Station..... | 13,357 | 14,128 |
| Bourlamaque..... | 13,842 | 14,913 | Port Alfred..... | 18,621 | 18,175 |
| Bromptonville..... | 10,156 | 1 | Princeville..... | 14,959 | 15,941 |
| Brownsburg..... | 11,959 | 12,741 | Quebec..... | 3,359,652 | 3,510,225 |
| Buckingham..... | 27,307 | 28,387 | Rawdon..... | 15,450 | 12,947 |
| Cabano..... | 12,644 | 12,528 | RCAF Station (St. Hubert)..... | 24,832 | 27,963 |
| | | | RCAF Station (St. Jean)..... | 10,197 | 16,598 |
| | | | Richmond..... | 25,332 | 24,668 |

1 Less than \$10,000.

**3.—Gross Postal Revenue of Offices collecting upwards of \$10,000, Years Ended
Mar. 31, 1956 and 1957—continued**

| Province and Post Office | 1956 | 1957 | Province and Post Office | 1956 | 1957 |
|---------------------------------|-------------------|-------------------|-------------------------------|---------|---------|
| | \$ | \$ | | \$ | \$ |
| Quebec—concluded | | | Ontario—continued | | |
| Rigaud..... | 11,353 | 10,736 | Aylmer West..... | 39,619 | 42,372 |
| Rimouski..... | 155,067 | 175,716 | Bancroft..... | 23,976 | 30,787 |
| Rivière-du-Loup..... | 71,871 | 70,735 | Barrie..... | 179,265 | 188,921 |
| Roberval..... | 38,015 | 38,947 | Barrys Bay..... | 10,412 | 1 |
| Rock Island..... | 29,928 | 33,220 | Bartonville..... | 11,887 | 13,767 |
| Rouyn..... | 79,097 | 89,304 | Batawa..... | 20,332 | 20,306 |
| Ste. Agathe-des-Monts..... | 41,608 | 41,424 | Beamsville..... | 23,736 | 25,701 |
| Ste. Anne-de-Beaupré..... | 21,052 | 18,287 | Beaverton..... | 12,941 | 12,168 |
| Ste. Anne-de-Bellevue..... | 24,737 | 25,192 | Belle River..... | 1 | 10,288 |
| Ste. Anne-de-la-Pocatière..... | 21,294 | 22,031 | Belleville..... | 296,682 | 306,655 |
| Ste. Anne-des-Monts..... | 11,033 | 11,732 | Billings Bridge (Ottawa)..... | 22,058 | 30,361 |
| St. Eustache..... | 18,108 | 20,210 | Blenheim..... | 31,862 | 31,785 |
| St. Eustache-sur-le-Lac..... | 11,245 | 20,110 | Blind River..... | 29,569 | 32,783 |
| St. Félicien..... | 21,735 | 24,635 | Bolton..... | 11,684 | 12,556 |
| St. Gabriel-de-Brandon..... | 13,268 | 13,068 | Bowmanville..... | 50,085 | 50,627 |
| Ste. Geneviève-de- | | | Bracebridge..... | 39,362 | 40,787 |
| Pierrefonds..... | 11,262 | 13,172 | Bradford..... | 21,947 | 21,195 |
| St. Georges-Ouest..... | 11,266 | 12,111 | Brampton..... | 149,151 | 193,446 |
| St. Hyacinthe..... | 171,096 | 179,645 | Brantford..... | 516,053 | 550,176 |
| St. Jean..... | 177,822 | 181,052 | Brighton..... | 19,656 | 19,388 |
| St. Jean-Port-Joli..... | 12,283 | 12,580 | Brockville..... | 173,247 | 187,951 |
| St. Jérôme..... | 98,582 | 103,963 | Bronte..... | 10,993 | 11,504 |
| St. Joseph-de-Beauce..... | 15,783 | 15,906 | Burks Falls..... | 11,505 | 11,247 |
| St. Jovite..... | 12,750 | 13,626 | Burlington..... | 122,178 | 160,363 |
| Ste. Marie-Beauce..... | 21,834 | 23,174 | Byron..... | 15,537 | 17,852 |
| St. Pascal..... | 13,900 | 14,053 | Caledonia..... | 15,491 | 16,117 |
| St. Raymond..... | 14,803 | 15,099 | Campbellford..... | 28,329 | 27,847 |
| St. Rémi..... | 1 | 11,272 | Camp Borden..... | 30,178 | 30,506 |
| Ste. Rose..... | 18,681 | 20,243 | Capreol..... | 11,377 | 11,951 |
| Ste. Thérèse-de-Blainville..... | 42,708 | 47,415 | Cardinal..... | 16,429 | 17,753 |
| St. Tite..... | 13,047 | 13,806 | Carleton Place..... | 33,531 | 34,196 |
| Sayabec..... | 10,002 | 10,032 | Chalk River..... | 19,263 | 18,502 |
| Senneterre..... | 15,980 | 16,671 | Chapleau..... | 27,430 | 27,572 |
| Seven Islands..... | 56,031 | 71,924 | Chatham..... | 300,701 | 312,063 |
| Shawinigan Falls..... | 142,706 | 149,168 | Chelmsford..... | 11,314 | 13,231 |
| Shawville..... | 14,418 | 15,780 | Chesley..... | 14,835 | 14,466 |
| Sherbrooke..... | 524,357 | 548,540 | Chesterville..... | 11,372 | 11,308 |
| Sorel..... | 84,982 | 91,313 | Chippawa..... | 12,426 | 12,900 |
| Station St. Victor..... | 1 | 17,102 | City View..... | 11,672 | 16,610 |
| Sutton..... | 11,884 | 11,549 | Clarkson..... | 16,081 | 25,047 |
| Terrebonne..... | 15,095 | 16,817 | Clinton..... | 29,101 | 30,392 |
| Thetford Mines..... | 103,751 | 110,285 | Cobalt..... | 17,857 | 17,050 |
| Three Rivers..... | 376,635 | 402,173 | Cobourg..... | 95,411 | 97,029 |
| Timiskaming Station..... | 16,409 | 16,614 | Cochrane..... | 35,861 | 38,118 |
| Trois Pistoles..... | 20,273 | 21,032 | Colborne..... | 11,860 | 11,430 |
| Val d'Or..... | 73,418 | 90,673 | Collingwood..... | 49,781 | 54,506 |
| Valleyfield..... | 91,380 | 106,371 | Cooksville..... | 48,632 | 48,794 |
| Victoriaville..... | 95,454 | 104,798 | Copper Cliff..... | 32,661 | 29,608 |
| Ville-d'Alma..... | 45,834 | 49,214 | Cornwall..... | 228,231 | 250,318 |
| Ville-Jacques Cartier..... | 1 | 257,877 | Corunna..... | 10,663 | 13,189 |
| Ville-Marie..... | 12,458 | 12,825 | Deep River..... | 20,922 | 21,242 |
| Ville St. Georges..... | 33,926 | 35,114 | Delhi..... | 33,753 | 34,624 |
| Warwick..... | 12,943 | 13,299 | Don Mills..... | 66,728 | 142,013 |
| Waterloo..... | 30,204 | 30,391 | Downsview..... | 125,875 | 185,802 |
| Windsor..... | 15,926 | 16,935 | Dresden..... | 18,014 | 18,200 |
| | | | Dryden..... | 43,266 | 45,671 |
| | | | Dundas..... | 67,633 | 77,202 |
| | | | Dunnville..... | 52,843 | 54,062 |
| | | | Durham..... | 17,595 | 15,870 |
| | | | Eganville..... | 14,974 | 14,902 |
| | | | Elliot Lake..... | 20,609 | 20,609 |
| | | | Elmira..... | 25,529 | 26,868 |
| | | | Elora..... | 10,667 | 1 |
| | | | Englehart..... | 13,174 | 13,849 |
| | | | Espanola..... | 23,756 | 23,598 |
| | | | Essex..... | 31,299 | 31,744 |
| | | | Exeter..... | 23,801 | 25,985 |
| | | | Fenelon Falls..... | 14,863 | 14,796 |
| | | | Fergus..... | 43,335 | 42,662 |
| | | | Ferris..... | 12,467 | 12,802 |
| | | | Fonthill..... | 12,193 | 13,417 |
| | | | Forest..... | 19,196 | 19,351 |
| Ontario..... | 61,190,937 | 65,807,534 | | | |
| Acton..... | 26,641 | 28,763 | | | |
| Agincourt..... | 29,311 | 33,488 | | | |
| Ajax..... | 46,715 | 51,623 | | | |
| Aldershot..... | 14,893 | 1 | | | |
| Alexandria..... | 17,885 | 18,290 | | | |
| Alliston..... | 20,214 | 22,406 | | | |
| Almonte..... | 17,955 | 18,173 | | | |
| Amherstburg..... | 34,168 | 36,263 | | | |
| Ancaster..... | 19,899 | 23,103 | | | |
| Ansonville..... | 12,365 | 12,553 | | | |
| Arnprior..... | 52,024 | 65,664 | | | |
| Arthur..... | 1 | 10,032 | | | |
| Atikokan..... | 30,654 | 34,754 | | | |
| Aurora..... | 43,487 | 44,367 | | | |

¹ Less than \$10,000.

² Included in Montreal.

³ Included in Burlington.

Opened Feb. 14, 1956.

**3.—Gross Postal Revenue of Offices collecting upwards of \$10,000, Years Ended
Mar. 31, 1956 and 1957—continued**

| Province and Post Office | 1956 | 1957 | Province and Post Office | 1956 | 1957 |
|--------------------------|-----------|-----------|--|-----------|-----------|
| \$ | \$ | \$ | \$ | \$ | \$ |
| Ontario—continued | | | Ontario—continued | | |
| Fort Erie..... | 109,761 | 113,040 | Norwich..... | 15,378 | 15,639 |
| Fort Frances..... | 64,127 | 67,208 | Oakville..... | 210,574 | 241,778 |
| Fort William..... | 353,679 | 374,345 | Orangeville..... | 36,441 | 39,430 |
| Galt..... | 235,450 | 247,974 | Orillia..... | 145,314 | 152,597 |
| Gananoque..... | 47,623 | 48,240 | Oshawa..... | 629,555 | 706,381 |
| Georgetown..... | 80,824 | 85,077 | Ottawa..... | 3,229,071 | 3,351,014 |
| Geraldton..... | 24,146 | 23,944 | Owen Sound..... | 200,309 | 199,021 |
| Glencoe..... | 11,448 | 11,342 | Palmerston..... | 12,909 | 11,240 |
| Goderich..... | 52,027 | 50,806 | Paris..... | 55,519 | 62,965 |
| Gore Bay..... | 12,277 | 12,203 | Park Hill..... | 10,845 | 10,804 |
| Gravenhurst..... | 33,835 | 34,107 | Parry Sound..... | 52,382 | 55,938 |
| Grimsby..... | 40,637 | 42,884 | Pembroke..... | 130,868 | 133,121 |
| Guelph..... | 382,989 | 388,665 | Penetanguishene..... | 22,151 | 22,865 |
| Hagersville..... | 21,266 | 21,708 | Perth..... | 66,718 | 66,044 |
| Haileybury..... | 24,112 | 24,607 | Petawawa Camp..... | 20,240 | 19,205 |
| Haliburton..... | 16,262 | 16,708 | Peterborough..... | 430,932 | 474,648 |
| Hamilton..... | 2,561,585 | 2,826,647 | Petrolia..... | 22,992 | 26,102 |
| Hanover..... | 34,841 | 36,699 | Pickering..... | 15,300 | 15,961 |
| Harriston..... | 15,009 | 13,448 | Pictou..... | 62,884 | 63,272 |
| Harrow..... | 20,939 | 20,946 | Point Edward..... | 14,610 | 15,246 |
| Hawkesbury..... | 34,693 | 36,238 | Port Arthur..... | 306,977 | 328,554 |
| Hearst..... | 23,418 | 24,909 | Port Burwell..... | 12,502 | 14,565 |
| Hespeler..... | 29,603 | 30,168 | Port Colborne..... | 90,530 | 96,197 |
| Highland Creek..... | 16,389 | 17,678 | Port Credit..... | 147,009 | 172,400 |
| Hornepayne..... | 1 | 10,089 | Port Dalhousie..... | 19,308 | 19,913 |
| Huntsville..... | 55,131 | 56,539 | Port Dover..... | 21,036 | 22,201 |
| Ingersoll..... | 56,119 | 60,038 | Port Elgin..... | 15,726 | 16,062 |
| Iroquois..... | 12,444 | 13,284 | Port Hope..... | 75,791 | 78,141 |
| Iroquois Falls..... | 13,978 | 13,775 | Port Perry..... | 15,681 | 15,779 |
| Jamestown..... | 15,407 | 16,770 | Powassan..... | 10,767 | 10,793 |
| Kapuskasing..... | 46,955 | 51,079 | Prescott..... | 45,677 | 49,755 |
| Kemptville..... | 19,578 | 20,406 | Preston..... | 88,620 | 101,197 |
| Kenora..... | 98,783 | 106,325 | Rainy River..... | 10,563 | 10,264 |
| Kincardine..... | 24,573 | 25,258 | RCAF Station, Borden..... | 13,520 | 14,109 |
| Kingston..... | 502,284 | 519,243 | RCAF Station, Centralia..... | 12,061 | 12,717 |
| Kingsville..... | 31,280 | 33,150 | RCAF Station, Clinton..... | 13,623 | 14,118 |
| Kirkland Lake..... | 107,501 | 113,047 | RCAF Station, Rockcliffe, Ottawa..... | 46,103 | 40,625 |
| Kitchener..... | 656,714 | 693,939 | RCAF Station, Trenton..... | 39,372 | 39,254 |
| Lakefield..... | 16,838 | 16,698 | Red Lake..... | 14,203 | 14,213 |
| Lambeth..... | 10,142 | 11,155 | Renfrew..... | 69,557 | 68,391 |
| Leamington..... | 99,401 | 108,781 | Rexdale..... | 20,089 | 46,671 |
| Levack..... | 12,164 | 12,710 | Richmond Hill..... | 35,868 | 46,321 |
| Lindsay..... | 106,670 | 110,227 | Ridgetown..... | 22,278 | 23,474 |
| Listowel..... | 30,026 | 30,170 | Ridgeway..... | 15,480 | 16,412 |
| Little Current..... | 16,456 | 16,632 | Rodney..... | 10,542 | 10,721 |
| London..... | 1,947,976 | 2,108,976 | St. Catharines..... | 578,926 | 616,528 |
| Lorne Park..... | 11,110 | 11,314 | St. Mary's..... | 37,621 | 37,238 |
| Lucknow..... | 10,886 | 10,643 | St. Thomas..... | 208,764 | 219,280 |
| Madoc..... | 14,035 | 14,170 | Sarnia..... | 346,436 | 368,512 |
| Malton..... | 34,407 | 37,515 | Sault Ste. Marie..... | 273,417 | 303,977 |
| Maple..... | 15,056 | 19,010 | Scarborough..... | 134,648 | 235,443 |
| Marathon..... | 17,418 | 17,177 | Scarborough Village..... | 1 | 11,147 |
| Markdale..... | 10,957 | 11,602 | Schreiber..... | 11,887 | 12,201 |
| Markham..... | 18,308 | 20,758 | Schumacher..... | 16,785 | 16,726 |
| Marmora..... | 10,957 | 10,899 | Seaforth..... | 22,495 | 22,148 |
| Matheson..... | 11,912 | 12,468 | Shelburne..... | 13,381 | 13,600 |
| Mattawa..... | 14,093 | 14,205 | Simcoe..... | 107,210 | 113,648 |
| Meadford..... | 28,733 | 29,302 | Sioux Lookout..... | 25,318 | 26,208 |
| Midland..... | 63,963 | 65,712 | Smith's Falls..... | 74,210 | 76,514 |
| Milton West..... | 41,986 | 46,265 | Smooth Rock Falls..... | 12,550 | 12,690 |
| Minden..... | 12,635 | 13,541 | Southampton..... | 13,333 | 13,466 |
| Mitchell..... | 14,828 | 13,907 | South Porcupine..... | 24,189 | 24,142 |
| Morrisburg..... | 21,027 | 21,614 | Sprague..... | 1 | 14,204 |
| Mount Forest..... | 20,766 | 22,804 | Stayner..... | 14,802 | 14,830 |
| Napanee..... | 45,609 | 45,813 | Stirling..... | 10,760 | 11,272 |
| New Hamburg..... | 16,484 | 19,401 | Stoney Creek..... | 32,625 | 38,327 |
| New Liskeard..... | 82,318 | 83,554 | Stouffville..... | 21,205 | 22,247 |
| Newmarket..... | 65,827 | 70,766 | Stratford..... | 220,785 | 241,278 |
| Niagara Falls..... | 488,298 | 504,996 | Strathroy..... | 42,892 | 43,960 |
| Niagara-on-the-Lake..... | 36,369 | 21,553 | Streetsville..... | 25,237 | 29,607 |
| Nipigon..... | 14,238 | 15,222 | Sturgeon Falls..... | 25,662 | 26,565 |
| North Bay..... | 255,767 | 281,644 | | | |

¹ Less than \$10,000.

**3.—Gross Postal Revenue of Offices collecting upwards of \$10,000, Years Ended
Mar. 31, 1956 and 1957—continued**

| Province and Post Office | 1956 | 1957 | Province and Post Office | 1956 | 1957 |
|--------------------------|------------------|------------------|---------------------------|------------------|------------------|
| | \$ | \$ | | \$ | \$ |
| Ontario—concluded | | | Manitoba—concluded | | |
| Sudbury..... | 473,657 | 528,715 | Virden..... | 36,209 | 35,146 |
| Sundridge..... | ¹ | 10,134 | Wawanesa..... | 10,283 | 13,246 |
| Sutton West..... | 12,365 | 12,565 | Winkler..... | 12,974 | 13,354 |
| Tecumseh..... | 15,523 | 17,169 | Winnipeg..... | 7,490,246 | 7,826,915 |
| Terrace Bay..... | 11,476 | 11,187 | | | |
| Thamesville..... | 12,615 | 12,781 | Saskatchewan | 6,791,238 | 7,106,478 |
| Thessalon..... | 14,058 | 13,715 | Assiniboia..... | 25,325 | 26,704 |
| Thornhill..... | 16,976 | 18,748 | Biggar..... | 18,436 | 19,759 |
| Thorold..... | 83,490 | 89,459 | Broadview..... | 11,171 | 10,728 |
| Tilbury..... | 23,040 | 22,470 | Canora..... | 18,516 | 18,335 |
| Tillsonburg..... | 65,213 | 71,566 | Carlyle..... | 10,425 | 10,896 |
| Timmins..... | 162,275 | 169,838 | Carnduff..... | ¹ | 10,059 |
| Toronto..... | 31,754,078 | 34,320,436 | Davidson..... | 10,667 | 10,802 |
| Trenton..... | 91,002 | 99,351 | Estevan..... | 47,780 | 66,190 |
| Tweed..... | 20,403 | 17,981 | Eston..... | 13,127 | 13,935 |
| Uxbridge..... | 18,520 | 19,146 | Foam Lake..... | 11,365 | 11,491 |
| Vankleek Hill..... | 10,374 | ¹ | Fort San..... | 12,977 | 12,830 |
| Virginiatown..... | ¹ | 10,975 | Gravelbourg..... | 13,920 | 15,142 |
| Walkerton..... | 35,913 | 36,976 | Grenfell..... | 10,805 | 11,136 |
| Wallaceburg..... | 69,026 | 75,219 | Gull Lake..... | 10,952 | 10,393 |
| Waterdown..... | 15,945 | 17,085 | Hudson Bay..... | 11,743 | 11,985 |
| Waterford..... | 14,360 | 15,032 | Humboldt..... | 31,220 | 32,306 |
| Waterloo..... | 237,666 | 258,941 | Indian Head..... | 14,849 | 18,122 |
| Watford..... | 14,084 | 13,715 | Kamsack..... | 18,873 | 20,095 |
| Welland..... | 232,938 | 260,586 | Kerrobert..... | 13,526 | 13,196 |
| Westboro (Ottawa)..... | 112,052 | 119,247 | Kindersley..... | 26,117 | 28,008 |
| West Hill..... | 21,805 | 21,606 | Lloydminster..... | 57,507 | 56,718 |
| West Lorne..... | 10,073 | ¹ | Maple Creek..... | 21,563 | 21,094 |
| Woodroffe (Ottawa)..... | 10,483 | ² | Meadow Lake..... | 19,310 | 21,292 |
| Wheatley..... | 11,132 | 11,242 | Melfort..... | 38,326 | 39,623 |
| Whitby..... | 48,614 | 54,064 | Melville..... | 35,636 | 35,622 |
| Warton..... | 17,867 | 17,358 | Moose Jaw..... | 276,516 | 283,347 |
| Willowdale..... | 243,946 | 282,594 | Moosomin..... | 17,846 | 18,118 |
| Winchester..... | 15,224 | 15,539 | Nipawin..... | 23,659 | 25,098 |
| Windsor..... | 1,496,820 | 1,585,341 | North Battleford..... | 106,704 | 106,536 |
| Wingham..... | 28,672 | 30,900 | Outlook..... | 10,933 | 10,883 |
| Woodbridge..... | 18,630 | 18,381 | Oxbow..... | 10,396 | 11,667 |
| Woodstock..... | 204,873 | 223,229 | Prince Albert..... | 181,596 | 204,292 |
| | | | Regina..... | 2,537,066 | 2,721,492 |
| Manitoba | 9,301,541 | 9,689,165 | Rosetown..... | 26,859 | 27,562 |
| Altona..... | 15,858 | 16,855 | Rosthern..... | 13,028 | 13,107 |
| Beauséjour..... | 13,870 | 14,649 | Saskatoon..... | 983,079 | 1,044,884 |
| Boissevain..... | 12,938 | 13,376 | Shaunavon..... | 21,652 | 21,656 |
| Brandon..... | 267,606 | 273,427 | Shellbrook..... | ¹ | 10,564 |
| Carman..... | 17,255 | 17,468 | Swift Current..... | 111,231 | 116,103 |
| Churchill..... | 10,800 | 11,305 | Tisdale..... | 28,510 | 27,282 |
| Dauphin..... | 84,072 | 82,570 | Unity..... | 18,774 | 19,838 |
| Deloraine..... | 10,547 | 10,391 | Uranium City..... | 24,234 | 27,792 |
| Flin Flon..... | 62,324 | 67,591 | Wadena..... | 13,990 | 14,261 |
| Fort Churchill..... | 22,461 | 29,380 | Watrous..... | 13,197 | 13,140 |
| Gimli..... | 11,249 | 12,275 | Weyburn..... | 60,786 | 65,165 |
| Grand View..... | 10,045 | 10,100 | Wylkie..... | 16,266 | 16,386 |
| Killarney..... | 14,115 | 14,146 | Wynyard..... | 13,237 | 14,406 |
| Lynn Lake..... | ¹ | 10,404 | Yorkton..... | 108,129 | 105,854 |
| Minnedosa..... | 19,680 | 20,542 | | | |
| Morden..... | 16,750 | 16,559 | Alberta | 9,185,729 | 9,866,742 |
| Neepawa..... | 30,204 | 29,494 | Athabasca..... | 15,325 | 15,814 |
| Pine Falls..... | 13,466 | 14,437 | Banff..... | 69,945 | 73,132 |
| Portage la Prairie..... | 93,201 | 92,897 | Banff Springs Hotel..... | 12,453 | 11,507 |
| Rivers..... | 10,063 | 10,872 | Barrhead..... | 17,580 | 17,725 |
| Rivers Camp..... | 10,045 | 10,238 | Beaverlodge..... | 10,132 | 11,157 |
| Roblin..... | 14,262 | 15,159 | Blairmore..... | 14,368 | 13,685 |
| Russell..... | 12,736 | 12,865 | Bonnyville..... | 15,867 | 16,082 |
| Selkirk..... | 32,043 | 35,625 | Bowden..... | 16,544 | 16,089 |
| Shilo..... | 15,481 | 16,110 | Bowness..... | 17,261 | 18,574 |
| Souris..... | 14,712 | 15,485 | Brooks..... | 27,733 | 28,740 |
| Steinbach..... | 26,682 | 24,616 | Calgary..... | 2,660,163 | 2,956,674 |
| Swan River..... | 26,041 | 27,247 | Camrose..... | 59,812 | 61,693 |
| The Pas..... | 32,384 | 39,761 | | | |
| Transcona..... | 20,876 | 23,367 | | | |

¹ Less than \$10,000.² Included in Ottawa.

3.—Gross Postal Revenue of Offices collecting upwards of \$10,000, Years Ended Mar. 31, 1956 and 1957—continued

| Province and Post Office | 1956 | 1957 | Province and Post Office | 1956 | 1957 |
|-----------------------------|-------------------|-------------------|-----------------------------------|-----------|-----------|
| \$ | \$ | | \$ | \$ | |
| Alberta—concluded | | | British Columbia—concluded | | |
| Cardston..... | 20,241 | 20,580 | Courtenay..... | 66,672 | 70,401 |
| Château Lake Louise..... | 11,182 | 11,309 | Cranbrook..... | 56,914 | 59,931 |
| Claresholm..... | 25,418 | 22,600 | Creston..... | 29,904 | 31,133 |
| Coaldale..... | 13,852 | 11,992 | Dawson Creek..... | 69,779 | 90,492 |
| Coleman..... | 12,808 | 11,699 | Duncan..... | 79,368 | 84,936 |
| Currie Barracks..... | 10,993 | 12,562 | Enderby..... | 12,237 | 12,155 |
| Devon..... | 1 | 10,443 | Essondale..... | 1 | 11,777 |
| Didsbury..... | 15,193 | 15,530 | Fernie..... | 25,019 | 24,788 |
| Drumton Valley..... | 16,773 | 27,368 | Fort St. John..... | 20,386 | 31,008 |
| Drumheller..... | 48,122 | 47,149 | Ganges..... | 12,296 | 13,117 |
| Edmonton..... | 3,289,919 | 3,558,967 | Gibsons..... | 14,683 | 15,872 |
| Edson..... | 28,742 | 30,108 | Golden..... | 13,224 | 14,054 |
| Fairview..... | 14,841 | 14,828 | Grand Forks..... | 21,319 | 22,467 |
| Falher..... | 1 | 10,348 | Haney..... | 44,729 | 45,955 |
| Fort Macleod..... | 18,358 | 19,246 | Hope..... | 20,771 | 23,774 |
| Fort Saskatchewan..... | 16,888 | 18,846 | Kamloops..... | 173,096 | 191,231 |
| Grand Centre (MPO 503)..... | 12,566 | 17,360 | Kelowna..... | 157,822 | 164,146 |
| Grande Prairie..... | 71,636 | 78,295 | Kemano..... | 10,489 | 1 |
| Hanna..... | 22,544 | 23,763 | Kimberley..... | 37,769 | 37,665 |
| High Prairie..... | 18,012 | 17,241 | Kitimat..... | 78,078 | 114,295 |
| High River..... | 22,008 | 22,697 | Ladner..... | 33,557 | 35,249 |
| Hinton..... | 1 | 21,080 | Ladysmith..... | 20,222 | 21,108 |
| Innisfail..... | 22,697 | 22,871 | Lake Cowichan..... | 12,527 | 13,240 |
| Jasper..... | 26,298 | 27,971 | Langley..... | 47,168 | 48,457 |
| Lac-la-Biche..... | 1 | 10,246 | Lillooet..... | 12,311 | 11,816 |
| Lacombe..... | 33,975 | 33,449 | Merritt..... | 15,528 | 16,935 |
| Lancaster Park..... | 20,710 | 16,826 | Mission City..... | 56,061 | 57,006 |
| Leduc..... | 17,179 | 17,254 | Nakusp..... | 10,362 | 11,110 |
| Lethbridge..... | 345,435 | 355,852 | Nanaimo..... | 166,591 | 189,167 |
| Lincoln Park..... | 1 | 12,883 | Nelson..... | 127,055 | 127,695 |
| Medicine Hat..... | 144,966 | 155,638 | Newton Station..... | 10,148 | 11,964 |
| Nanton..... | 11,463 | 11,801 | New Westminster..... | 529,057 | 553,503 |
| North Edmonton..... | 20,720 | 20,569 | Ocean Falls..... | 26,616 | 27,043 |
| Olds..... | 27,751 | 29,634 | Oliver..... | 28,125 | 28,503 |
| Peace River..... | 38,519 | 38,624 | Osoyoos..... | 14,313 | 14,067 |
| Pincher Creek..... | 19,595 | 21,280 | Parksville..... | 15,171 | 15,642 |
| Ponoka..... | 33,825 | 34,557 | Penticton..... | 125,603 | 136,754 |
| Provost..... | 11,277 | 11,452 | Port Alberni..... | 83,158 | 95,792 |
| Raymond..... | 14,730 | 15,087 | Port Alice..... | 10,729 | 12,968 |
| Red Deer..... | 143,275 | 158,249 | Port Coquitlam..... | 21,000 | 22,442 |
| Rimbey..... | 10,512 | 10,953 | Port Moody..... | 13,216 | 14,164 |
| Rocky Mountain House..... | 18,465 | 18,163 | Powell River..... | 35,944 | 38,859 |
| St. Paul..... | 21,062 | 21,112 | Prince George..... | 140,009 | 162,094 |
| Spirit River..... | 10,582 | 10,793 | Prince Rupert..... | 110,336 | 109,225 |
| Stettler..... | 37,503 | 39,269 | Princeton..... | 20,027 | 20,011 |
| Stony Plain..... | 11,798 | 11,873 | Qualicum Beach..... | 15,070 | 15,021 |
| Taber..... | 29,021 | 29,754 | Quesnel..... | 50,351 | 57,082 |
| Three Hills..... | 36,418 | 38,789 | Revelstoke..... | 31,135 | 31,293 |
| Vegreville..... | 25,276 | 25,913 | Rossland..... | 22,012 | 21,500 |
| Vermilion..... | 26,972 | 26,364 | Royal Oak..... | 13,367 | 15,443 |
| Viking..... | 11,313 | 11,241 | Salmon Arm..... | 33,761 | 35,115 |
| Vulcan..... | 16,409 | 16,567 | Sardis..... | 15,302 | 16,158 |
| Wainwright..... | 26,209 | 27,378 | Sechelt..... | 1 | 11,072 |
| Westlock..... | 22,022 | 23,662 | Sidney..... | 28,137 | 28,112 |
| Wetaskiwin..... | 45,190 | 46,848 | Smithers..... | 25,116 | 26,667 |
| | | | 100 Mile House..... | 1 | 10,218 |
| | | | Squamish..... | 13,792 | 15,282 |
| British Columbia | 11,078,121 | 15,096,618 | Steveston..... | 18,373 | 16,696 |
| Abbotsford..... | 53,039 | 55,508 | Terrace..... | 29,943 | 35,812 |
| Agassiz..... | 10,983 | 12,551 | Trail..... | 135,566 | 137,619 |
| Alberni..... | 25,191 | 30,508 | Vancouver..... | 7,755,636 | 8,406,236 |
| Aldergrove..... | 14,735 | 15,040 | Vancouver, Air Mail Field..... | 30,334 | 33,819 |
| Alert Bay..... | 11,917 | 11,794 | Vanderhoof..... | 14,960 | 15,766 |
| Armstrong..... | 17,477 | 17,442 | Vedder Crossing..... | 11,087 | 11,300 |
| Ashcroft..... | 12,597 | 13,918 | Vernon..... | 127,143 | 131,843 |
| Burns Lake..... | 16,497 | 17,144 | Victoria..... | 1,545,554 | 1,604,501 |
| Campbell River..... | 44,963 | 57,663 | Victoria Fleet Mail Office..... | 30,962 | 29,068 |
| Camlegar..... | 14,453 | 15,218 | West Summerland..... | 18,768 | 18,832 |
| Chemainus..... | 18,128 | 20,140 | Westview..... | 24,676 | 29,087 |
| Chilliwack..... | 110,499 | 116,025 | White Rock..... | 34,390 | 57,541 |
| Cloverdale..... | 48,754 | 49,745 | White Rock Hilltop..... | 15,698 | 2 |
| | | | Williams Lake..... | 39,813 | 43,553 |

1 Less than \$10,000.

2 Included in White Rock.

3.—Gross Postal Revenue of Offices collecting upwards of \$10,000, Years Ended Mar. 31, 1956 and 1957—concluded

| Province and Post Office | 1956 | 1957 | Province and Post Office | 1956 | 1957 |
|------------------------------------|----------------|----------------|-------------------------------|--------------------|--------------------|
| | \$ | \$ | | \$ | \$ |
| Yukon Territory | 114,859 | 120,649 | Summary—concluded | | |
| Dawson..... | 11,837 | 12,387 | New Brunswick..... | 3,820,680 | 3,907,335 |
| RCAF Station, Whitehorse.. | 18,230 | 17,166 | Quebec..... | 34,374,436 | 36,593,237 |
| Whitehorse..... | 67,418 | 71,496 | Ontario..... | 61,190,037 | 65,807,534 |
| Northwest Territories | 55,828 | 62,720 | Manitoba..... | 9,301,541 | 9,689,165 |
| Yellowknife..... | 28,766 | 31,596 | Saskatchewan..... | 6,791,238 | 7,106,478 |
| Summary | | | Alberta..... | 9,185,729 | 9,866,742 |
| Newfoundland..... | 1,506,873 | 1,578,986 | British Columbia..... | 14,078,121 | 15,096,618 |
| Prince Edward Island..... | 457,139 | 465,088 | Yukon and N.W.T..... | 170,687 | 183,369 |
| Nova Scotia..... | 4,685,219 | 4,883,169 | Canada | 145,561,700 | 155,177,721 |
| | | | P.C. of all Postal Revenue... | 91.8 | 92.4 |

Auxiliary Postal Services.—Auxiliary postal services include the issuing of money orders and the operation of the Post Office Savings Bank.

Table 4 shows the amount of money order business conducted by the postal service in recent years. A table showing the financial business of the Post Office Savings Bank will be found in Chapter XXVI on Currency and Banking.

4.—Operations of the Money Order System, Years Ended Mar. 31, 1948-57

NOTE.—Figures from 1868 will be found in the corresponding table of previous Year Books beginning with the 1911 edition.

| Year | Money Order Offices in Canada | Money Orders Issued in Canada | Value of Orders Issued in Canada | Value Payable in— | | Value of Orders Issued in Other Countries, Payable in Canada |
|-----------|-------------------------------|-------------------------------|----------------------------------|-------------------|-----------------|--|
| | | | | Canada | Other Countries | |
| | No. | No. | \$ | \$ | \$ | \$ |
| 1948..... | 7,546 | 27,705,523 | 370,232,987 | 359,633,658 | 10,599,329 | 7,722,585 |
| 1949..... | 7,614 | 28,851,065 | 415,703,754 | 409,167,635 | 6,536,119 | 7,410,014 |
| 1950..... | 11,252 | 38,567,500 | 479,520,987 | 473,364,799 | 6,156,187 | 6,697,818 |
| 1951..... | 11,387 | 40,415,207 | 511,915,621 | 505,935,524 | 5,980,096 | 3,920,218 |
| 1952..... | 11,320 | 41,782,109 | 580,823,622 | 571,396,122 | 9,427,500 | 3,019,522 |
| 1953..... | 11,288 | 43,067,940 | 623,266,884 | 606,289,305 | 16,977,579 | 4,982,551 |
| 1954..... | 11,264 | 45,797,958 | 676,080,657 | 656,515,831 | 19,564,826 | 4,763,566 |
| 1955..... | 11,200 | 46,902,959 | 690,824,787 | 668,930,066 | 21,894,721 | 5,008,716 |
| 1956..... | 11,099 | 49,081,082 | 725,930,733 | 704,230,646 | 21,700,086 | 4,643,217 |
| 1957..... | 11,022 | 51,182,296 | 799,615,004 | 772,708,244 | 26,906,761 | 5,033,806 |

PART V.—THE PRESS

About 105 daily newspapers, counting morning and evening editions separately, are published in Canada. They have an aggregate reported circulation of nearly 4,000,000—about 82 p.c. in English, 17 p.c. in French and the remainder in other languages. Ten of the daily newspapers enjoying circulations in excess of 100,000 account for more than half of the circulation. French dailies, as would be expected, have their widest circulation in Quebec where 10 of the 12 in existence in 1956 were published. Some of the largest of these papers have been established in that Province for over 60 years. Foreign-language publications, shown in Table 5, are gaining rapidly in number and circulation as a result of recent heavy immigration.

Weekly newspapers serve more people in rural communities than do the dailies. They cater to local interests and exercise an important influence in the areas they serve.

The Canadian Press, a co-operative organization owned and operated by Canada's daily newspapers, provides its 95 members with world and Canadian news and news photographs, mostly by means of teletype and wirephoto transmission. It also serves weekly newspapers and radio and television stations. It is, in effect, a partnership through which each member newspaper provides to its fellow members the news of its particular area and through which the general news of the world is brought to Canada. Cost of editing and transmission is divided among members according to the population of the cities in which they publish. CP gets world news from Reuters, the British agency, and from the Associated Press, the United States co-operative, and these agencies have reciprocal arrangements with CP for their coverage of Canada.

The United Press International (the British United Press and the United Press combined in May 1958) also provides a service of Canadian and world news, news photographs and related features for Canadian newspapers, radio and television stations. There are, as well, special news services operated by affiliated newspapers and individual newspapers. Several foreign news agencies have representatives in Canada to supply and interpret news of Canadian origin, as have a number of the leading United Kingdom and United States newspapers. Most of the latter are located at Ottawa.

Press Statistics.—The following tables are based on data estimated from *Canadian Advertising*. One serious difficulty has been encountered in connection with the compilation of circulation figures. Reliable circulation figures are relatively easy to obtain for daily newspapers because, in their own best interest, such papers qualify for and subscribe to the Audit Bureau of Circulation requirements: for these, A.B.C. 'net paid' figures have been used. However, it is difficult to obtain reliable circulation figures for many weekly newspapers and for magazines, and those shown in the following tables should be used with reservations.

1.—Estimated Numbers and Circulations¹ of reporting Daily and Weekly² English-Language Newspapers by Province 1954-56

NOTE.—Figures from 1945 will be found in the corresponding table of previous Year Books beginning with the 1947 edition.

| Province or Territory | 1954 | | | | 1955 | | | | 1956 | | | |
|-----------------------|-------|-------------|---------------------|------------------------|-------|-------------|--------|------------------------|-------|-------------|--------|------------------------|
| | Daily | | Weekly ³ | | Daily | | Weekly | | Daily | | Weekly | |
| | No. | Circulation | No. | Circulation | No. | Circulation | No. | Circulation | No. | Circulation | No. | Circulation |
| Nfld. | 3 | 31,703 | 4 | 29,122 | 3 | 28,923 | 4 | 29,815 | 3 | 32,276 | 4 | 30,725 |
| P.E.I. | 2 | 18,910 | 1 | 5,435 | 2 | 19,042 | 1 | 5,735 | 2 | 19,446 | 1 | 5,626 |
| N.S. | 5 | 148,470 | 27 | 80,066 | 5 | 150,339 | 26 | 79,056 | 5 | 149,557 | 26 | 81,906 |
| N.B. | 3 | 75,701 | 19 | 58,863 | 3 | 77,960 | 17 | 51,962 | 3 | 80,657 | 17 | 53,612 |
| Que. | 5 | 294,867 | 31 | 1,552,119 ⁴ | 5 | 307,186 | 25 | 1,454,979 ⁴ | 5 | 314,080 | 24 | 1,556,350 ⁴ |
| Ont. | 40 | 1,635,723 | 256 | 1,575,487 | 40 | 1,681,106 | 254 | 1,597,398 | 41 | 1,688,314 | 252 | 1,637,072 |
| Man. | 6 | 196,697 | 66 | 107,506 | 6 | 205,065 | 66 | 85,150 | 6 | 207,848 | 67 | 82,684 |
| Sask. | 4 | 98,480 | 152 | 164,614 | 4 | 102,365 | 150 | 146,900 | 4 | 101,602 | 164 | 146,205 |
| Alta. | 5 | 196,823 | 99 | 128,153 | 5 | 204,927 | 98 | 146,869 | 5 | 215,017 | 108 | 174,775 |
| B.C. | 11 | 431,679 | 80 | 197,510 | 12 | 447,763 | 81 | 166,985 | 12 | 439,295 | 82 | 183,917 |
| Yukon and N.W.T. | — | — | 3 | 4,250 | — | — | 2 | 3,875 | — | — | 2 | 4,215 |
| Canada | 84 | 3,129,053 | 738 | 3,903,125 | 85 | 3,224,676 | 724 | 3,768,724 | 86 | 3,248,092 | 747 | 3,957,087 |

¹ Circulation not reported for all newspapers.

² Includes some bilinguals.

³ Includes some bilinguals.

⁴ Includes one week-end supplement which is circulated with daily newspapers in other provinces.

² Includes semi-weeklies, tri-weeklies and week-end newspapers.

³ Includes one week-end supplement which is circulated with daily newspapers in other provinces.

2.—Estimated Numbers and Circulations¹ of reporting Daily and Weekly² French-Language Newspapers by Province 1951-56

NOTE.—Figures from 1945 will be found in the corresponding table of previous Year Books beginning with the 1947 edition.

| Province | 1954 | | | | 1955 | | | | 1956 | | | |
|----------|-------|-------------|---------------------|------------------------|-------|-------------|---------------------|------------------------|-------|-------------|---------------------|------------------------|
| | Daily | | Weekly ³ | | Daily | | Weekly ³ | | Daily | | Weekly ³ | |
| | No. | Circulation | No. | Circulation | No. | Circulation | No. | Circulation | No. | Circulation | No. | Circulation |
| N.S. | — | — | 1 | 1,433 | — | — | 1 | 1,398 | — | — | 1 | 1,431 |
| N.B. | 1 | 7,468 | 2 | 7,144 | 1 | 7,268 | 2 | 7,476 | 1 | 7,374 | 2 | 7,463 |
| Que. | 11 | 616,036 | 123 ¹ | 1,667,407 ⁴ | 10 | 616,999 | 140 | 2,045,012 ⁴ | 10 | 615,648 | 142 | 2,122,174 ⁴ |
| Ont. | 1 | 26,017 | 4 ¹ | 16,951 ¹ | 1 | 26,976 | 5 | 19,035 | 1 | 27,950 | 5 | 13,989 |
| Man. | — | — | 1 | 10,120 | — | — | 1 | 9,950 | — | — | 1 | 9,141 |
| Sask. | — | — | 1 | 1,202 | — | — | 1 | 1,702 | — | — | 1 | 3,281 |
| Alta. | — | — | 1 | 3,409 | — | — | 1 | 4,218 | — | — | 1 | 3,710 |
| Totals | 13 | 649,521 | 133 | 1,767,666 ¹ | 12 | 651,243 | 151 | 2,088,791 | 12 | 650,972 | 153 | 2,161,189 |

¹ Circulation not reported for all newspapers.

² Includes semi-weeklies and week-end newspapers.

³ Includes some bilinguals in 1954 and all bilinguals in 1955 and 1956.

which is circulated with newspapers in other provinces.

⁴ Includes one week-end supplement

3.—Estimated Numbers and Circulations of reporting Daily and Weekly English-Language Newspapers Published in Urban Centres of 30,000 Population or Over 1955 and 1956

NOTE.—Figures from 1945 will be found in the corresponding table of previous Year Books beginning with the 1947 edition.

| Urban Centre | Census 1956 | 1955 | | | | 1956 | | | |
|------------------------|-------------|-------|-------------|--------|------------------------|-------|-------------|--------|------------------------|
| | | Daily | | Weekly | | Daily | | Weekly | |
| | | No. | Circulation | No. | Circulation | No. | Circulation | No. | Circulation |
| Brantford, Ont. | 14,642 | 1 | 20,561 | — | — | 1 | 20,948 | — | — |
| Calgary, Alta. | 52,785 | 2 | 89,373 | 1 | 10,000 | 2 | 95,709 | 1 | 13,000 |
| Edmonton, Alta. | 57,748 | 1 | 93,525 | 1 | 4,269 | 1 | 97,023 | 2 | 11,965 |
| Fort William, Ont. | 10,118 | 1 | 13,877 | — | — | 1 | 14,133 | — | — |
| Guelph, Ont. | 9,284 | 1 | 11,844 | — | — | 1 | 12,286 | — | — |
| Halifax, N.S. | 21,194 | 1 | 108,992 | — | — | 1 | 107,199 | — | — |
| Hamilton, Ont. | 63,815 | 2 | 101,834 | — | — | 1 | 92,715 | — | — |
| Kingston, Ont. | 12,499 | 1 | 20,363 | 1 | 40,337 ¹ | 1 | 20,626 | 1 | 42,816 ¹ |
| Kitchener, Ont. | 16,074 | 1 | 31,677 | — | — | 1 | 32,642 | — | — |
| London, Ont. | 28,962 | 1 | 94,437 | — | — | 1 | 98,724 | — | — |
| Moncton, N.B. | 8,647 | 1 | 21,836 | — | — | 1 | 22,759 | — | — |
| Montreal, Que. | 285,501 | 3 | 293,061 | 4 | 1,393,953 ² | 3 | 299,116 | 3 | 1,494,469 ³ |
| New Westminster, B.C. | 8,874 | 1 | 12,104 | — | — | 1 | 12,880 | — | — |
| Oshawa, Ont. | 13,530 | 1 | 12,454 | — | — | 1 | 13,000 | — | — |
| Ottawa, Ont. | 56,059 | 2 | 118,463 | 1 | 15,125 | 2 | 121,899 | 1 | 15,125 |
| Peterborough, Ont. | 11,632 | 1 | 18,051 | 1 | 5,690 | 1 | 18,644 | 1 | 5,492 |
| Port Arthur, Ont. | 9,979 | 1 | 12,637 | — | — | 1 | 12,430 | — | — |
| Quebec, Que. | 38,556 | 1 | 5,513 | — | — | 1 | 6,267 | — | — |
| Regina, Sask. | 23,883 | 1 | 47,387 | 1 | 2,400 | 1 | 47,334 | 1 | 2,400 |
| St. Catharines, Ont. | 10,971 | 1 | 23,671 | — | — | 1 | 24,537 | — | — |
| St. John's, Nfld. | 11,219 | 2 | 25,278 | 2 | 24,702 ⁴ | 2 | 26,974 | 2 | 25,532 ⁴ |
| Saint John, N.B. | 13,336 | 1 | 45,016 | 2 | 10,550 | 1 | 45,838 | 2 | 10,600 |
| Sarnia, Ont. | 11,917 | 1 | 13,853 | 1 | 11,000 | 1 | 14,374 | 1 | 15,000 |
| Saskatoon, Sask. | 20,315 | 1 | 38,510 | — | — | 1 | 38,531 | — | — |
| Sault Ste. Marie, Ont. | 9,169 | 1 | 13,545 | — | — | 1 | 14,023 | — | — |
| Sherbrooke, Que. | 13,646 | 1 | 8,612 | 1 | 3,400 | 1 | 8,697 | 1 | 3,400 |
| Sudbury, Ont. | 11,526 | 1 | 25,154 | — | — | 1 | 26,192 | — | — |
| Sydney, N.S. | 6,914 | 1 | 27,035 | — | — | 1 | 26,867 | — | — |
| Toronto, Ont. | 157,137 | 4 | 908,454 | 4 | 1,038,551 ⁵ | 4 | 901,605 | 5 | 1,009,291 ⁵ |
| Three Rivers, Que. | 10,912 | — | — | 1 | 4,162 | — | — | 1 | 4,162 |
| Vancouver, B.C. | 108,953 | 3 | 354,502 | 6 | 23,538 | 3 | 343,756 | 7 | 33,258 |
| Verdun, Que. | 21,009 | — | — | 1 | 8,861 | — | — | 1 | 8,113 |
| Victoria, B.C. | 17,309 | 2 | 50,210 | 1 | 3,000 | 2 | 51,051 | 1 | 2,500 |
| Windsor, Ont. | 33,280 | 1 | 75,164 | — | — | 1 | 77,170 | — | — |
| Winnipeg, Man. | 67,798 | 2 | 188,695 | 1 | .. | 2 | 190,822 | 1 | .. |

¹ Week-end newspaper.

² Includes two week-end newspapers, one of which, a week-end supplement, is circulated with daily newspapers in other cities.

³ Includes one week-end supplement which is circulated with daily newspapers in other cities.

⁴ Includes one week-end newspaper.

⁵ Includes two week-end newspapers.

4.—Estimated Numbers and Circulations of reporting Daily and Weekly French-Language Newspapers Published in Urban Centres of 30,000 Population or Over 1955 and 1956

NOTE.—Figures from 1945 will be found in the corresponding table of previous Year Books beginning with the 1947 edition.

| Urban Centre | Census 1956 | 1955 | | | | 1956 | | | |
|------------------------|-----------------|-------|-------------|--------|------------------------|-------|-------------|--------|------------------------|
| | House- holds | Daily | | Weekly | | Daily | | Weekly | |
| | | No. | Circulation | No. | Circulation | No. | Circulation | No. | Circulation |
| Edmonton, Alta..... | 57,748 | — | — | 1 | 4,218 | — | — | 1 | 3,710 |
| Hull, Que..... | 11,167 | — | — | 3 | 66,275 ¹ | — | — | 3 | 48,172 ¹ |
| Lachine, Que..... | 8,557 | — | — | 1 | 14,000 ² | — | — | 1 | 14,000 ² |
| Moncton, N.B..... | 8,647 | 1 | 7,268 | — | — | 1 | 7,374 | — | — |
| Montreal, Que..... | 285,501 | 4 | 352,041 | 22 | 1,463,714 ³ | 4 | 350,318 | 26 | 1,617,646 ⁴ |
| Ottawa, Ont..... | 56,059 | 1 | 26,976 | — | — | 1 | 27,950 | — | — |
| Quebec, Que..... | 38,556 | 2 | 199,278 | — | — | 2 | 197,428 | — | — |
| St. Laurent, Que..... | 9,304 | — | — | 1 | 8,252 | — | — | 1 | 5,000 ² |
| Sherbrooke, Que..... | 13,646 | 1 | 25,421 | 1 | 35,866 | 1 | 26,732 | 1 | 35,866 |
| Sudbury, Ont..... | 11,526 | — | — | 1 | 1,851 | — | — | 1 | 1,989 |
| Three Rivers, Que..... | 10,912 | 1 | 29,983 | 3 | 14,312 | 1 | 31,359 | 3 | 7,812 ⁵ |
| Verdun, Que..... | 21,009 | — | — | 1 | 24,000 ² | — | — | — | — |
| Winnipeg, Man..... | 67,798 | — | — | 1 | 9,950 | — | — | 1 | 9,141 |

¹ Includes one week-end supplement which is circulated with daily newspapers in other cities.

² Includes ten bilinguals and ten week-end newspapers.

³ Bilingual.

⁴ Circulation for two weeklies only.

⁵ Includes 11 bilinguals and 11 week-end newspapers.

5.—Estimated Numbers and Circulations of Foreign-Language Publications 1955 and 1956

NOTE.—Figures from 1945 will be found in the corresponding table of previous Year Books beginning with the 1947 edition.

| Language | 1955 | | 1956 | |
|-----------------------|------|---------------------|------|---------------------|
| | No. | Circulation | No. | Circulation |
| Bulgarian..... | 2 | 4,500 | 2 | 4,500 |
| Byelorussian..... | 1 | 1,213 | 1 | 2,213 |
| Chinese..... | 5 | 14,643 ¹ | 5 | 14,643 ¹ |
| Czech..... | 1 | 4,873 | 1 | 4,873 |
| Czech and Slovak..... | 2 | 6,516 | 2 | 6,516 |
| Danish..... | 1 | 1,715 | 1 | 1,715 |
| Dutch..... | 8 | 33,053 | 8 | 33,316 |
| Estonian..... | 2 | 9,855 | 2 | 9,787 |
| Finnish..... | 4 | 14,631 | 4 | 14,631 |
| German..... | 8 | 81,146 | 9 | 88,687 |
| Hungarian..... | 2 | 7,674 | 2 | 7,674 |
| Icelandic..... | 3 | 8,510 | 2 | 3,935 |
| Italian..... | 5 | 53,512 | 5 | 52,087 |
| Japanese..... | 2 | 7,010 | 2 | 7,010 |
| Latvian..... | 2 | 7,425 | 2 | 7,425 |
| Lithuanian..... | 3 | 10,470 ² | 3 | 10,470 ² |
| Maltese..... | 1 | 833 | 1 | 1,274 |
| Norwegian..... | 1 | 4,880 | 1 | 4,880 |
| Polish..... | 4 | 45,987 | 4 | 46,218 |
| Russian..... | 1 | 4,018 | 1 | 4,018 |
| Serbian..... | 5 | 32,684 | 5 | 32,440 |
| Slovenian..... | 1 | 3,114 | 1 | 3,114 |
| Swedish..... | 2 | 4,711 | 2 | 4,171 |
| Ukrainian..... | 15 | 124,849 | 18 | 148,745 |
| Yiddish..... | 4 | 54,631 | 4 | 55,044 |

¹ Circulation for four publications only.

² Circulation for two publications only.

Table 6 shows the number of publications, other than newspapers, published in Canada. Monthly and weekly magazines and periodicals enjoy the largest circulation; those dealing with home, social and welfare, agricultural and rural topics, trade, industry and related subjects and religious publications are the most popular.

6.—Estimated Numbers and Circulations of reporting Magazines and Related Publications by Broad Classifications 1954-56

NOTE.—Figures from 1945 will be found in the corresponding table of previous Year Books beginning with the 1947 edition.

| Classification | 1954 | | | 1955 | | | 1956 | | |
|---|------------|------------|-------------------|------------|------------|-------------------|------------|------------|-------------------|
| | Listed | Reporting | | Listed | Reporting | | Listed | Reporting | |
| | No. | No. | Circulation | No. | No. | Circulation | No. | No. | Circulation |
| Agricultural and rural..... | 59 | 57 | 2,610,199 | 55 | 53 | 2,565,302 | 55 | 52 | 2,665,856 |
| Arts, crafts and professions..... | 20 | 20 | 104,902 | 26 | 23 | 345,290 | 28 | 25 | 170,763 |
| Construction..... | 21 | 20 | 148,156 | 21 | 20 | 131,309 | 21 | 20 | 140,221 |
| Educational..... | 66 | 64 | 524,786 | 69 | 67 | 521,028 | 71 | 71 | 641,126 |
| Finance and insurance..... | 13 | 9 | 111,986 | 14 | 10 | 275,865 | 14 | 11 | 183,472 |
| Government and government services..... | 29 | 28 | 302,385 | 31 | 30 | 347,865 | 34 | 32 | 471,561 |
| Home, social and welfare..... | 46 | 42 | 4,336,715 | 44 | 40 | 4,425,193 | 43 | 41 | 4,308,466 |
| Labour..... | 16 | 13 | 231,757 | 15 | 13 | 264,846 | 13 | 12 | 261,108 |
| Pharmaceutical and medical..... | 33 | 30 | 129,717 | 34 | 30 | 143,222 | 37 | 32 | 374,065 |
| Religious..... | 33 | 33 | 628,264 | 32 | 32 | 891,937 | 33 | 33 | 920,633 |
| Services and directories..... | 61 | 56 | 455,200 | 69 | 59 | 487,007 | 73 | 61 | 609,864 |
| Sports and entertainment..... | 33 | 29 | 409,269 | 33 | 30 | 403,889 | 30 | 28 | 363,894 |
| Trade, industry and other related publications..... | 188 | 180 | 869,183 | 202 | 190 | 1,031,713 | 208 | 199 | 1,131,872 |
| Transportation and travel..... | 29 | 28 | 311,098 | 33 | 32 | 391,134 | 35 | 33 | 422,130 |
| Miscellaneous..... | 17 | 16 | 198,738 | 13 | 13 | 136,795 | 11 | 11 | 127,702 |
| Totals..... | 664 | 625 | 11,372,355 | 691 | 642 | 12,362,395 | 706 | 661 | 12,792,733 |

A HISTORY OF CANADIAN JOURNALISM, 1752- (Circa) 1900*

The press of Canada has had a 200-year history. During that time journalism has grown from a small, weak entity which at first made little impact on the country's development into a large and important component of the national life. A landmark in the story of that growth came at the end of the nineteenth century when Canadian journalism, like the journalism of so many other countries, underwent a rather sudden and impressive metamorphosis. The present article tells the story up to the time of that change. It considers the 150-year period in three time divisions: (1) 1752-1807, the years when the press was being transplanted to Canada from the New England colonies; (2) 1807-1858, the era when the gains made during the earlier half-century were consolidated in Canada's six easternmost provinces; and (3) 1858 to *circa* 1900, a second time of journalistic pioneering when the press moved with the settlers into Canada's western provinces and northern territories. A second article covering the post-1900 history of Canadian journalism proposes to examine the manner in which technology has transformed the press of Canada into the large-scale, heavily capitalized enterprise so familiar today. This article is planned for the next edition of the Canada Year Book.

FIRST PERIOD: THE TRANSPLANT, 1752 TO 1807

The press of British North America began as a transplant from New England rather than as a growth from seed. Most of the newspaper developments that had occurred in Britain after Caxton's introduction of printing in 1478 had been incorporated into New World journalism. Moreover, the press of the colonies which were later to become Canada's

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six easternmost provinces gained from a 50-year pre-hardening process under the semi-pioneering conditions of Massachusetts, Pennsylvania and New York. As England wrested control of the northeastern part of the Continent from the French and as pioneer settlements appeared as isolated pockets in the surrounding wilderness, the first news organs were set up. Thus Halifax gained its first newspaper a scant three years after the Honourable Edward Cornwallis started the seaport town on the rocky soil of Chebucto. Saint John's press arrived with United Empire Loyalists who established the centre, and Quebec's first press venture was launched only a year after the Treaty of Paris gave control of New France to the British. Under the primitive conditions of the day the early printer-editor worked along with the joiner, the blacksmith, the attorney, the linen draper, the tallow candler, the cabinet maker and the soapmaker in serving his small community.

SOME EARLY NEWSPAPERS

The first paper established in the Canada-to-be was the *Halifax Gazette*. Bartholomew Green Jr. established the first printing office in Halifax with a press brought from Boston, but died before he could produce a newspaper; it fell to the lot of his colleague, John Bushell, to launch Canada's pioneer press venture with his issue of the *Halifax Gazette* on Mar. 23, 1752. This event inaugurated a journalistic period that may be considered, only a little arbitrarily, to have lasted until 1807. It was during that 55-year interval that all six of Canada's easternmost provinces made their press beginnings. Quebec's pioneer paper was the *Quebec Gazette*, started by William Brown and Thomas Gilmore in Quebec City in 1764. It survives today as part of the *Quebec Chronicle-Telegraph*, which makes the valid claim that it is the oldest continuing newspaper in North America. John Ryan and William Lewis set up the *Royal St. John Gazette* in Saint John in 1783, a year before the county of Sunbury was detached from Nova Scotia to form the Province of New Brunswick. Prince Edward Island had its journalistic start in 1787 when James Robertson founded the *Royal American Gazette and Weekly Intelligencer* at Charlottetown. The *Upper Canada Gazette*, launched by Louis Roy at Newark (now Niagara-on-the-Lake) in 1793, was the pioneer paper for what later became the Province of Ontario. Newfoundland gained its first news-organ when John Ryan, the New Brunswick press pioneer, set up the *Newfoundland Gazette* in 1807.

The longevity of these early news-sheets was directly related to the support they got. The *Halifax Gazette* under Anthony Henry lasted until 1766 when it was suspended for criticizing the Stamp Act, and was replaced by the *Nova Scotia Gazette*, edited by Robert Fletcher. In 1769, Anthony Henry began the *Nova Scotia Chronicle and Weekly Advertiser*, which absorbed the Fletcher paper the following year, and Henry became, without being so titled, King's Printer again. His renamed paper, the *Nova Scotia Gazette and Weekly Chronicle*, has since been turned into a provincial government gazette. The Henry news-organ was joined in Halifax by John Howe's *Halifax Journal* in 1781 and William Minns' *Weekly Chronicle* in 1786, by which time the latter title had been dropped from the *Gazette*. At the end of the eighteenth century the three Halifax papers enjoyed a tranquil Nova Scotia journalistic monopoly. Alike as three peas in a pod, they amiably shared in the printing patronage being given by the Halifax-centred government. Howe's paper lasted until 1870, while the *Chronicle* perished in 1837.

Meanwhile the only other press ventures in Nova Scotia had not been so successful. At Shelburne, the *Royal American Gazette* of James and Alexander Robertson and Nathaniel Mills, the *Port Roseway Gazetteer and Shelburne Advertiser* of James Robertson Jr. and Thomas and James Swords, and the *Nova Scotia Packet and General Advertiser* of James Humphreys had appeared after the founding of the Loyalist town in 1783. But when the British Government withdrew its financial aid to the centre in 1787, the town collapsed and the papers soon perished.

The second newspaper in New Brunswick was the *Royal Gazette and General Advertiser*, begun in 1785 by Christopher Sower III, who was made King's Printer of the new Province. When Sower left for the United States in 1799, John Ryan succeeded him in his government-appointed office, and the paper, which underwent more than one change of name, became

known as the *Royal Gazette and New Brunswick Advertiser*. It lasted until at least 1814. An abortive production, the *Fredericton Telegraph*, was started by Ryan's son Michael in 1806, but it died early in 1807.

Even the "official" newspapers of Prince Edward Island had a most difficult early existence since government support was of the most niggardly kind. Robertson's *Gazette* certainly lasted no longer than 1789. W. A. Rind printed the *Royal Gazette and Miscellany of the Island of St. John* from July 1791 to July 1792. In 1805 James Douglas Bagnall started the *Royal Herald*, but it was not much longer-lasting.

In Lower Canada the *Quebec Gazette* was joined by a paper of comparable vigour and individuality. This was the *Montreal Gazette*, first published as the French-language *La Gazette du Commerce et Littéraire* by Fleury Mesplet in 1778, and boasting a rather tenuous connection with Benjamin Franklin. Its early vicissitudes sprang from the improvidence of Mesplet and the indiscretions of his outspoken editor, Valentin Jautard, but later, favoured with patronage somewhat similar to that enjoyed by the *Quebec Gazette* in Quebec City, it was able to stand off the challenge of Louis Roy who, in 1795 and 1796, issued a journal practically identical in format and bearing the same name. Edward Edwards was the editor of the original *Montreal Gazette* during this period of strange competition. The older publication still flourishes as a metropolitan daily. *Le Courier de Québec*, published in 1788 by William Moore, lasted for only three editions but its English counterpart, the *Quebec Herald*, had better success. *The Times—Le Cours du Temps*, begun by John Jones in June 1794 and continued by William Vondenvelden, ceased to publish in July 1795. The *Quebec Mercury*, founded by Thomas Cary in 1805, lasted until 1903, and *Le Canadien*, originated by Pierre Bédard and François Blanchet in 1806, continued until 1909. Their greater prominence came during the second press period.

In what is today Ontario, the official *Upper Canada Gazette* was the only paper to enjoy much success until after 1807. Its chief impermanence was that of editorship, with Gideon Tiffany, Silvester Tiffany, Titus Geer Simons, William Waters, John Bennett and John Cameron serving in ill-defined editor-printer roles before the period's end. The paper lasted until at least 1845.

The Tiffany brothers established Upper Canada's second newspaper, the *Canada Constellation*, at Niagara in 1799. When it ceased publication in 1800, Gideon Tiffany left Canada for the United States. Silvester Tiffany began the *Niagara Herald* in January of the following year, but it survived only until August 1802. Upper Canada's fourth newspaper, Joseph Willcocks' *Upper Canada Guardian and Freeman's Journal*, appeared in September 1807 at the very close of the first journalistic era. During its short career, which ended in 1812, it was to take on the new and characteristic tone of the second British North American press period.

CHARACTERISTICS OF EARLY NEWSPAPERS

The character of the earliest newspapers was determined largely by the conditions under which they were produced. Because the pioneer news-sheets of the six eastern colonies were dependent for existence on the revenue which government patronage provided, a large part of their content consisted of government announcements, proclamations, orders and enactments. The first editor to become established was normally King's Printer even though he did not always carry that title. Even the so-called non-government press was frequently paid for publishing governmental matter. Another type of newspaper matter that was especially prominent was foreign news. Since newspaper subscribers were isolated from the more civilized parts of the world, stories from populous places were eagerly read even though they were usually months old. Such reports were preferred to local news accounts which passed by word of mouth faster than the slow weeklies could disseminate them. Advertisements were for the most part small, unemphatic and unimaginative, but they helped to supplement meagre revenues. Insertions ranged from those offering legal services, school lessons and property for sale to the tasteless and lengthy listings of general store commodities.

The pervasive dependence of the early press on government support and patronage had an important effect on newspaper tone between 1752 and 1807. The early editor was almost completely subservient to the officials of the day; since he needed government business, he carefully avoided comment on the conduct of those in authority. With rare and rather accidental exceptions, he refrained from examining contentious political questions. Such general newspaper docility made the characteristic journal of the time a pallid, neutral, harmless sheet without any really vital role to play in the social and political life of the community.

In keeping with its innocuous character, the pages of the journal of that day looked like the dull, unbroken columns of *Hansard*. What few heads it used were chiefly label heads, not much larger than the body type of the stories they introduced. Illustrations were extremely small wood cuts that were generally restricted to the advertisements. Because the papers of 1752 to 1807, unlike their modern counterparts, were read thoroughly from beginning to end by most readers, because stories did not have their endings lopped off at the last minute to make room for late news, and because no overworked head-writers were kept busy supplying headlines for a constant flow of news stories, there was no reason for using the inverted pyramid writing convention common in the modern newspaper. The "lead", as the twentieth century reporter understands it, was unknown. Instead, news accounts were presented in chronological order and written in discursive, literary style. News was not departmentalized, but items were generally thrown into the paper as they came to hand, so that two issues of the same news-organ were usually quite dissimilar in format. Early journals were closer to the modern tabloid than to the modern "bedsheet" urban daily in page size, although they varied considerably in both shape and size. The *Halifax Gazette*, for example, started as a half-sheet of foolscap and was a two-column production. Other papers were folio or quarto, while still others were not one of the standard sizes at all. The early news-sheets rarely contained more than four pages.

Since newspaper production was usually a laborious one-man operation that used a hand-operated, flatbed press employing handset type, press-runs were small and publication no more frequent than once a week. Small populations also kept circulations low. Thus the *Halifax Gazette* began life with only 72 subscribers, the *Royal American Gazette* of Charlottetown had a circulation list of not more than 50 names, and the first issue of the *Quebec Gazette* had only 143 buyers. At the end of the period, the three weeklies in Halifax had a combined circulation of 2,000.

MAGAZINE JOURNALISM

The magazine press was virtually non-existent during the first journalistic period. The earliest periodical was the *Nova Scotia Magazine and Comprehensive Review of Literature, Politics and News*, a Halifax monthly begun in July 1789 with Rev. William Cochran as first editor and John Howe as printer. Later Howe edited it as well. The project was abandoned in March 1792. Second of its kind, *The Quebec Magazine*, half of which was written in French, appeared monthly in Quebec City with Alexander Spark as editor, Samuel Neilson as first, and his brother John as later printer. It existed from August 1792 to May 1794. In the same City, John Neilson also edited *The British American Register* throughout its short life from January to August, 1803. *The Nova Scotia and New Brunswick or Historical, Literary, Theological and Miscellaneous Repository* was established in Halifax in 1806, but it too did not last long.

SECOND PERIOD: CONSOLIDATION AND GROWTH, 1807 TO 1858

Whereas the first period was a time of journalistic pioneering, the 1807-to-1858 era in Canadian journalism was a time of consolidation when the transplant growth of the early years thickened and roots were sunk deeper. There was a steady proliferation of newspapers in the two Canadas and in the four maritime colonies.

NUMERICAL INCREASE

The economic basis for the accelerated newspaper growth of the first half of the nineteenth century was furnished by the great gains made in population and wealth. The suddenly rising activity of the timber trade, which was the first primary industry to provide a return-cargo situation favourable to immigration, the shipbuilding boom in New Brunswick, depressed conditions in Europe, and the postwar attraction of Americans to British North America after 1815, caused new settlers to flock into the young, developing country. They flowed into the seaport towns of Nova Scotia, the river valleys of New Brunswick, and the lakeshores and forests of Upper Canada. The latter province alone increased in population from 213,000 at the start of the influx of the 1820's to 430,000 after 1830. In the decade of the 1840's the combined provinces of Canada gained 677,000. Particularly in Canada West there was a growing specialization in primitive manufacturing, involving a transfer from the home to the local shop. Grist millers, tanners, wagon makers, whisky distillers, brewers, cobblers, weavers and blacksmiths began to establish themselves in the new centres to serve the surrounding community. The enterprising editor found a ready welcome in the group, and as towns sprang up new journals were established.

The mortality rate among such newspapers was high, but where one news-organ died two sprang up to take its place. The result was a steady increase from fewer than 20 news-sheets in 1813 to 291 in 1857. No records have been left to show the year-by-year increase in each province, but some figures from Upper and Lower Canada indicate the trend. In 1813, when many journals were casualties of the war with the United States, there were five newspapers in Lower and one in Upper Canada. In 1824 there were 12 in the former and seven in the latter province. By 1827 the combined total had dropped to 17 but by 1829 the number had grown to 27, by 1831 to 37, and by 1836 to 50. Of the latter, 30 were in Upper Canada. By 1853 Canada West boasted 114 news-organs; by 1857 it had 159. Canada East supported 54 in the latter year.

SOME IMPORTANT NEWSPAPERS OF THE PERIOD

It would be impossible even to list all the newspapers that came into existence during the first half of the nineteenth century. It is perhaps sufficient to mention only the most important. These were notable for their longevity or for their role in the political and social movements of the time or because they were pioneers in their local communities. Upper Canada newspapers boasting a continuous existence (some with name changes) right down to the present day are the *Kingston Gazette*, established by Stephen Miles in 1810, the *Brockville Recorder* (Chauncey Beach, 1820), the *Christian Guardian* (Egerton Ryerson, 1829), the *Belleville Intelligencer* (George Benjamin, 1834), the *Bytown Packet* (William Harris, 1844), the *Toronto Globe* (George Brown, 1844), the *Hamilton Spectator* (Robert Smiley, 1846), and the *London Free Press* (William Sutherland, 1849). Of these the *Christian Guardian* has become *The United Church Observer*, the *Bytown Packet* is now the *Ottawa Citizen*, and the *Globe* is now the *Globe and Mail*. Two other papers important in their day were the *Colonial Advocate* (1824-1834, William Lyon Mackenzie, founder and editor) and the *Toronto Leader* (1852-1878, James Beaty).

A significant Lower Canada paper still publishing is *Le Courrier de St. Hyacinthe* (J. P. Guité and A. De Grandpré, 1853). The *Montreal Herald* (founded by William Gray, 1811) was absorbed by the *Montreal Star* in 1957. *La Minerve*, founded by Ludger Duvernay in 1826, lasted until 1899, and the *Irish Vindicator* (Dr. Daniel Tracey, 1828) perished in 1837. In Nova Scotia the *Novascotian* (George Young, 1824) disappeared as a separate entity in 1926 when it became part of the still flourishing *Chronicle-Herald* of Halifax, while the *Yarmouth Herald* (Alexander Lawson, 1833) has retained both its name and identity. The *Acadian Recorder* (Anthony Holland, 1813) went out of existence in 1930. The New Brunswick paper, the *Saint John Courier* (Henry Chubb, 1811) lasted until 1865. The Charlottetown *Examiner* (Edward Whelan, 1847) ceased publishing in 1922. The *Times and General Commercial Gazette* (J. W. McCoubrey, 1832) flourished in St. John's, Newfoundland, until 1895.

THE GROWTH OF THE PRIVATE ENTERPRISE PRESS

The journalism of 1807 to 1858 differed from that of the earlier era not only in numbers but also from the standpoint of newspaper tone and subject matter. Contributing to the latter was the appearance of a new kind of editor. He was the *entrepreneur* who established a press independent of the revenue from government business. Unlike his predecessor, he made money chiefly by printing advertisements and selling his papers to a gradually widening circle of readers. With this shift from government patronage, he became increasingly self-sufficient and was no longer afraid to involve his newspaper in the major issues of the day. His coverage of local news was still pitifully weak by modern standards, but he more than made up for it by his forthright editorial comment on contentious social and political issues.

NEWSPAPER CONTENT AND STYLE

The subject to which the new-style editor gave most sustained attention was the 'Responsible Government' issue. The seeds of the struggle which led to the ultimate achievement of the important constitutional principle in 1849, were contained, for the Canadas at least, in the granting of Representative Government by the Constitutional Act of 1791. For Lower Canada the concession was a gift unwanted and unasked. The French Canadians were more interested in the preservation of their language, laws and customs than in the questionable advantages of an unfamiliar parliamentary device. They used the new representation in the newly created Assembly to fight for their racial and religious aspirations. In the process they tried to get control of the public purse strings as a means of achieving their ends, and insisted on such concessions as an elected upper house and legislative appointment of judges. In the struggle over these issues there grew up a bitter enmity between the Assembly and the Governor sent out from England. In Upper Canada the battle waged by the Assembly and the people was against the nepotism and privilege of the Family Compact and the inequities of the Clergy Reserves. In the Maritimes, despite traditions of moderation and harmony, there was a similar fight waged against those in power. Out of the conflicts in all three regions came the mature and useful Responsible Government concept so important in the Canadian political system. At the beginning of the movement it is probable that no one, including newspaper editors, could foresee the constitutional consequences of their long fight. It was only very late in the story that even the most enlightened leaders saw the full shape of their achievements.

In the day-to-day campaigning, however, the press played a prominent part. First newspaper participation came just as soon as the lines of political battle were drawn, right after the turn of the nineteenth century. The increasingly bitter rivalry between the *Mercury* and *Le Canadien* in Lower Canada after 1806, the spirited anti-government strictures of Joseph Willcocks' *Upper Canada Guardian* or *Freeman's Journal* which began in Upper Canada in 1807, and the vigorous criticisms of the 'Little Compact' which Anthony Henry Holland in the Maritimes carried in the *Acadian Recorder* from 1813 on launched a long press consideration of the gradually evolving constitutional device. It was a matter that was to feed the fires of general newspaper debate until at least 1849 in five provinces, and was to receive attention from the Newfoundland press as late as 1855.

It was during this development that individual newspapers came to be labelled according to the political stands they took. As those who were debating the Responsible Government issue became increasingly doctrinaire in their views, the majority of the important journals came to be known either as Reform or anti-Reform. Vigorous Reform papers included *Le Canadien*, *La Minerve*, *Irish Vindicator*, *Liberal*, *Colonial Advocate*, *Hamilton Free Press*, *St. Thomas Liberal*, *Colonial Patriot*, *Pictou Chronicle*, *Yarmouth Herald*, *Saint John Courier*, *Head Quarters*, *Prince Edward Island Register*, *Palladium*, and *Newfoundland Patriot*. Supporters of the Tory cause had among their number the *Quebec Mercury*, *Montreal Gazette*, *York Patriot*, *Courier of Upper Canada*, *Kingston Herald*, *Montreal Herald*, *Toronto Mirror*, *Pictou Observer*, *Cross and Olive Branch*, *Christian Messenger*, *Halifax Times*, *Saint John Herald*, *Loyalist and Conservative Advocate*, and *Islander*. Newspapers which avoided the extremes of both the fiery radical and ultra-conservative viewpoint and which might be designated as 'moderate Reform' were well

represented by the *Quebec Gazette* (when it was edited by John Neilson), *Christian Guardian*, Toronto *Examiner* and Montreal *Pilot*. Since it was nearly impossible to divorce politics from the conduct of a newspaper at this time, editors were usually politicians, and politicians were usually editors as well. Thus such important figures of Canadian history as Edward Whelan, Joseph Howe, James Haszard, Etienne Parent, Ludger Duvernay, Dr. Daniel Tracey, William Lyon Mackenzie and Francis Hincks were representatives of both spheres of the country's life.

Political discussion did not make up the entire newspaper content during this period. Some new features appeared. As communities became a little too large for word-of-mouth coverage, local news began slowly to occupy a somewhat larger place in the press. This was not reported in the objective fashion of the modern news story—even accounts of fires, drownings and other disasters were heavily interlarded with opinion and comment. Local items were often displaced by foreign exchanges which were frequently high in human interest value but usually of little consequence to the reader. Long abstracts from literary classics and near-classics still occupied a large part of newspaper space. But these began to share position with features of more practical interest and usefulness to British North Americans, such as the letters of *Agricola* and *Mephobosheth Stepsure* in the Maritimes. Newspaper reporting of Parliament as we know it today had its beginnings during this period. Advertising gained in prominence and importance. At this time advertisers began to get away from mere announcements of their products, and started to make extravagant claims for items they had to sell. This was particularly true of patent medicines, described in terms that can only seem highly offensive to persons living in the present-day society of Drug and Pure Food Acts and of Better Business Bureaux.

Make-up changes were extremely gradual during this period. The innovations made by James Gordon Bennett Sr. in his *New York Herald* had at this time small influence on the British colonies to the north. The occasional exclamatory bold-face headline-effusions of such men as Mackenzie were motivated by political passion rather than a purely commercial desire to catch the eye of the potential reader. In style and tone, editors wrote copy with an elegance and classical scholarship rarely found today. At the same time the nineteenth century editor was guilty of circumlocutions, discursiveness and, on occasion, pretentiousness. The inverted-pyramid construction of the modern news story was unknown to him. An accompaniment of his subjective news-treatment was his bitter and vituperative attacks on political foes and other persons with whom he disagreed. Invective, diatribe and billingsgate became the measure of the political hot temper of British North American constitutional debate of the period, and the newspapers reflected the spirit of the day. Such press outspokenness was not inconsistent with governmental restrictions which were imposed upon newspaper freedom up to at least the middle of the 1807-to-1858 period: the fact was that while they were most severely curbed in their attempts to discuss the behaviour of those in authority, journalists were usually allowed, for the most part by their victims' defaulting of the issue, the utmost freedom in their treatment of private individuals.

GAINS IN PRESS FREEDOM

The struggle for Responsible Government and the new spirit of vigorous independence which animated the journalism of the second period had important consequences in terms of freedom of the press. Editors became daring enough to challenge the authority of officials to dictate absolutely what newspapers might or might not publish. Since those in power were unwilling to give up easily their legal right to censor the press, innumerable clashes between editors and the authorities took place. In the beginning the consequences were pretty disastrous to the journalists. Pierre Bédard, François Blanchet, Ludger Duvernay, Jocelyn Waller, Dr. Daniel Tracey, Bartimus Ferguson, Richard Cockrel, James Durand, Francis Collins, William Lyon Mackenzie, William Wilkie, Anthony Holland, James Haszard, John Hooper, Dr. Edward Barker, Henry Winton, and R. J. Parsons all suffered because of the outspoken stands they took on questions of public interest. Their story is a monotonous repetition of government victory and newspaper defeat.

Despite the predictability of result of such contests, however, there were important gains in terms of press liberty. For one thing, the authorities were finding, to their cost, that it did not pay to martyrize their newspaper enemies. They discovered that their harsh treatment of such men as Ferguson and Collins aroused bitter opposition to their rule, so that they were much more reluctant to punish Mackenzie when he levelled his strictures against their arbitrary acts. Of more critical importance still was Howe's momentous legal victory in a libel trial in Halifax in 1835. The court battle was precipitated by a letter of scathing criticism of the magistracy of the seaport centre which had appeared in Howe's newspaper, the *Novascotian*. Unlike John Peter Zenger in New York a hundred years before, Howe found no lawyers willing to represent him at his trial, so he undertook his own defence. Through his brilliant eloquence rather than his legal skill, he won a resounding victory. It was as significant in Canadian, if not in international, terms as such English precedents as the publication of Milton's *Areopagitica*, the triumph of John Wilkes, the *Letters of Junius*, the victories of Crosby and Oliver, and the ultimate vindication of Cobbett, Wooler, Hone and Carlie.

At the same time the Howe trial was no more consequential to the liberty of the press than were the achievements made in other British North American areas. As with England in an earlier age, many press-freedom victories were won in the political and religious arena. As the citizen of the new land gained the right to believe as he wished about God and about political matters, and as the granting of Responsible Government introduced a new climate of intellectual tolerance, journalism lost many of its shackles. Thus, topics that had been forbidden before were made proper subjects of free debate, and newspaper freedom increased accordingly.

MECHANICAL CHANGES IN THE PRESS

There were several improvements in newspaper production by 1858. The gradual clearing of the forests and the building of roads made news-gathering somewhat easier and faster. The introduction of the magnetic telegraph into the Canadas in 1846 and into the Maritimes in 1849 made it possible for journalists to take advantage of the speed-up of communications brought about by the conversion of ocean-going vessels from sail to steam after 1838. The full effect of new invention was not felt, however, until the third press period. The printing of newspapers gained from the change from wood to iron presses and from the increasing use of power presses after 1840. Another impetus was given by the first manufacture of paper in the Canadas in 1830, but the entire mechanical operation was greatly retarded by the time-consuming handsetting of type which continued to be the method used. What inventions were introduced had the effect of increasing the costs of newspaper equipment and hence of newspapers. Thus it required five annual payments of £210 each to purchase the *Novascotian* in the middle of the period.

The same development that accelerated news-gathering also aided newspaper distribution. In addition to better transportation and communication, a slow increase in literacy enlarged potential readership. At the same time two factors caused difficulties for the editor. High mailing costs made news-organs more expensive and restricted circulations. Then, too, the failure of editors to require payment for subscriptions in advance left uncollected and uncollectable debts owing to them that were often ruinous. Circulations of newspapers continued to be small. The *Novascotian*, which was a leader in its field, was considered to be doing very well when its subscribers reached 1,500.

Despite the introduction of the telegraph, the weekly news-organ was still more important than the daily. In 1833 the Montreal *Daily Advertiser* became the first paper of that frequency in British North America, but it was unusual for its time. It was not until 1849 that the first successful daily began to publish in Canada West, and not until the third press period that the daily newspaper began to surpass the weekly in importance.

THE MAGAZINE PRESS

During the second journalism period the magazine press was considerably more active than during the earlier era. For all that, the periodicals that were established found survival a struggle. Every single publication founded during the first half of the nineteenth century perished after a greater or lesser tenure of life. It was only the constant appearance of new magazines that gave any kind of continuity to this form of journalism. What further weakened any contribution such publications may have made to Canadian life and letters was that much of their content was made up of borrowings from British and American writers, while Canadian writing was usually imitative, derivative, and of inferior literary merit.

Among the most important magazines to appear at this period were: *The Acadian Magazine* (1826-1828, J. S. Cunnebell); *Halifax Monthly Magazine* (1830-1833, J. S. Cunnebell); *The British North American Wesleyan Magazine* (1840-1844 and 1846-1847, James Hogg); *The Amaranth* (1841-1843, Robert Shives); *The Provincial Or Halifax Monthly Magazine* (1852-1853, Mrs. William Lawson); *Literary Garland* (1838-1851, John Gibson); *Anglo-American Magazine* (1852-1855, Rev. R. J. McGeorge); *Canadian Journal* (1852-1878, Henry Youle Hind); *la Bibliothèque Canadienne* (1825-1830, Michel Bibaud); *le Magasin du Bas-Canada* (1832, Michel Bibaud); *l'Observateur* (1830, Michel Bibaud); *l'Encyclopédie Canadienne* (1842-1843, Michel Bibaud); *la Ruche littéraire et politique* (1853-1859, H. E. Chevalier).

THIRD PERIOD: SPREADING GROWTH, 1858 TO (CIRCA) 1900

Canada's third press period may be taken to have lasted from 1858 to about the end of the nineteenth century. What particularly distinguished this newspaper era from its predecessor was a movement of journalism westward. The growth, which had sunk its roots deep into the eastern soil during the second press age, spread in the wake of settlement, beyond the Great Lakes to the prairies and the Pacific Coast area. It was a new time of journalistic pioneering.

The arrival of the settler in the western provinces and northern territories made possible the introduction of the press into the Pacific Coast region and the prairies. What is today British Columbia was a land of fur-traders and explorers until the discovery of gold on the Fraser and Thompson Rivers in 1856 started an influx of settlers that was in full tide by 1858. By that time an estimated 25,000 persons had arrived from California, Oregon, Washington, Utah and other western States, as well as from Hawaii, and Central and South America. These people were largely funnelled through Esquimalt and Victoria, which suddenly became centres capable of supporting a press. Then, as more gold discoveries lured the prospector farther inland along the river valleys, conditions became propitious for the spread of journalism into the interior.

What made Manitoba ready for the new development was the ending of its long isolation from the older portions of British North America. This change of affairs was brought about by several circumstances. Fear of United States domination of the Selkirk colony, heightened by the arrival of a detachment of the American army in Pembina in 1857, caused Canada to send a body of troops to the region soon afterwards. Expeditions by Capt. John Palliser, James Ross and Prof. H. Y. Hind, and the writings of George Brown in the *Globe* and William McDougall in the *North American* aroused interest in the new settlement. When the *Anson Northrup* navigated the Red River to Fort Garry in 1859 the Mississippi steamboat system was extended to Rupert's Land, and when a short time later the railway reached St. Paul, the isolation was broken, and newspapermen were able to start operations.

Saskatchewan and Alberta waited for the inrush of settlers into the empty prairies in the late 1870's and 1880's before press activity began. The Homestead Act of 1872 and the establishment of the North West Council to govern the Territories in the same year; the arrival of the Canadian Pacific Railway in Calgary in 1883; development of wheat varieties more suitable to the growing conditions of the prairies; discovery of the advantages of such

better dry farming practices as deep seeding and summerfallowing; and the introduction of many greatly improved agricultural implements were some of the factors which contributed to the population growth which made prairie journalism possible.

The story of newspaper pioneering in the Canadian North was a repetition of the British Columbia experience, delayed by forty years. Gold was discovered in the Klondike in 1896 and, in consequence, 40,000 newcomers entered the new land during the eighteen months prior to 1900. The resulting establishment of such centres as Dawson City, which had a population of 20,000 in 1899, provided the conditions needed to support a viable press.

PIONEER NEWSPAPERS OF THE WEST

Of Canada's four future western provinces the first to acquire a news-organ was British Columbia. The start was made in Victoria in 1858 when H. C. Williston and Columbus Bartlett founded the *Victoria Gazette*. William Buckingham and William Coldwell launched journalism in Manitoba when they began the *Nor'-Wester* in 1859. Patrick Gammie Laurie's *Saskatchewan Herald* began to serve the town of Battleford in 1878 and so became the Saskatchewan pioneer. The Province of Alberta gained its first newspaper in 1880 when Frank Oliver established the *Edmonton Bulletin*. In the two latter cases, of course, the appearance of the news-organ preceded the formation of the province by many years. Almost equal claim to the title of Yukon pioneer was established in 1898 by two papers to appear in Dawson City. These were the *Klondike Nugget*, owned and edited by George M. Allen, and the *Midnight Sun*, first owned and edited by G. B. Swineheart.

As might be expected, the early northern and western newspapers were at first published under conditions as primitive and precarious as those attending the introduction of the press to British North America between 1752 and 1807. Buckingham and Coldwell hauled their equipment 500 miles from St. Paul to Winnipeg, signed up an Indian Chief named "Hole-In-The-Day" as their first subscriber, and had to thaw out frozen equipment before they began their printing operations. To carry journalism deep into British Columbia, newsmen had to drag their equipment along the rocky banks of precipitous rivers. It is little wonder that one newspaper sold for a dollar a copy. Patrick Gammie Laurie's pioneer venture involved a wagon journey that took him across rivers that did not boast a single ford or ferry. Frank Oliver paid only four dollars for what was really just a toy hand press, used the gift of type and other supplies from his friends on the *Manitoba Free Press*, and so spent only \$21 to get his newspaper started. Lacking other power for their cumbersome drum-cylinder press, the printers of the first paper in Macleod hired a dozen Indian braves to operate their unwieldy equipment in what was a colourful if back-breaking operation.

IMPORTANT NEWSPAPERS OF THE PERIOD

A great many important and successful newspapers appeared during the third press period. They shared the field with such well-established journals surviving from an earlier day as the *Montreal Gazette*, (which was served by such journalists as Thomas, Richard and Robert Smeaton White), *Quebec Gazette* (Frank Carrel), *Montreal Herald* (Edward Goff Penny, James Brierley) and *Toronto Globe* (Gordon Brown, John Cameron, Sir John S. Willison, E. W. Thomson, Edward Farrer, J. A. Ewan), *Hamilton Spectator* (William Southam Sr.), *London Free Press* (Josiah Blackburn), *Brantford Expositor* (T. H. Preston), *Belleville Intelligencer* (Mackenzie Bowell) and *Halifax Chronicle* (William Annand, W. S. Fielding). Newspapers which started life between 1858 and 1900 and which still exist or which entered the life-stream of journals which still publish include: *Mail* (1872, T. C. Patteson, Kit Coleman), *Empire* (1887, Louis P. Kribs), *Toronto Telegram* (1876, John Ross Robertson, John "Black Jack" Robinson), *Toronto Star* (1892, Joseph E. Atkinson), *Ottawa Journal* (1885, P. D. Ross), *St. Catharines Standard* (1891), *Kitchener-Waterloo Record* (1878), *Oshawa Times-Gazette* (1871), *Montreal Star* (1869, Hugh Graham, later Lord Atholstan), *La Patrie* (1879, Honoré Beaugrand, P. M. Sauvalle, Israel Larter), *La Presse* (1884, Trefflé Berthiaume, J. A. N. Provencher, C. A. Dansereau), *L'Événement* (1867, Hector Fabre), *Halifax Herald* (1875, William Dennis, J. J. Stewart), *Halifax Star*

(1873), *Halifax Mail* (1878), *Fredericton Gleaner* (1880), *Saint John Globe* (1858), *Saint John Times* (1868), *Saint John Telegraph* (1862, John Livingstone, J. E. B. McCready, Charles H. Lugin, James Hannay), *Saint John Journal* (1865, William Elder), *Moncton Transcript* (1882, James Hannay, John T. Hawke), *Moncton Times* (1868), Weymouth, later Moncton *L'Evangeline* (1887, Valentine Landry), *Charlottetown Patriot* (1857, David Laird), *Charlottetown Guardian of the Gulf* (established as *Presbyterian Union* in the 1870's, Rev. S. G. Lawson, W. L. Cotton), *St. John's Telegram* (1879, W. J. Herder, T. D. Carew, P. K. Devine), *St. John's Daily News* (1894, Dr. J. A. Robinson, H. Y. Mott), *Victoria Colonist* (1858, Amor de Cosmos), *Victoria Times* (1881), *Nanaimo Free Press* (1874), *New Westminster British Columbian* (1860, John Robson), *Vancouver Sun* (1886), *Vancouver Province* (1894, W. C. Nichol), *Manitoba Free Press* (1872, W. F. Luxton, J. A. Kenny), *Winnipeg Tribune* (1890, R. L. Richardson), *Brandon Sun* (1882), *Calgary Herald* (1883, T. B. Braden, A. M. Armour, H. S. Cayley), *Medicine Hat News* (began in 1885 as the *Times* by Braden and Armour), *Regina Leader-Post* (1883, N. F. Davin), *Moose Jaw Times* (1889, J. N. Macdonald) and *Prince Albert Herald* (1896). Some journalists who served on papers which are mentioned in an earlier section of this article as having lasted right through the third period only to perish during the fourth were J. P. Tardivel, Ernest Myrand and J. E. Cauchon of *Le Canadien*, H. W. Blackadar Jr. and Sr., and C. C. Blackadar of the *Acadian Recorder*, and Honoré Mercier of *Le Courrier de St. Hyacinthe*. Napoleon Aubin and L. L. Viger served on *Le Pays*, a paper which also originated in an earlier day and which is now extinct. Joseph Tassé and Oscar Dunn were connected with *La Minerve*, previously mentioned, and M. A. Plamondon served on *Le National* (1855-1878), J. B. E. Dorion on *Le Défricheur* (1862-1867) and E. T. Sanders and C. E. D. Wood on the *Fort Macleod Gazette* (1882-1908).

NUMERICAL INCREASE

During the third press period, the press of Western Canada was achieving much the same kind of development that the journalism of Eastern Canada had accomplished during its pioneering stages. At the same time, the newspapers in the older part of the country were making good progress on their own account. The following table shows the increase in numbers during the period.

NUMBERS OF PERIODICALS IN BRITISH NORTH AMERICA, 1857-1900

NOTE.—Includes territory of present-day Canada.

| Periodical | 1857 | 1864 | 1874 | 1881 | 1891 | 1895 | 1900 |
|-------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|--------------------|
| | No. | No. | No. | No. | No. | No. | No. |
| Dailies..... | .. | 23 | 46 | 61 | 91 | .. | 121 |
| Tri-weeklies..... | .. | 27 | .. | 11 | 7 | .. | 6 |
| Semi-weeklies..... | .. | 16 | .. | 22 | 17 | .. | 48 |
| Weeklies..... | .. | 226 | 330 | 413 | 580 | .. | 804 |
| Tri-monthlies..... | .. | .. | .. | .. | .. | .. | 1 |
| Bi-weeklies and semi-monthlies..... | .. | 6 | .. | 10 | 20 | .. | 36 |
| Every 3rd weeklies..... | .. | .. | .. | .. | .. | .. | 1 |
| Monthlies..... | .. | 27 | 41 | 58 | 119 | .. | 202 |
| Bi-monthlies..... | .. | .. | .. | 2 | 1 | .. | 2 |
| Quarterlies..... | .. | .. | .. | 2 | 2 | .. | 5 |
| TOTALS..... | 291 ¹ | 298 ² | 470 ³ | 579 ⁴ | 837 ⁴ | 916 ⁵ | 1,226 ⁶ |

¹ *Canadian Newspaper Directory, 1892*. A. McKim and Co., Toronto, 1892, p. 58. (Only the total for all publications is given in this article.)

² *Canadian Newspaper Directory, 1892*. A. McKim and Co., Toronto, 1892, p. 59. (The sum of the various papers does not agree with the total in the second column because the different editions of the same paper were not counted as separates.)

³ *Canadian Newspaper Directory, 1892*. A. McKim and Co., Toronto, 1892, p. 59. (The tri-weeklies, semi-weeklies and semi-monthlies are omitted from this table, but all are included in the totals.)

⁴ *Canadian Newspaper Directory, 1892*. A. McKim and Co., Toronto, 1892, p. 59. ⁵ J. Castelli Hopkins, *Canada, An Encyclopedia of the Country, Volume V*, Linscott Publishing Company, Toronto, 1890, p. 190. (No classification of the numbers of various publications is given in the source article.)

⁶ *Directory of Canadian Newspapers, 1900*. A. McKim and Co., Toronto, 1900, p. 12.

NEWSPAPER CONTENT AND STYLE

The subject matter of Canadian journalism in the last half of the nineteenth century was largely determined by the events and issues of the day. Although domestic political developments continued to occupy a significant share of newspaper attention, discussion of the Responsible Government question was replaced in turn by a consideration of Confederation, the Washington Treaty, the Pacific Scandal, the building of the Canadian Pacific Railway, the two Riel Rebellions and the Manitoba School question. In addition, particularly towards the end of the period, the press gave more attention to questions of international concern. The papers had always carried foreign news, but formerly the coverage had been that of the remote observer, and the newer reports gave a sense that readers were participants in world affairs. This change was partly caused by the fact that, with speedier news-gathering methods, foreign items no longer appeared as ancient history, and partly because increasing Canadian autonomy indicated that Canada was preparing for greater international activity. The interest and involvement of Canada in such matters as the South African War, the Alaska boundary dispute and conferences on pelagic sealing, for example, are readily understandable, but citizens of the new country showed themselves to be interested observers of such events as the Dreyfus trial—a fact which Canadian newspaper reporting amply demonstrated.

During the 1858-to-1900 period newspaper reports became freer of the editorial opinion that had marked their earlier counterpart, but the news-story still lacked the format of the twentieth century prototype. Editorial comment, now somewhat more closely confined to the editorial page, was still characterized by the vitriolic abusiveness that had disgraced earlier newspapers. A comparable blot on newspaper records was the practice of writing careless libel, of writing matter which would bring convictions for contempt of court today, and of commenting freely on questions which now would be classified as *sub judice*. Advertising, particularly of patent medicines, continued to be irresponsible, such matter being shamelessly disguised as news accounts with extravagant claims being made for the curative and life-saving powers of the items sold. On occasion, such deadly articles as devices to procure abortion were offered openly in the press.

While very few new *kinds* of stories appeared in the late Victorian press, there was a growing tendency to departmentalize the news. A cautious use of bolder headlines was made, but eight-column, 72-point and larger banners were still rare. Label heads continued to appear fairly frequently, but the more exciting stories began to carry several decks after the fashion of the *New York Herald*. These gained variety through inverted pyramid and hanging indent arrangements.

Pictures, mainly line drawings, began to make their first modest appearance in the daily and weekly press. On June 3, 1871, the *Canadian Illustrated News* carried a photograph of Montreal's new Custom House. According to the *Montreal Gazette* of Oct. 13, 1956, this was the "first time that a photograph had been successfully transmitted to the printed page." However, it was not until Max Levy of Philadelphia developed the cross-ruled screen in 1886 that a really successful method of reproducing photographs in newspapers was achieved. In Canada the *Dominion Illustrated* introduced a practical form of the half-tone illustration in 1888, but the possibilities of the new device were little realized by the end of the century.

MECHANICAL CHANGES IN THE PRESS

Many mechanical improvements in the press occurred during the 1858-to-1900 period. These included the introduction of wood pulp manufacture into Canada in 1866, the first adoption of electrically driven rotary power presses after 1890, and the use of better folder attachments and improved inks. But perhaps the most revolutionary invention of all was Mergenthaler's linotype, first demonstrated in the *New York Tribune* in 1886, and available in improved form in 1889. This was to find increasing Canadian use from the 1890's onward. It was these inventions primarily that caused the dramatic transformation of the press which characterized Canada's fourth journalistic period.

THE DAILY NEWSPAPER

Such inventions of the second press period as the magnetic telegraph began to produce results during the third. These improvements contributed greatly to the growing "day-to-dayness" of the newspapers of the new Dominion, and accounted in no small measure for the growing sense of nearness of distant events previously referred to. The daily paper increasingly dominated the newspaper field. Whereas there had been 20 daily newspapers in Upper and Lower Canada in 1857, the provinces that entered Confederation in 1867 had 46 dailies in 1874, 61 in 1881, 91 in 1891, and 121 in 1900. It should not be inferred from the relative increase in importance of the daily that, in absolute terms, the weekly was declining. The table on p. 930 shows otherwise. Moreover, the weekly had not completely abdicated the national and international news field in favour of the daily newspaper to become the community press as it was largely to do by the mid-twentieth century. The continuing interest of the weekly in matters of larger than regional concern was particularly evident in the press of Western Canada.

The increase in daily newspaper numbers conveys the magnitude of the change occurring only when considered in conjunction with the accompanying circulation growth, and also with the fact that a daily is issued six times as often as a weekly. In 1900, daily newspapers had 570,000 subscribers. *La Presse* led the field with a circulation of 66,500, the *Montreal Star* following with 50,312, the *Toronto News* had 43,635 and the *Toronto Globe*, 36,000. It should be noted that technological change was not the only factor contributing to this rise of newspaper circulations. More advantageous postal rates, a larger population and a continuous growth of literacy had their effects as well.

Another consequence of improved press equipment was a rise in press costs. Thus, in 1883, the *Regina Leader*, not Canada's largest newspaper by any means, was established with a capital of \$20,000. Nor was the *Vancouver Province* the richest journal in Canada in 1899 when it had a capitalization of \$100,000. Such enterprises as these required larger staffs than their 1856 predecessors. In place of the publisher-printer-editor factotum who had issued his news-sheet in 1837 Rebellion days, 86 persons were employed on the *News-Advertiser*, *World*, and *Telegram* in Vancouver in 1892. In 1899, the *Vancouver Province* was produced by an editor, a subscription manager, city editor, advertising manager, three reporters, an accountant, two clerks, a composing-room foreman, six compositors, a pressroom foreman and two stereotypers. *La Presse*, having a circulation thirteen times as great, obviously required a larger staff.

PRESS ORGANIZATIONS

A new element of the newspaper story during the period was the beginning of press associations. The most important of these was the Canadian Press Association, which was started in 1859. It was in no sense a closely knit professional body, but rather a loose confraternity of journalists whose main interests were social and occupational rather than business. It had as lesser counterparts the Province of Quebec Press Association, founded in 1876; Eastern Ontario Press Association, 1879; Presse Associée de la Province de Québec, 1882; Eastern Townships Press Association, 1889; Western Canada Press Association, and the Ottawa Valley Press Association.

GAINS IN PRESS FREEDOM

The third press period brought important gains in newspaper freedom. Whereas earlier progress had been accomplished through court trials and a widening tolerance in related fields, the new advances were achieved through new legislation. The advantage gained was twofold: in the first place, the new laws granted certain concessions not previously permitted under common law practice; secondly, by defining what a newspaper was and by making more explicit what did and what did not constitute defamation in the press, these enactments permitted editors to see more clearly what publishing ground was safe and what was dangerous. The areas of greatest gain were in the definition of defences open against libel charges and a spelling out of the types of report which were to be privileged in the press.

The new legislation was based on Fox's Libel Act of 1792, Lord Campbell's Act of 1843, the Newspaper Libel and Registration Act of 1881, and the Law of Libel Amendment Act, 1888, all of them British legislation. Criminal law in the matter was enacted for Canada in 1892. This had, of course, a uniform, nation-wide application since the Criminal Code is an enactment of the Federal Parliament. Civil law differs from province to province, with Quebec legislation, based as it is on the Napoleonic Code, showing the widest divergence from the general pattern. Prince Edward Island, which continued to rely largely on common law practice, got its Libel Act in 1865; this was overhauled by the Statutes of Prince Edward Island of 1889. In 1892 the Criminal Code of Canada repeated those sections of the Act which dealt with criminal law. Ontario was served by an Act of 1882 which was superseded by provisions of the Revised Statutes of 1897. Since certain parts of the 1887 legislation dealing with provincial elections had reference to defamation, these provisions were also incorporated into the 1897 revision. Quebec had no libel Act, but Sections 2924 to 2938 of the Revised Statutes of 1888 laid down provisions under which newspapers might publish. Newfoundland's legislation on the question was provided by the Consolidated Statutes of 1892, and covered both criminal and civil law. The Revised Statutes of British Columbia of 1897 furnished that Province with its Libel and Slander Act. Nova Scotia's legislation came in 1900, while that of Manitoba, which had both a Libel Act and a Newspaper Act, was passed in 1902, and that of New Brunswick in 1903 as one of the Consolidated Statutes. Since Saskatchewan and Alberta were not made provinces until 1905, their newspapers did not become subject to provincial laws until after that date.

THE MAGAZINE PRESS

The magazine press exhibited the same kind of discontinuity during the third journalism period that had characterized the periodical publications during the second. Without the same fecundity that marked newspaper journalism, magazines made a weaker showing in the new country, particularly because so many of the monthly, and even less frequently published ventures, were so short-lived. It is to their credit that there were still many publishing entrepreneurs who refused to be discouraged by the examples of failure set, with monotonous regularity, by their predecessors. An impetus to the growth of Canadian magazine production was provided by the achievement of Confederation in 1867, more particularly in English Canada, where there was a greater need than in French Canada for such a unifying event to give a sense of national identity to the literary contributors to such publications.

The more prominent magazines that came into being during this journalistic era (with their first editors or publishers and dates) included the *British American Magazine* (1863-1864, H. Y. Hind), *Stewart's Quarterly* (1867-1872, Dr. George Stewart), *Maritime Monthly* [1873- (circa) 1876, H. L. Spencer, Rev. James Bennet], *New Dominion Monthly* (1867-1879, John Dougal), *Grip* (1873-1894, J. W. Bengough), *Saturday Night* (1887- present, E. E. Shepherd), *Canadian Magazine* (1893-1939, J. Gordon Mowat), *Canadian Monthly and National Review* (1872-1882, G. Mercer Adam), *Week* (1883-1896, Goldwin Smith, Charles G. D. Roberts), *Bystander* (1880-1882, 1890-1891, Goldwin Smith), *Les Soirées Canadiennes* (1861-1865, H. R. Casgrain, A. Gérin-Lajoie, J. C. Taché, Dr. Hubert La Rue), *Le Foyer Canadien* (1863-1866, H. R. Casgrain, A. Gérin-Lajoie, J. C. Taché, Dr. Hubert La Rue), *La Revue Canadienne* (1864-1873), *L'Echo de la France* (1865-1869, L. Ricard), *La Revue de Montréal* (1877-1881, T. A. Chandonnet), *Le Canada Français* (1888-1891, T. E. Hamel), *Le Chercheur* (1888-1890, M. J. F. Dumontier), *La Revue Nationale* (1895-1897, J. D. Chartrand), *Le Courrier du Livre* (1896-1901, R. Renault), *Nation* (1874-1876, Goldwin Smith), *Nova Scotia Illustrated* (1895, J. H. Bradford), *Lake Magazine* (1892-1893, D. K. Mason), *Massey's Magazine* (1896-1897), *New Brunswick Magazine* (1898-1905, W. K. Reynolds), and *Prince Edward Island Magazine* (1899-1905, Archibald Irwin).

The development of the journalism of Canada is a continuing story—a story of accelerating growth. Evidence of its constant progress is to be seen in the facts of increased circulation, wider readership, greater frequencies, extended areas of news coverage, speedier news-gathering services, increasing press wordage and enlarged newspaper plants, as well as in the qualitative refinements and improvements of the “art preservative of the arts”. The press of Canada today is indeed the result of the impressive technological developments of the past fifty years. Nevertheless, it may be said to have received considerable shaping from its first 150 years of life.

CHAPTER XXI.—DOMESTIC TRADE

CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

PART I.—THE MOVEMENT AND MARKETING OF COMMODITIES

Domestic trade is broad and complicated; it encompasses all values added to commodities traded, provincially and interprovincially, by agencies and services connected with the storage, distribution and sale of goods, such as railways, steamships, warehouses, wholesale and retail stores, financial institutions, etc. Taken in a wide sense, it embraces various professional and personal services including those directed to the amusement of the people, such as theatres and sports. Only certain phases of this broad field are covered here and, wherever possible, cross references are given to related material appearing in other Chapters. The arrangement of material in a volume such as the Year Book is governed by the necessity of interpretation from various angles. The Index will be found useful in this respect.

Section 1.—Merchandising and Service Establishments*

Complete coverage of the business of wholesale and retail trades and of service establishments is attempted only as part of the decennial census. The first such detailed survey was taken in connection with the 1931 Census and related to business transacted during the calendar year 1930. Similar detailed records were again secured with the 1941 and 1951 Censuses. The results of the 1930 and 1941 Censuses of Merchandising and Service Establishments are contained in Vols. X and XI of the Census reports for those years and the results of the 1951 Census of Distribution in Vols. VII and VIII of the 1951 Census reports. Summary data for 1951 are given in the 1955 Year Book, pp. 953-977.

The information collected at the census is supplemented in intercensal years by monthly, quarterly and annual surveys on the more important phases of the retail, wholesale and service trades—sample surveys for some businesses and full coverage for others. The 1951 Census formed a new base for such surveys and certain improvements have been implemented for continuance during the 1951-61 intercensal period.

Current information available on the more important phases of the distributive trades is given in the following Subsections. Estimates for the years prior to 1951 have been revised in accordance with the census base.

Subsection 1.—Wholesale Trade

Wholesale Sales.—Estimated sales of wholesalers expanded from \$5,744,355,000 in 1951 to \$7,720,353,000 in 1956. These figures include only wholesalers proper, i.e., they exclude agents and brokers and manufacturers' sales branches. Sales estimates are subject to revision and have not been adjusted for price changes.

* Prepared in the Merchandising and Services Section of the Industry and Merchandising Division, Dominion Bureau of Statistics.

1.—Wholesale Sales by Kind of Business 1953-56

NOTE.—Includes only wholesalers proper, i.e., firms performing the function of buying merchandise on their own account for resale.

| Kind of Business | 1953 | 1954 | 1955 | 1956 |
|--|------------------|------------------|------------------|------------------|
| | \$'000 | \$'000 | \$'000 | \$'000 |
| Fresh fruits and vegetables..... | 202,027 | 211,145 | 217,540 | 233,446 |
| Groceries and food specialties..... | 944,999 | 1,036,220 | 1,139,659 | 1,246,104 |
| Meat and dairy products..... | 171,759 | 171,108 | 164,192 | 173,443 |
| Clothing and furnishings..... | 88,907 | 80,944 | 86,469 | 89,531 |
| Footwear..... | 28,434 | 26,770 | 29,064 | 30,691 |
| Other textile and clothing accessories..... | 180,711 | 174,179 | 183,598 | 199,258 |
| Drugs and drug sundries..... | 147,695 | 153,124 | 165,974 | 178,409 |
| Household electrical appliances..... | 138,179 | 150,136 | 167,894 | 168,601 |
| Farm machinery..... | 71,247 | 52,084 | 60,590 | 72,726 |
| Coal and coke..... | 197,161 | 179,007 | 178,408 | 202,900 |
| Hardware..... | 268,808 | 260,809 | 283,522 | 313,417 |
| Construction materials and supplies, including lumber..... | 550,448 | 546,698 | 655,254 | 709,996 |
| Industrial and transportation equipment and supplies..... | 533,486 | 462,233 | 571,918 | 764,789 |
| Commercial, institutional and service equipment and supplies.. | 82,954 | 89,240 | 99,017 | 107,887 |
| Automotive parts and accessories..... | 269,308 | 262,035 | 352,323 | 386,436 |
| Newsprint, paper and paper products..... | 236,752 | 249,481 | 264,171 | 292,400 |
| Tobacco, confectionery and soft drinks..... | 504,556 | 498,537 | 509,840 | 562,413 |
| Other..... | 1,625,450 | 1,458,815 | 1,020,077 | 1,987,906 |
| Totals, All Trades..... | 6,242,912 | 6,062,566 | 6,749,510 | 7,720,353 |

WHOLESALE SALES BY SELECTED GROUPS OF BUSINESS,
1951, 1953 AND 1956



Operating Results of Wholesalers.—The fifth biennial survey of the operating results of wholesalers for certain trades shows operating expenses and profits in ratio to net sales for the year 1955. Individual trades are dealt with in detail in DBS Bulletins.

2.—Operating Results of Selected Wholesale Trades 1955

(Percentage of Net Sales)

| Kind of Business | Gross Profit | Selling Expense | Ware-house and Delivery Expense | Administrative and General Expense | Net Operating Profit | Net Non-trading Income | Net Profit before Income Tax |
|---|--------------|-----------------|---------------------------------|------------------------------------|----------------------|------------------------|------------------------------|
| Grocery..... | 7.20 | 1.37 | 2.25 | 3.20 | 0.38 | 0.56 | 0.94 |
| Fruits and vegetables..... | 11.50 | 1.96 | 4.92 | 3.99 | 0.63 | 0.07 | 0.70 |
| Tobacco and confectionery..... | 7.33 | 2.18 | 1.79 | 2.78 | 0.58 | 0.14 | 0.72 |
| Dry goods..... | 16.43 | 5.18 | 2.96 | 6.95 | 1.34 | 0.55 | 1.89 |
| Piece goods..... | 16.44 | 4.85 | 2.33 | 8.55 | 0.71 | 0.48 | 1.19 |
| Footwear..... | 16.40 | 4.45 | 2.85 | 7.22 | 1.88 | 0.51 | 2.39 |
| Automotive parts and accessories..... | 25.41 | 7.38 | 4.62 | 9.63 | 3.78 | 0.41 | 4.19 |
| Hardware..... | 19.17 | 4.57 | 3.29 | 7.30 | 4.01 | 0.04 | 4.05 |
| Plumbing and heating supplies..... | 16.37 | 3.47 | 2.96 | 6.97 | 2.97 | 0.01 | 2.98 |
| Drug..... | 8.71 | 0.82 | 3.27 | 4.40 | 0.22 | 0.11 | 0.33 |
| Household appliances and electrical supplies..... | 18.67 | 6.92 | 1.88 | 7.18 | 2.69 | 0.15 | 2.84 |

Subsection 2.—Retail Trade

The trend of retail trade is one of the best general indicators of the economic condition of the country. It is through retail stores that most goods are ultimately sold and such sales reflect the financial strength of the consumer except in times of short supply. The estimated value of retail sales increased five-fold during the 1930-56 period. These estimates, not adjusted for price changes, are shown by province in Table 3 and by kind of business in Table 4.

3.—Retail Trade by Province 1930-56

| Year | Atlantic Provinces ¹ | Quebec | Ontario | Manitoba | Saskat- chewan | Alberta | British Columbia ² | Canada ³ |
|-------------------------|------------------------------------|------------|------------|------------|-------------------|------------|----------------------------------|---------------------|
| | \$'000,000 | \$'000,000 | \$'000,000 | \$'000,000 | \$'000,000 | \$'000,000 | \$'000,000 | \$'000,000 |
| 1930..... | 197 | 646 | 1,091 | 188 | 188 | 175 | 251 | 2,736 |
| 1931..... | 172 | 558 | 945 | 153 | 133 | 134 | 210 | 2,305 |
| 1932..... | 140 | 462 | 783 | 131 | 112 | 115 | 165 | 1,908 |
| 1933..... | 129 | 419 | 735 | 121 | 103 | 109 | 157 | 1,773 |
| 1934..... | 147 | 454 | 833 | 131 | 115 | 125 | 179 | 1,984 |
| 1935..... | 157 | 473 | 875 | 139 | 124 | 137 | 200 | 2,105 |
| 1936..... | 170 | 518 | 941 | 150 | 138 | 147 | 225 | 2,289 |
| 1937..... | 199 | 605 | 1,068 | 165 | 136 | 165 | 255 | 2,593 |
| 1938..... | 188 | 598 | 1,026 | 164 | 136 | 177 | 240 | 2,530 |
| 1939..... | 196 | 602 | 1,039 | 166 | 154 | 180 | 242 | 2,578 |
| 1940..... | 235 | 683 | 1,191 | 182 | 174 | 198 | 273 | 2,935 |
| 1941..... | 279 | 820 | 1,388 | 193 | 189 | 228 | 318 | 3,415 |
| 1942..... | 301 | 876 | 1,447 | 206 | 201 | 243 | 346 | 3,619 |
| 1943..... | 319 | 913 | 1,488 | 220 | 219 | 266 | 362 | 3,786 |
| 1944..... | 351 | 976 | 1,574 | 243 | 249 | 296 | 404 | 4,093 |
| 1945..... | 387 | 1,081 | 1,774 | 269 | 279 | 329 | 455 | 4,573 |
| 1946..... | 491 | 1,342 | 2,265 | 338 | 341 | 416 | 593 | 5,787 |
| 1947..... | 564 | 1,621 | 2,721 | 407 | 410 | 504 | 737 | 6,963 |
| 1948..... | 607 | 1,792 | 3,067 | 466 | 473 | 611 | 818 | 7,835 |
| 1949..... | 734 | 1,872 | 3,294 | 523 | 538 | 697 | 874 | 8,532 |
| 1950..... | 822 | 2,183 | 3,715 | 567 | 571 | 777 | 982 | 9,617 |
| 1951..... | 899 | 2,443 | 4,130 | 610 | 659 | 854 | 1,100 | 10,693 |
| 1952..... | 982 | 2,635 | 4,383 | 651 | 764 | 939 | 1,177 | 11,532 |
| 1953..... | 1,018 ^r | 2,756 | 4,616 | 677 | 845 | 987 | 1,228 | 12,128 |
| 1954 ^r | 1,025 | 2,798 | 4,634 | 637 | 758 | 964 | 1,249 | 12,066 |
| 1955..... | 1,127 | 3,006 | 5,115 | 669 | 748 | 1,035 | 1,412 | 13,112 |
| 1956 ^p | 1,198 | 3,269 | 5,403 | 701 | 815 | 1,146 | 1,557 | 14,089 |

¹ Newfoundland included from 1949.

² Includes the Yukon and Northwest Territories.

³ Totals

are not the exact addition of the components because of rounding of the figures.

4.—Retail Trade by Kind of Business 1951 and 1951-56

| Kind of Business | 1951 | 1954 | 1955 | 1956 ^p |
|---|------------|------------|------------|-------------------|
| | \$'000,000 | \$'000,000 | \$'000,000 | \$'000,000 |
| Grocery and combination stores..... | 1,905 | 2,279 | 2,430 | 2,621 |
| Other food and beverage stores..... | 903 | 924 | 950 | 1,001 |
| General stores..... | 525 | 515 | 530 | 558 |
| Department stores..... | 910 | 1,062 | 1,150 | 1,242 |
| Variety stores..... | 196 | 234 | 250 | 275 |
| Motor vehicle dealers..... | 1,884 | 2,029 | 2,370 | 2,547 |
| Garages and filling stations..... | 479 | 632 | 718 | 757 |
| Men's clothing stores..... | 203 | 207 | 214 | 227 |
| Family clothing stores..... | 192 | 191 | 200 | 212 |
| Women's clothing stores..... | 193 | 221 | 225 | 243 |
| Shoe stores..... | 112 | 121 | 123 | 132 |
| Hardware stores..... | 228 | 247 | 256 | 274 |
| Lumber and building material dealers..... | 359 | 406 | 451 | 492 |

4.—Retail Trade by Kind of Business 1951 and 1954-56—concluded

| Kind of Business | 1951 | 1954 | 1955 | 1956 ^a |
|---|---------------|---------------|---------------|-------------------|
| | \$'000,000 | \$'000,000 | \$'000,000 | \$'000,000 |
| Furniture, appliance and radio dealers..... | 358 | 486 | 541 | 576 |
| Restaurants..... | 438 | 453 | 468 | 490 |
| Fuel dealers..... | 233 | 250 | 268 | 297 |
| Drug stores..... | 249 | 282 | 300 | 317 |
| Jewellery stores..... | 105 | 116 | 124 | 131 |
| Miscellaneous..... | 1,221 | 1,412 | 1,545 | 1,697 |
| Totals, All Trades..... | 10,693 | 12,066 | 13,112 | 14,089 |

Retail Chain Stores.—Retail chains are defined as companies operating four or more retail outlets in the same or related kinds of business. A consistent rise in sales has been evident since statistics were first compiled on chain store operations in 1930.

5.—Retail Chain Store Statistics 1930 and 1941-56

| Year | Stores | Net Retail Sales | Salaries and Wages Paid to Store Employees | Stocks on Hand End of Year | | Accounts Outstanding End of Year |
|-----------|---------|---------------------|---|-------------------------------|------------|---|
| | | | | Stores | Warehouses | |
| | Av. No. | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| 1930..... | 8,097 | 487,336 | 50,405 | 60,457 | .. | .. |
| 1941..... | 7,622 | 639,210 | 57,777 | 68,619 | 20,976 | 38,376 |
| 1942..... | 7,010 | 687,447 | 57,654 | 66,940 | 22,633 | .. |
| 1943..... | 6,780 | 703,950 | 58,804 | 67,628 | 22,802 | 15,527 |
| 1944..... | 6,560 | 769,643 | 63,300 | 66,944 | 21,855 | 15,093 |
| 1945..... | 6,580 | 876,209 | 68,196 | 68,247 | 29,013 | 16,368 |
| 1946..... | 6,559 | 1,014,847 | 77,474 | 85,345 | 37,436 | 19,643 |
| 1947..... | 6,716 | 1,177,323 | 91,266 | 105,040 | 43,546 | 31,492 |
| 1948..... | 6,821 | 1,335,735 | 107,450 | 119,132 | 46,330 | 40,378 |
| 1949..... | 6,839 | 1,420,081 | 115,903 | 123,696 | 46,755 | 50,001 |
| 1950..... | 7,155 | 1,559,693 | 129,334 | 159,083 | 60,501 | 65,000 |
| 1951..... | 7,846 | 1,775,744 | 153,599 | 186,562 | 60,490 | 53,816 |
| 1952..... | 7,766 | 1,924,873 | 154,642 | 172,886 | 55,215 | 77,475 |
| 1953..... | 7,835 | 2,048,228 | 171,167 | 179,704 | 52,096 | 91,538 |
| 1954..... | 8,136 | 2,146,635 | 181,509 | 191,049 | 57,814 | 102,747 |
| 1955..... | 8,274 | 2,353,955 | 199,611 | 205,833 | 63,120 | 127,362 |
| 1956..... | 8,559 | 2,647,055 | 221,136 | 232,392 | 72,183 | 143,357 |

6.—Retail Chain Store Sales by Province and by Kind of Business 1953-56

| Province | 1953 | 1954 | 1955 | 1956 |
|--------------------------------------|------------------|------------------|------------------|------------------|
| Province | \$'000 | \$'000 | \$'000 | \$'000 |
| Newfoundland..... | 14,281 | 13,865 | 12,982 | 15,267 |
| Maritime Provinces..... | 137,428 | 141,236 | 155,728 | 169,946 |
| Quebec..... | 422,586 | 447,238 | 488,374 | 540,628 |
| Ontario..... | 942,016 | 999,571 | 1,096,030 | 1,230,388 |
| Manitoba..... | 87,232 | 86,523 | 94,235 | 100,591 |
| Saskatchewan..... | 95,337 | 96,280 | 102,129 | 111,353 |
| Alberta..... | 143,518 | 146,932 | 160,909 | 182,111 |
| British Columbia..... | 200,422 | 209,202 | 237,734 | 289,846 |
| Yukon and Northwest Territories..... | 5,408 | 5,788 | 5,835 | 6,925 |
| Canada..... | 2,048,228 | 2,146,635 | 2,353,955 | 2,647,055 |

6.—Retail Chain Store Sales by Province and by Kind of Business 1953-56—concluded

| Kind of Business | 1953 | 1954 | 1955 | 1956 |
|--|------------------|------------------|------------------|------------------|
| Kind of Business | \$'000 | \$'000 | \$'000 | \$'000 |
| Foods and Beverages¹ | 1,265,514 | 1,353,278 | 1,486,644 | 1,685,394 |
| Combination grocery and meat stores | 779,668 | 870,580 | 970,793 | 1,104,060 |
| Restaurants | 34,442 | 33,900 | 34,602 | 36,374 |
| Alcoholic beverage stores | 435,538 | 432,714 | 465,772 | 527,952 |
| General Merchandise (excl. department stores)¹ | 254,299 | 261,495 | 280,871 | 313,976 |
| General stores | 36,541 | 36,560 | 37,450 | 41,144 |
| Variety stores | 188,475 | 194,248 | 207,831 | 229,307 |
| Automotive | 33,418 | 35,014 | 39,923 | 42,043 |
| Apparel and Accessories¹ | 157,421 | 162,239 | 175,077 | 190,674 |
| Men's and boys' clothing and furnishings | 24,734 | 25,350 | 27,037 | 28,866 |
| Women's clothing stores | 49,257 | 54,843 | 61,897 | 67,269 |
| Family clothing stores | 36,241 | 32,069 | 33,418 | 36,347 |
| Shoes | 43,470 | 45,384 | 48,054 | 53,433 |
| Building Materials and Hardware | 107,034 | 104,982 | 114,963 | 141,316 |
| Furniture and Household Appliance | 99,880 | 99,536 | 120,515 | 137,059 |
| Other Retail Stores¹ | 130,662 | 130,090 | 135,962 | 136,592 |
| Drug stores | 34,805 | 35,908 | 36,660 | 41,299 |
| Jewellery stores | 38,238 | 38,954 | 43,016 | 46,301 |

¹ Includes other kinds of business not shown separately.

Operating Results of Retail Chain Stores.—The 1955 operating results of selected trades show generally higher gross profit ratios than 1954. However, operating expenses more than offset this advantage and, as a consequence, reduced ratios of net profit were reported in most cases. Table 7 gives summary data for ten kinds of business in the field of retail chain stores for 1955.

7.—Operating Results of Retail Chain Stores for Selected Kinds of Business 1955

(Percentage of Net Sales)

| Kind of Business | Gross Profit | Salaries and Wages | Occu-pancy ¹ | Total Operating Expenses ² | Net Operating Profit | Net Non-trading Income | Net Profit before Income Tax |
|------------------------------|--------------|--------------------|-------------------------|---------------------------------------|----------------------|------------------------|------------------------------|
| Grocery | 16.03 | 8.75 | 1.94 | 15.32 | 0.71 | 0.11 | 0.82 |
| Combination grocery and meat | 16.45 | 7.67 | 1.39 | 13.40 | 3.05 | 0.16 | 3.21 |
| Meat markets | 18.75 | 11.01 | 1.63 | 17.63 | 1.12 | 0.02 ³ | 1.10 |
| Men's clothing | 30.97 | 14.43 | 5.02 | 28.39 | 2.58 | 0.40 | 2.98 |
| Women's clothing | 32.70 | 14.07 | 6.42 | 28.77 | 3.93 | 0.55 | 4.48 |
| Family clothing | 33.35 | 16.71 | 4.89 | 31.64 | 1.71 | 0.25 | 1.96 |
| Shoes | 32.95 | 15.35 | 5.84 | 27.98 | 4.97 | 0.21 ³ | 4.76 |
| Variety | 38.30 | 17.86 | 5.02 | 29.03 | 9.27 | 0.45 | 9.72 |
| Drug | 34.93 | 19.07 | 5.05 | 31.67 | 3.26 | 0.75 | 4.01 |
| Furniture | 28.50 | 12.30 | 3.37 | 25.09 | 3.41 | 3.85 | 7.26 |

¹ Includes taxes and insurance, light, heat and power, repairs, maintenance, depreciation (except on delivery equipment) and rentals on rented premises. ² Includes salaries and wages and occupancy expenses. ³ Net non-trading expenses.

Operating Results of Independent Retail Stores.—Figures for 1954 for twenty kinds of business are contained in Table 8. Separate ratios are shown for unincorporated and incorporated businesses. Salaries of proprietors of unincorporated stores are included in net profit while salaries of executives of incorporated stores form part of the expense item of salaries and wages.

8.—Operating Ratios of Independent Retail Stores by Kind of Business 1954

(Percentage of Net Sales)

| Kind of Business | Cost of Goods Sold | Gross Profit | Salaries and Wages ¹ | Occupancy Expenses ² | Total Operating Expenses ³ | Net Profit before Income Tax ⁴ |
|--|--------------------|--------------|---------------------------------|---------------------------------|---------------------------------------|---|
| Unincorporated | | | | | | |
| Grocery..... | 85.62 | 14.38 | 2.89 | 3.30 | 8.73 | 5.65 |
| Combination..... | 84.91 | 15.09 | 4.75 | 2.93 | 10.69 | 4.40 |
| Meat..... | 81.10 | 18.90 | 5.53 | 3.37 | 12.53 | 6.37 |
| Confectionery..... | 82.43 | 17.57 | 2.79 | 5.60 | 10.23 | 7.34 |
| Fruits and vegetables..... | 81.58 | 18.42 | 4.35 | 4.46 | 12.47 | 5.95 |
| Men's clothing..... | 72.98 | 27.02 | 6.43 | 5.74 | 17.58 | 9.44 |
| Family clothing..... | 74.12 | 25.88 | 7.27 | 5.38 | 17.22 | 8.66 |
| Women's clothing..... | 72.62 | 27.38 | 8.09 | 6.44 | 19.78 | 7.60 |
| Family shoe..... | 72.23 | 27.77 | 7.74 | 5.76 | 17.55 | 10.22 |
| General stores..... | 85.08 | 14.92 | 3.74 | 2.96 | 9.24 | 5.68 |
| Furniture..... | 73.12 | 26.88 | 7.15 | 5.27 | 19.72 | 7.16 |
| Household appliance, radio and television..... | 73.93 | 26.07 | 8.86 | 4.18 | 19.46 | 6.61 |
| Hardware..... | 74.17 | 25.83 | 8.09 | 4.52 | 16.83 | 9.00 |
| Restaurants..... | 62.31 | 37.69 | 16.17 | 10.33 | 30.17 | 7.52 |
| Fuel dealers..... | 77.03 | 22.97 | 3.61 | 2.48 | 17.56 | 5.41 |
| Drug..... | 70.18 | 29.82 | 9.20 | 4.77 | 18.23 | 11.59 |
| Jewellery..... | 59.81 | 40.19 | 10.07 | 8.30 | 25.53 | 14.66 |
| Tobacco..... | 81.74 | 18.26 | 4.09 | 5.18 | 10.94 | 7.32 |
| Filling stations..... | 79.20 | 20.80 | 6.61 | 4.64 | 13.70 | 7.10 |
| Garages..... | 69.41 | 30.59 | 11.40 | 5.70 | 21.14 | 9.45 |
| Incorporated | | | | | | |
| Men's clothing..... | 70.17 | 29.83 | 15.75 | 6.09 | 28.09 | 1.74 |
| Family clothing..... | 70.55 | 29.45 | 15.73 | 4.97 | 27.12 | 2.33 |
| Women's clothing..... | 68.77 | 31.23 | 16.57 | 7.08 | 29.23 | 2.00 |
| Family shoe..... | 68.51 | 31.49 | 16.98 | 6.54 | 29.00 | 2.49 |
| Hardware..... | 73.03 | 26.97 | 15.70 | 4.14 | 24.97 | 2.00 |
| Furniture..... | 71.83 | 28.17 | 13.99 | 4.59 | 26.63 | 1.54 |
| Household appliance, radio and television..... | 73.65 | 26.35 | 13.98 | 3.70 | 24.61 | 1.74 |
| Fuel dealers..... | 77.65 | 22.35 | 6.12 | 2.16 | 20.35 | 2.00 |
| Drug..... | 67.86 | 32.14 | 18.53 | 5.16 | 28.50 | 3.64 |
| Jewellery..... | 56.48 | 43.52 | 22.92 | 8.25 | 40.38 | 3.14 |

¹ Excludes delivery and, for unincorporated stores, also excludes proprietors' salaries.² Includes taxes

and insurance, light, heat and power, repairs, maintenance, depreciation (except on delivery equipment) and rentals on rented premises.

³ Includes salaries and wages and occupancy expenses.⁴ Includes, for unincorporated stores, proprietors' salaries or withdrawals.

Motor Vehicle Sales.—There were 407,710 new passenger cars sold in 1956, an all-time record. Sales of trucks and buses recovered from a drop in 1954 but did not pass the 1950-53 level in number of units sold. Dollar sales were at record levels in both categories in 1956.

9.—Retail Sales of New Motor Vehicles 1947-56

| Year | Passenger Cars | | Trucks and Buses | | Totals | |
|-------------------------|----------------|---------------|------------------|-------------|---------|---------------|
| | No. | \$ | No. | \$ | No. | \$ |
| 1947..... | 159,205 | 283,190,390 | 71,050 | 133,047,105 | 230,255 | 416,237,495 |
| 1948..... | 145,655 | 282,903,958 | 75,645 | 156,313,030 | 221,300 | 439,216,988 |
| 1949 ¹ | 202,318 | 412,297,863 | 84,023 | 176,426,822 | 286,341 | 588,724,685 |
| 1950..... | 324,903 | 661,673,944 | 104,792 | 223,995,095 | 429,695 | 885,669,039 |
| 1951..... | 275,686 | 683,182,846 | 109,962 | 266,976,665 | 385,648 | 950,159,511 |
| 1952..... | 292,095 | 725,167,630 | 108,682 | 277,448,211 | 400,777 | 1,002,615,841 |
| 1953..... | 359,172 | 899,726,000 | 103,354 | 262,745,000 | 462,526 | 1,162,471,000 |
| 1954..... | 310,546 | 797,554,000 | 72,082 | 191,964,000 | 382,628 | 989,518,000 |
| 1955..... | 386,962 | 1,023,351,000 | 78,716 | 223,539,000 | 465,678 | 1,255,890,000 |
| 1956..... | 407,710 | 1,127,523,000 | 91,660 | 326,690,000 | 499,370 | 1,454,213,000 |

¹ Newfoundland included from 1949.

Farm Implement Sales.—All regions registered an increase in farm implement and equipment sales in 1956 over 1955. Sales of repair parts, which are not recorded in Tables 10 and 11, amounted to \$28,451,964 in 1955 and \$31,824,672 in 1956—a slight increase in each year over the 1954 figure of \$27,335,796. Sales by province are shown for 1955 and 1956 in Table 10 and by type of equipment in Table 11.

10.—Sales of Farm Implements and Equipment by Province 1955 and 1956

(Values at wholesale prices)

| Province or Region | 1955 | | 1956 | | Percentage Change 1955-56 |
|-------------------------|--------------------|---------------|--------------------|---------------|---------------------------|
| | Amount | P.C. of Total | Amount | P.C. of Total | |
| | \$ | | \$ | | |
| Newfoundland..... | 343, 876 | 0.2 | 439, 871 | 0.3 | +27.9 |
| Maritime Provinces..... | 6, 485, 628 | 4.2 | 6, 984, 186 | 4.1 | + 7.7 |
| Quebec..... | 21, 713, 939 | 14.2 | 23, 325, 374 | 13.6 | + 7.4 |
| Ontario..... | 43, 819, 906 | 28.6 | 42, 902, 342 | 25.1 | - 2.1 |
| Manitoba..... | 15, 074, 611 | 9.9 | 18, 588, 098 | 10.9 | +23.3 |
| Saskatchewan..... | 32, 435, 199 | 21.2 | 40, 748, 641 | 23.9 | +25.6 |
| Alberta..... | 28, 065, 645 | 18.3 | 32, 686, 198 | 19.1 | +16.5 |
| British Columbia..... | 5, 185, 630 | 3.4 | 5, 092, 745 | 3.0 | - 1.8 |
| Totals..... | 153,124,434 | 100.0 | 170,767,455 | 100.0 | +11.5 |

11.—Farm Implement and Equipment Sales by Major Group 1955 and 1956

(Values at wholesale prices)

| Group | Canada | | | Prairie Provinces | | | |
|---|----------------|----------------|---------------------|-------------------|---------------|---------------------|---------------------------|
| | 1955 | 1956 | P.C. Change 1955-56 | 1955 | 1956 | P.C. Change 1955-56 | P.C. of Canada Total 1956 |
| | \$'000 | \$'000 | | \$'000 | \$'000 | | |
| Planting, seeding, and fertilizing machinery..... | 5,341 | 6,094 | +14.1 | 1,720 | 2,213 | +28.7 | 36.3 |
| Ploughs..... | 8,225 | 8,019 | - 2.5 | 5,414 | 5,332 | - 1.5 | 66.5 |
| Tilling, cultivating, and weeding machinery..... | 7,016 | 7,071 | + 0.8 | 4,004 | 4,262 | + 6.4 | 60.3 |
| Haying machinery..... | 19,820 | 27,245 | +37.5 | 7,748 | 11,931 | +54.0 | 43.8 |
| Harvesting machinery..... | 27,564 | 34,753 | +26.1 | 21,727 | 28,528 | +31.3 | 82.1 |
| Machines for preparing crops for market or use..... | 4,933 | 4,768 | - 3.3 | 2,792 | 2,948 | + 5.6 | 61.8 |
| Tractors and engines..... | 58,760 | 63,262 | + 7.7 | 27,157 | 31,398 | +15.6 | 49.6 |
| Spraying and dusting equipment..... | 1,996 | 1,770 | -11.3 | 492 | 550 | +11.8 | 31.1 |
| Farm wagons, trucks and sleighs..... | 1,433 | 1,805 | +26.0 | 396 | 507 | +28.0 | 28.1 |
| Dairy machinery and equipment..... | 3,963 | 4,787 | +21.1 | 847 | 1,078 | +27.3 | 22.5 |
| Barn equipment..... | 2,671 | 2,637 | - 1.3 | 567 | 558 | - 1.6 | 21.2 |
| Poultry farm equipment..... | 631 | 948 | +50.2 | 134 | 171 | +27.6 | 18.0 |
| Miscellaneous farm equipment..... | 10,781 | 7,608 | -29.4 | 2,577 | 2,547 | - 1.2 | 33.5 |
| Totals, All Groups..... | 153,124 | 170,767 | +11.5 | 75,575 | 92,023 | +21.8 | 53.8 |

Sales Financing.—Financing of retail instalment sales reached a record high in 1956 when it was in excess of \$1,000,000,000. Both consumer and commercial and industrial sectors contributed to the gain. Balances outstanding at the close of the year were also

higher as is shown in Table 12. The figures of motor vehicle sales and financing given in Table 13 show that a greater proportion of vehicles was financed in 1956 than in previous years.

12.—Retail Instalment Paper Purchased and Balances Outstanding by Province and by Class of Goods 1953-56

(Millions of Dollars)

| Item | Paper Purchased | | | | Balances Outstanding Dec. 31— | | | |
|--------------------------------------|-----------------|------------|------------|--------------|-------------------------------|------------|------------|--------------|
| | 1953 | 1954 | 1955 | 1956 | 1953 | 1954 | 1955 | 1956 |
| Province | | | | | | | | |
| Atlantic Provinces..... | 73 | 67 | 86 | 98 | 53 | 54 | 68 | 81 |
| Quebec..... | 195 | 182 | 225 | 298 | 146 | 145 | 187 | 248 |
| Ontario..... | 379 | 327 | 404 | 500 | 274 | 258 | 317 | 417 |
| Manitoba..... | 44 | 31 | 34 | 44 | 33 | 27 | 27 | 37 |
| Saskatchewan..... | 52 | 36 | 32 | 43 | 40 | 33 | 30 | 35 |
| Alberta..... | 119 | 85 | 103 | 138 | 93 | 76 | 89 | 115 |
| British Columbia ¹ | 81 | 66 | 93 | 127 | 58 | 54 | 73 | 102 |
| Totals, Retail Financing..... | 943 | 794 | 977 | 1,248 | 697 | 647 | 791 | 1,035 |
| Class of Goods | | | | | | | | |
| Consumer Goods..... | 714 | 620 | 759 | 925 | 512 | 483 | 599 | 756 |
| New passenger cars..... | 252 | 231 | 307 | 409 | 195 | 193 | 264 | 364 |
| Used passenger cars..... | 321 | 269 | 297 | 337 | 216 | 195 | 214 | 249 |
| Radio and television..... | 38 | 43 | 59 | 58 | 29 | 35 | 47 | 47 |
| Household appliances..... | 64 | 44 | 58 | 58 | 46 | 36 | 45 | 47 |
| Furniture..... | 14 | 11 | 15 | 21 | 10 | 9 | 12 | 17 |
| Other..... | 25 | 22 | 23 | 42 | 16 | 15 | 17 | 32 |
| Commercial and Industrial | 229 | 174 | 218 | 323 | 185 | 164 | 192 | 279 |
| New commercial vehicles..... | 90 | 61 | 73 | 112 | 78 | 63 | 67 | 98 |
| Used commercial vehicles..... | 63 | 50 | 50 | 52 | 46 | 41 | 39 | 40 |
| Other..... | 76 | 63 | 95 | 159 | 61 | 60 | 86 | 141 |

¹ Includes the Yukon and Northwest Territories.

13.—Sales and Financing of New Motor Vehicles (Passenger and Commercial) 1947-56

| Year | Motor Vehicles Sold | Motor Vehicles Financed | P.C. of Total Sales Financed | | Average Financed Value |
|-------------------------|---------------------|-------------------------|------------------------------|-------|------------------------|
| | | | Number | Value | |
| | | | | | |
| | No. | No. | p.c. | p.c. | \$ |
| 1947..... | 230,255 | 46,700 | 20.3 | 15.7 | 1,401 |
| 1948..... | 221,300 | 51,867 | 23.4 | 16.8 | 1,423 |
| 1949 ¹ | 286,341 | 81,502 | 28.5 | 19.6 | 1,417 |
| 1950..... | 429,695 | 135,304 | 31.5 | 21.6 | 1,415 |
| 1951..... | 385,648 | 126,255 | 32.7 | 20.1 | 1,514 |
| 1952..... | 400,777 | 172,587 | 43.1 | 29.2 | 1,695 |
| 1953..... | 462,526 | 189,052 | 40.9 | 29.4 | 1,810 |
| 1954..... | 382,628 | 154,104 | 40.3 | 29.5 | 1,897 |
| 1955..... | 465,678 | 185,127 | 39.8 | 29.9 | 2,031 |
| 1956..... | 499,370 | 224,905 | 45.0 | 35.8 | 2,316 |

¹ Newfoundland included from 1949.

Retail Consumer Credit.—Credit granted by retail stores forms a large part of the over-all consumer credit total. The total amount owing to retailers at the end of 1956 stood at \$981,500,000, almost double the 1951 figure of \$545,800,000. The rise in credit from 1951 to 1956 held by retailers is evident in Table 14.

14.—Retail Consumer Credit 1951-56 and by Kind of Business 1956

| Period and Kind of Business | Sales | | | | Accounts Receivable (at end of period) | | |
|--|------------|-----------------|--------------------|------------|---|-------------------|------------|
| | Cash | Instal- ment | Charge | Total | Instal- ment | Charge | Total |
| | \$'000,000 | \$'000,000 | \$'000,000 | \$'000,000 | \$'000,000 | \$'000,000 | \$'000,000 |
| 1951 ^r | 7,167.6 | 943.6 | 2,581.6 | 10,692.8 | 126.5 | 419.3 | 545.8 |
| 1952 ^r | 7,418.4 | 1,421.5 | 2,692.2 | 11,532.1 | 246.2 | 451.3 | 697.5 |
| 1953..... | 7,808.2 | 1,585.5 | 2,734.2 | 12,127.9 | 287.8 | 483.6 | 771.4 |
| 1954..... | 7,887.9 | 1,431.5 | 2,746.4 | 12,065.8 | 326.6 | 492.7 | 819.3 |
| 1955..... | 8,348.3 | 1,705.6 | 3,058.0 | 13,111.9 | 381.8 | 542.8 | 924.6 |
| 1956— | | | | | | | |
| January-March..... | 1,870.2 | 354.3 | 685.6 | 2,910.1 | 365.3 | 490.4 | 855.7 |
| April-June..... | 2,322.7 | 545.7 | 838.5 | 3,706.9 | 372.6 | 535.9 | 908.5 |
| July-September..... | 2,264.2 | 484.9 | 841.0 | 3,590.1 | 383.4 | 556.8 | 940.2 |
| October-December..... | 2,557.0 | 442.7 | 881.8 | 3,881.5 | 414.9 | 566.6 | 981.5 |
| Kind of Business | | | | | | | |
| Department stores..... | 771.3 | 211.6 | 259.2 | 1,242.1 | 161.3 | 83.1 | 244.4 |
| Motor vehicle dealers..... | 820.1 | 1,114.1 | 612.7 | 2,546.9 | 22.2 | 74.5 | 96.7 |
| Men's clothing stores..... | 170.8 | 6.3 | 50.2 | 227.3 | 1.9 | 14.2 | 16.1 |
| Family clothing stores..... | 148.6 | 17.4 | 45.9 | 211.9 | 7.0 | 14.7 | 21.7 |
| Women's clothing stores..... | 185.1 | 3.4 | 54.3 | 242.8 | 1.0 | 11.8 | 12.8 |
| Hardware stores..... | 169.3 | 9.5 | 95.3 | 274.1 | 4.0 | 24.0 | 28.0 |
| Furniture, appliances and radio stores..... | 179.2 | 283.8 | 113.3 | 576.3 | 162.9 | 26.4 | 189.3 |
| Jewellery stores..... | 78.8 | 27.9 | 24.1 | 130.8 | 15.0 | 8.8 | 23.8 |
| Grocery and combination stores (independent)..... | 1,183.9 | .. | 357.8 | 1,541.7 | .. | 35.5 | 35.5 |
| General stores..... | 377.9 | .. | 179.9 ¹ | 557.8 | .. | 26.8 ¹ | 26.8 |
| Fuel dealers..... | 67.4 | 3.9 | 225.6 | 296.9 | 2.4 | 40.2 | 42.6 |
| Garages and filling stations..... | 531.0 | .. | 225.7 ¹ | 756.7 | .. | 28.9 ¹ | 28.9 |
| All other trades..... | 4,330.7 | 145.4 | 1,007.2 | 5,483.3 | 36.9 | 178.0 | 214.9 |

¹ Includes instalment.

Subsection 3.—Service Establishments

Service establishments as defined in the Census of Distribution include all those places of business where major source of gross income (annual turnover) was derived from the rendering of services as opposed to the sale of merchandise. The following types of service were covered: amusement and recreation such as motion-picture theatres and bowling alleys; personal services such as laundries and dry-cleaning plants, barber shops and shoe repair shops; certain business services such as advertising agencies and window display services; repair services such as automobile repair, radio repair and watch repair; burial services; photography, commercial and portrait; hotels and tourist camps; and other services such as cold storage locker rentals and taxis.

Summary statistics of the detailed coverage in 1951 are given in the 1955 Year Book at pp. 974-977. Annual data for certain services only are included here.

Theatres.—The receipts of motion-picture theatres increased steadily up to 1953 but decreased continuously since as shown by Table 15. Drive-in theatres, which showed the greatest development among theatres in recent years, appear to have reached their peak in 1955. In 1956 there were 237 drive-ins in operation as compared with 242 in the previous year.

15.—Motion-Picture Theatres and Receipts by Province 1953-56

NOTE.—Figures include, in addition to regular theatres, establishments in which motion-picture entertainment is provided by community organizations such as churches, lodges, Boards of Trade, etc., as well as drive-in theatres. Halls serviced by itinerant operators are not included. Receipts are exclusive of amusement taxes.

| Province | 1953 | | 1954 | | 1955 | | 1956 | |
|-------------------------------------|--------------|--------------------|--------------|--------------------|--------------|-------------------|--------------|-------------------|
| | No. | \$ | No. | \$ | No. | \$ | No. | \$ |
| Newfoundland..... | 104 | 1,321,390 | 115 | 1,475,567 | 128 | 1,564,753 | 130 | 1,278,641 |
| P. E. Island..... | 16 | 359,162 | 22 | 427,680 | 21 | 446,187 | 17 | 329,699 |
| Nova Scotia..... | 92 | 4,364,824 | 97 | 4,543,668 | 99 | 3,972,238 | 96 | 3,252,641 |
| New Brunswick..... | 76 | 2,838,430 | 79 | 2,872,828 | 80 | 2,616,167 | 76 | 2,371,715 |
| Quebec..... | 654 | 25,989,955 | 639 | 23,066,057 | 632 | 19,987,471 | 563 | 19,663,010 |
| Ontario..... | 658 | 42,253,374 | 645 | 39,847,466 | 641 | 35,983,815 | 589 | 34,154,413 |
| Manitoba..... | 194 | 5,610,673 | 198 | 5,773,354 | 201 | 4,802,826 | 185 | 4,035,086 |
| Saskatchewan..... | 415 | 5,711,955 | 435 | 6,270,287 | 423 | 5,549,273 | 390 | 5,034,855 |
| Alberta..... | 300 | 8,810,223 | 319 | 9,780,059 | 324 | 9,070,426 | 305 | 8,168,863 |
| British Columbia ¹ | 240 | 11,283,980 | 264 | 11,072,915 | 259 | 9,826,031 | 241 | 9,227,972 |
| Canada..... | 2,749 | 108,603,966 | 2,813 | 105,129,881 | 2,808 | 93,819,187 | 2,592 | 87,516,895 |

¹ Includes the Yukon and Northwest Territories.

16.—Summary Statistics of Motion-Picture Theatre Operations 1955 and 1956

| Item | Regular Theatres | Drive-in Theatres | Community Enterprises | Halls Serviced by Itinerant Operators | Total |
|------------------------------------|------------------|-------------------|-----------------------|---------------------------------------|-------------|
| 1955 | | | | | |
| Establishments..... No. | 1,950 | 242 | 616 | 590 | 3,398 |
| Receipts (excluding taxes)..... \$ | 86,373,652 | 5,755,153 | 1,690,377 | 340,381 | 94,159,568 |
| Amusement taxes..... \$ | 10,264,183 | 601,836 | 119,967 | 20,499 | 11,006,485 |
| Paid admissions..... No. | 184,968,467 | 10,687,887 | 4,757,223 | 947,038 | 201,360,615 |
| 1956 | | | | | |
| Establishments..... No. | 1,849 | 237 | 506 | 394 | 2,986 |
| Receipts (excluding taxes)..... \$ | 80,666,267 | 5,394,296 | 1,456,332 | 251,925 | 87,768,820 |
| Amusement taxes..... \$ | 8,674,890 | 519,638 | 100,745 | 13,505 | 9,308,778 |
| Paid admissions..... No. | 162,859,006 | 9,705,982 | 4,050,779 | 685,624 | 177,301,391 |

Power Laundries, Dry Cleaning and Dyeing Plants.—A record of the value of work performed by power laundries and cleaning and dyeing establishments during the years 1950-56 is given in Table 17, together with other basic data on operation.

17.—Summary Statistics of Power Laundries, Dry Cleaning and Dyeing Plants 1950-56 and by Province 1955 and 1956

| Year | Plants | Em- ployees | Salaries and Wages | Cost of Materials | Value of Work Performed |
|------------------------|--------|----------------|--------------------------|-------------------------|-------------------------------|
| POWER LAUNDRIES | | | | | |
| | No. | No. | \$ | \$ | \$ |
| 1950..... | 323 | 14,310 | 20,976,430 | 4,811,682 | 40,586,942 |
| 1951..... | 317 | 14,079 | 22,248,517 | | 44,053,442 |
| 1952..... | 307 | 13,922 | 24,496,053 | 6,143,769 | 46,852,690 |
| 1953..... | 310 | 14,164 | 25,801,841 | 6,511,296 | 49,120,933 |
| 1954..... | 299 | 13,754 | 26,635,646 | 4,665,671 | 50,513,242 |
| 1955..... | 306 | 13,991 | 28,078,112 | 4,994,234 | 54,199,647 |
| 1956..... | 308 | 14,514 | 30,090,800 | 5,738,133 | 58,873,728 |

**17.—Summary Statistics of Power Laundries, Dry Cleaning and Dyeing Plants 1950-56
and by Province 1955 and 1956—concluded**

| Year and Province | Plants | Em- ployees | Salaries and Wages | Cost of Materials | Value of Work Performed |
|--|--------------|----------------|--------------------------|-------------------------|-------------------------------|
| POWER LAUNDRIES—concluded | | | | | |
| 1955 | No. | No. | \$ | \$ | \$ |
| Newfoundland and Prince Edward Island..... | 5 | 93 | 128,092 | 26,068 | 245,551 |
| Nova Scotia..... | 15 | 459 | 730,678 | 158,375 | 1,468,967 |
| New Brunswick..... | 13 | 427 | 671,547 | 153,160 | 1,325,772 |
| Quebec..... | 78 | 4,506 | 8,621,306 | 1,541,720 | 16,551,039 |
| Ontario..... | 110 | 4,690 | 9,367,094 | 1,575,379 | 17,951,040 |
| Manitoba..... | 8 | 524 | 1,015,307 | 190,723 | 1,896,566 |
| Saskatchewan..... | 10 | 306 | 686,736 | 146,856 | 1,332,320 |
| Alberta..... | 23 | 917 | 1,885,089 | 393,330 | 3,658,473 |
| British Columbia, Yukon and N.W.T..... | 44 | 2,069 | 4,972,263 | 808,623 | 9,769,919 |
| Canada, 1955..... | 306 | 13,991 | 28,078,112 | 4,994,234 | 54,199,647 |
| 1956 | | | | | |
| Newfoundland and Prince Edward Island..... | 5 | 108 | 162,351 | 32,401 | 366,610 |
| Nova Scotia..... | 14 | 471 | 770,239 | 167,520 | 1,595,386 |
| New Brunswick..... | 13 | 419 | 666,646 | 157,702 | 1,339,979 |
| Quebec..... | 79 | 4,623 | 9,245,679 | 1,753,315 | 17,826,785 |
| Ontario..... | 114 | 4,909 | 10,114,492 | 1,815,185 | 19,847,552 |
| Manitoba..... | 7 | 538 | 1,005,244 | 197,124 | 1,966,308 |
| Saskatchewan..... | 9 | 311 | 672,326 | 153,807 | 1,328,742 |
| Alberta..... | 23 | 921 | 1,934,873 | 404,132 | 3,888,583 |
| British Columbia, Yukon and N.W.T..... | 44 | 2,214 | 5,518,950 | 1,056,947 | 10,713,783 |
| Canada, 1956..... | 308 | 14,514 | 30,090,800 | 5,738,133 | 58,873,725 |
| DRY CLEANING AND DYEING PLANTS | | | | | |
| | No. | No. | \$ | \$ | \$ |
| 1950..... | 919 | 13,450 | 21,704,698 | 5,378,564 | 46,249,622 |
| 1951..... | 981 | 13,933 | 23,850,119 | | 52,798,415 |
| 1952..... | 991 | 14,816 | 27,148,924 | 6,710,355 | 58,478,449 |
| 1953..... | 1,029 | 15,234 | 29,898,356 | 7,255,050 | 64,029,307 |
| 1954..... | 1,107 | 15,485 | 31,512,711 | 7,535,432 | 67,222,831 |
| 1955..... | 1,205 | 15,909 | 32,873,802 | 7,930,290 | 70,733,946 |
| 1956..... | 1,338 | 16,939 | 35,620,930 | 9,157,172 | 78,527,203 |
| 1955 | | | | | |
| Newfoundland and Prince Edward Island..... | 17 | 269 | 529,659 | 129,102 | 1,179,804 |
| Nova Scotia..... | 45 | 576 | 1,030,815 | 246,501 | 2,241,177 |
| New Brunswick..... | 33 | 340 | 532,733 | 154,207 | 1,366,602 |
| Quebec..... | 217 | 3,479 | 7,105,324 | 1,667,961 | 15,254,551 |
| Ontario..... | 521 | 6,913 | 14,413,726 | 3,492,541 | 30,974,922 |
| Manitoba..... | 53 | 1,187 | 2,704,898 | 613,132 | 5,087,697 |
| Saskatchewan..... | 84 | 653 | 1,406,773 | 344,771 | 3,275,254 |
| Alberta..... | 117 | 1,247 | 2,442,271 | 628,769 | 5,441,888 |
| British Columbia, Yukon and N.W.T..... | 118 | 1,245 | 2,707,603 | 653,306 | 5,912,051 |
| Canada, 1955..... | 1,205 | 15,909 | 32,873,802 | 7,930,290 | 70,733,946 |
| 1956 | | | | | |
| Newfoundland and Prince Edward Island..... | 18 | 260 | 554,782 | 137,468 | 1,235,653 |
| Nova Scotia..... | 48 | 597 | 1,118,485 | 290,588 | 2,307,542 |
| New Brunswick..... | 36 | 388 | 630,298 | 195,189 | 1,570,530 |
| Quebec..... | 252 | 3,764 | 7,831,274 | 1,995,942 | 16,801,189 |
| Ontario..... | 581 | 7,304 | 15,666,948 | 3,941,594 | 34,726,270 |
| Manitoba..... | 59 | 1,316 | 2,588,842 | 774,639 | 5,640,114 |
| Saskatchewan..... | 90 | 678 | 1,393,784 | 366,996 | 3,377,059 |
| Alberta..... | 128 | 1,320 | 2,890,999 | 712,582 | 6,388,152 |
| British Columbia, Yukon and N.W.T..... | 126 | 1,312 | 2,945,518 | 742,174 | 6,480,724 |
| Canada, 1956..... | 1,338 | 16,939 | 35,620,930 | 9,157,172 | 78,527,203 |

Advertising Agencies.—Table 18 records the growth of business done by advertising agencies during 1956 as compared with the four previous years.

18.—Summary Statistics of Advertising Agencies 1952-56

| Item | 1952 | 1953 | 1954 | 1955 | 1956 |
|------------------------------------|-------------|-------------|-------------|-------------|-------------|
| Billings..... \$ | 121,666,983 | 144,339,308 | 156,163,289 | 177,240,355 | 204,580,522 |
| Commissionable billings..... \$ | 120,628,827 | 142,957,916 | 154,467,088 | 174,924,772 | 201,797,434 |
| Other..... \$ | 1,038,156 | 1,381,392 | 1,696,201 | 2,315,583 | 2,783,088 |
| Gross revenue..... \$ | 19,060,261 | 22,591,718 | 24,579,169 | 27,689,654 | 32,203,754 |
| Distribution of Billings— | | | | | |
| Publications..... p.c. | 59.9 | 59.1 | 56.4 | 53.3 | 52.6 |
| Other visual..... p.c. | 4.5 | 4.2 | 4.5 | 5.5 | 4.4 |
| Production, artwork, etc..... p.c. | 17.1 | 17.4 | 17.3 | 15.1 | 15.3 |
| Radio..... p.c. | 17.6 | 18.7 | 15.4 | 11.9 | 10.3 |
| Television..... p.c. | | | | | |
| Other..... p.c. | 0.9 | 0.6 | 0.9 | 0.7 | 0.8 |

Hotels.—In 1956 there were 5,067 hotels in operation in Canada, 4,148 of them full-year hotels and 919 seasonal hotels. Table 19 shows the provincial distribution of these establishments, together with the sources of their revenue.

19.—Hotels and their Receipts by Source 1950-56 and by Province 1955 and 1956

| Year and Province | Hotels | Rooms | Receipts | | | | |
|---------------------------|--------------|----------------|----------------|---------------|-----------------------|-------------------|----------------|
| | | | Rooms | Meals | Beer, Wine and Liquor | All Other Sources | Total |
| | No. | No. | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| 1950..... | 5,169 | 146,353 | 75,842 | 58,586 | 162,815 | 25,147 | 322,390 |
| 1951..... | 5,092 | 146,441 | 83,322 | 63,440 | 180,642 | 29,878 | 357,282 |
| 1952..... | 5,157 | 140,615 | 89,879 | 67,269 | 201,759 | 33,029 | 391,936 |
| 1953..... | 5,209 | 149,653 | 93,914 | 70,974 | 209,984 | 35,843 | 410,715 |
| 1954..... | 5,208 | 148,890 | 94,094 | 70,829 | 204,555 | 36,378 | 405,856 |
| 1955..... | 5,081 | 147,812 | 96,273 | 72,236 | 211,415 | 35,385 | 415,309 |
| 1956..... | 5,067 | 149,625 | 104,453 | 78,169 | 223,398 | 35,811 | 441,831 |
| 1955 | | | | | | | |
| Newfoundland..... | 29 | 801 | 856 | 627 | 710 | 197 | 2,390 |
| Prince Edward Island..... | 25 | 717 | 334 | 296 | — | 57 | 687 |
| Nova Scotia..... | 133 | 3,665 | 2,895 | 2,438 | 389 | 622 | 6,344 |
| New Brunswick..... | 96 | 3,189 | 2,175 | 1,325 | — | 500 | 4,009 |
| Quebec..... | 1,505 | 39,801 | 24,045 | 18,994 | 51,072 | 8,007 | 102,118 |
| Ontario..... | 1,495 | 45,881 | 31,415 | 28,295 | 62,698 | 12,151 | 134,559 |
| Manitoba..... | 287 | 8,006 | 4,672 | 2,523 | 19,171 | 2,026 | 28,392 |
| Saskatchewan..... | 523 | 11,780 | 5,728 | 3,595 | 23,586 | 2,582 | 35,491 |
| Alberta..... | 450 | 14,764 | 10,911 | 6,581 | 28,172 | 4,704 | 50,318 |
| British Columbia..... | 538 | 19,208 | 13,242 | 7,612 | 25,617 | 4,530 | 51,001 |
| Canada, 1955..... | 5,081 | 147,812 | 96,273 | 72,236 | 211,415 | 35,385 | 415,309 |
| 1956 | | | | | | | |
| Newfoundland..... | 28 | 798 | 938 | 684 | 746 | 205 | 2,573 |
| Prince Edward Island..... | 24 | 677 | 357 | 292 | — | 51 | 700 |
| Nova Scotia..... | 129 | 3,705 | 3,073 | 2,638 | 286 | 572 | 6,569 |
| New Brunswick..... | 96 | 3,152 | 2,310 | 1,395 | — | 571 | 4,276 |
| Quebec..... | 1,500 | 40,293 | 26,166 | 20,111 | 55,529 | 7,651 | 109,457 |
| Ontario..... | 1,496 | 46,584 | 33,934 | 30,289 | 64,843 | 12,231 | 141,297 |
| Manitoba..... | 287 | 8,012 | 4,832 | 3,058 | 19,048 | 2,040 | 28,978 |
| Saskatchewan..... | 518 | 11,698 | 5,983 | 3,632 | 24,094 | 2,703 | 36,412 |
| Alberta..... | 449 | 14,921 | 11,598 | 6,977 | 28,553 | 4,768 | 51,896 |
| British Columbia..... | 540 | 19,785 | 15,262 | 9,093 | 30,299 | 5,019 | 59,673 |
| Canada, 1956..... | 5,067 | 149,625 | 104,453 | 78,169 | 223,398 | 35,811 | 441,831 |

¹ Includes the Yukon and Northwest Territories.

Section 2.—The Marketing of Agricultural Products

A special article covering the general movement of farm-produced foods from producer to consumer, with the exception of the grain trade and livestock, appears in the 1956 Year Book, pp. 917-922. Grain and livestock marketings are dealt with in detail in Subsections 1 and 2 following.

Subsection 1.—Grain Trade

Marketing Problems and Policies, 1955-56

In 1955-56 production, marketings and exports of the five major Canadian grains combined were above the 1954-55 levels. Although the spring season was late, good weather conditions prevailed during most of the growing and harvesting periods and above-average yields were obtained for most crops. The higher level of production in 1955 was sufficient to offset by a considerable margin the decline that occurred in July-end carryover stocks. Marketings of wheat, oats and barley continued under the compulsory crop-year pools system of the Canadian Wheat Board. All grains in Eastern Canada and rye and flaxseed in Western Canada continued to be traded on the open market.

On July 19, 1955, the Canadian Wheat Board announced the delivery quota policy for the 1955-56 crop year. As in the preceding year, an initial quota of 100 units was to be effective at local delivery stations as announced (one unit being equivalent to three bushels of wheat, or five bushels of barley or rye, or eight bushels of oats). The initial quota was followed by general delivery quotas, based upon bushels per specified acre, the specified acreage consisting of the producer's acreage seeded to wheat (other than Durum), oats, barley and rye plus his acreage in summerfallow in 1955. Deliveries of Durum wheat and flaxseed were not subject to quota control. However, by July 31, 1955, some producers had not completed their deliveries under the final eight-bushel general quota established for the crop year 1954-55, and the Board extended this quota but with deliveries for the account of the 1955-56 pool. Eight-bushel general quotas at individual stations expired and initial delivery quotas for 1955-56 were established only after the Board was reasonably certain that deliveries under the eight-bushel general quota had been largely completed. By Sept. 2, initial unit quotas had been established at all delivery points. By the end of the crop year, delivery quotas varied between five bushels and eight bushels per specified acre.

Preliminary data indicate that total marketings of the five major grains in Western Canada in 1955-56 amounted to about 567,300,000 bu., representing an increase of 8 p.c. over the comparable 1954-55 total of 524,600,000 bu. and 2 p.c. over the ten-year (1945-46—1954-55) average of 556,300,000 bu. Combined exports of the same grains, including wheat flour, rolled oats and oatmeal, malt and pot and pearl barley in grain equivalent, amounted to 406,500,000 bu., exceeding both the 1954-55 total of 370,700,000 bu. and the ten-year (1946-55) average of 369,900,000 bu. Carryover stocks of the five major Canadian grains in all positions at July 31, 1956, were estimated at 827,400,000 bu., about 13 p.c. above the 1955 figure of 731,900,000 bu. and more than double the ten-year average of 399,600,000 bu.

20.—Supply and Disposition of Canadian Grain, Crop Years Ended July 31, 1955 and 1956

NOTE.—Data for wheat include final revisions based on the 1956 Census but data for other crops are subject to change pending completion of intercensal revisions.

(Millions of bushels)

| Item | Wheat | Oats | Barley | Rye | Flaxseed |
|------------------------------|--------------|--------------|--------------|-------------|-------------|
| Crop Year 1954-55 | | | | | |
| Carryover, Aug. 1, 1954..... | 618.7 | 125.8 | 145.9 | 19.3 | 2.6 |
| Production in 1954..... | 332.0 | 306.8 | 175.5 | 14.2 | 11.2 |
| Imports ¹ | 0.2 | 2 | 2 | 2 | 2 |
| Totals, Supply..... | 950.8 | 432.6 | 321.4 | 33.5 | 13.8 |

For footnotes, see end of table.

20.—Supply and Disposition of Canadian Grain, Crop Years Ended July 31, 1955 and 1956
—concluded

| Item | Wheat | Oats | Barley | Rye | Flaxseed |
|------------------------------------|----------------|--------------|--------------|--------------|-------------|
| Crop Year 1954-55—concluded | | | | | |
| Exports ¹ | 251.9 | 22.2 | 80.9 | 9.3 | 6.3 |
| Domestic use ² | 162.2 | 326.4 | 149.1 | 5.7 | 6.2 |
| Totals, Disposition | 414.1 | 348.6 | 229.9 | 15.0 | 12.6 |
| Crop Year 1955-56 | | | | | |
| Carryover, July 31, 1955..... | 536.7 | 84.0 | 91.5 | 18.5 | 1.2 |
| Production in 1955..... | 519.2 | 407.8 | 252.4 | 14.8 | 19.7 |
| Imports ¹ | ₂ | ₂ | ₂ | ₂ | 1.1 |
| Totals, Supply | 1,056.0 | 491.8 | 343.9 | 33.2 | 22.0 |
| Exports ¹ | 309.2 | 4.1 | 68.7 | 12.9 | 11.6 |
| Domestic use ² | 167.2 | 368.5 | 164.2 | 5.0 | 8.0 |
| Totals, Disposition | 476.4 | 372.7 | 232.9 | 17.9 | 19.5 |
| Carryover, July 31, 1956..... | 579.6 | 119.1 | 110.9 | 15.3 | 2.5 |

¹ Import and export data for wheat, oats, barley and rye, respectively, include flour in terms of wheat, rolled oats in terms of oats, malt and pot and pearl barley in terms of barley, and rye flour in terms of rye. ² Less than 50,000 bu. ³ Includes human food, seed requirements, industrial use, loss in handling and animal feed.

Wheat.—Supply and Disposition.—Stocks of wheat on hand at the beginning of the 1955-56 crop year were about 13 p.c. below those of the preceding year and represented a decline for the first time in seven years. Total crop-year supplies, consisting of carryover stocks plus 1955 production and imports, reached the unprecedented level of 1,056,000,000 bu. Carryover stocks at the end of the 1955-56 crop year were about 8 p.c. higher than at the end of the previous crop year but still lower than the record carryover of July 31, 1954.

21.—Production, Imports, Exports and Domestic Use of Wheat, Crop Years Ended July 31, 1950-56

NOTE.—Includes final revisions based on the 1956 Census.

(Millions of bushels)

| Item | 1949-50 | 1950-51 | 1951-52 | 1952-53 | 1953-54 | 1954-55 ^p | 1955-56 ^p |
|----------------------------------|--------------|--------------|--------------|--------------|----------------|----------------------|----------------------|
| Carryover, Aug. 1..... | 102.4 | 112.2 | 189.2 | 217.2 | 383.2 | 618.7 | 536.7 |
| Production..... | 366.0 | 466.5 | 553.6 | 701.9 | 634.0 | 332.0 | 519.2 |
| Imports ¹ | ₂ | ₂ | ₂ | ₂ | 0.5 | 0.2 | ₂ |
| Totals, Supply | 468.4 | 578.7 | 742.9 | 919.1 | 1,017.6 | 950.8 | 1,056.0 |
| Exports ¹ | 225.1 | 241.0 | 355.8 | 385.5 | 255.1 | 251.9 | 309.2 |
| Domestic use..... | 131.1 | 148.5 | 169.9 | 150.4 | 143.9 | 162.2 | 167.2 |
| Totals, Disposition | 356.2 | 389.5 | 525.7 | 535.9 | 399.0 | 414.1 | 476.4 |
| Carryover, July 31..... | 112.2 | 189.2 | 217.2 | 383.2 | 618.7 | 536.7 | 579.6 |

¹ Includes wheat flour in terms of wheat.

² Less than 50,000 bu.

Price and Marketing Arrangements.—The marketing of Western Canada wheat during the 1955-56 crop year was again conducted by the Canadian Wheat Board on a one-year pool basis, with the initial payment set at \$1.40 per bu., basis in store Fort William-Port Arthur or Vancouver. The initial payment for No. 1 C.W. Amber Durum was continued at \$1.50 per bu. An interim payment (announced Feb. 2, 1956) amounting to a total of about \$22,300,000 was paid in varying amounts per bushel on the higher grades delivered in 1954-55. Final payment (announced May 18, 1956) on the 318,439,061 bu. of wheat delivered to the 1954-55 pool averaged 12.461 cents per bu. with the total payment for No. 1 Northern, basis in store Fort William-Port Arthur or Vancouver, and prior to deduction of the Prairie Farm Assistance Act levy amounting to \$1.65066 per bu. No adjustment payments on 1955-56 deliveries were made during the crop year but on Jan. 30, 1957, an interim payment on the 1955-56 pool account for wheat was announced, amounting to 10 cents per bu. for all grades except milling grades of Durum for which the interim payment was 25 cents. The full amount of this payment was about \$37,300,000. The final payment on the 1955-56 pool was announced on May 15, 1957, and averaged 11.912 cents per bu. on farmers' deliveries of 352,200,000 bu. Prior to deduction of the Prairie Farm Assistance Act levy, the net price realized by producers in the 1955-56 pool for No. 1 Northern Wheat, basis in store Fort William-Port Arthur or Vancouver, was \$1.60893 per bu.

The crop year 1955-56 coincided with the third and final year of the second International Wheat Agreement. Under its provisions, Canada had a guaranteed export quota of 153,100,000 bu. for 1955-56 and, according to the report on the year's transactions, Canadian sales under the Agreement totalled 75,600,000 bu. These sales continued to be quite widely distributed; 26 of the 44 importing countries included in the pact purchased wheat and/or flour from Canada. The larger purchasers were the Federal Republic of Germany, 17,600,000 bu.; Japan, 15,900,000 bu.; Belgium, 7,500,000 bu.; Switzerland, 5,500,000 bu.; and the Union of South Africa, 5,000,000 bu. The greater part of Canada's wheat trade in 1955-56 was carried on in Class II wheat (wheat exported outside the provisions of the International Wheat Agreement). The United Kingdom continued as the leading importer of Class II wheat, shipments to that country accounting for 96,800,000 bu. of wheat as grain and the equivalent of an additional 12,700,000 bu. in the form of wheat flour. The combined Canadian exports of 309,200,000 bu. of wheat and flour went to 87 countries, territories and colonies during the crop year.

During most of 1955-56, domestic sales of all classes of wheat were made at the same prices as those prevailing for wheat sold under the International Wheat Agreement. From Aug. 1 to Sept. 6, 1955, an additional 10 cents per bu. over the IWA price was charged on domestic sales of Durum. During the entire 1955-56 crop year, Class II prices for all grades of wheat, except Durum, coincided with the IWA and domestic quotations. The average Class II price received for No. 1 C.W. Amber Durum during the crop year was 59½ cents per bu. above the comparable IWA average price of 203½ cents.

Exports of wheat and flour (in terms of wheat) during 1955-56 amounted to 309,200,000 bu., exceeding by 23 p.c. the 251,900,000 bu. exported in 1954-55. The 1955-56 total exports consisted of 269,200,000 bu. of wheat as grain and the equivalent of 40,000,000 bu. of wheat flour. Total domestic (commercial and farm) disappearance of wheat in 1955-56 amounted to 167,200,000 bu. surpassing both the 1954-55 figure of 162,200,000 bu. and the ten-year (1945-46—1954-55) average of 150,100,000 bu. The carryover at July 31, 1956, amounted to 579,600,000 bu. with a larger crop in 1955 more than offsetting the combined effect of a reduced carryover at July 31, 1955, and higher levels of both exports and domestic disappearance.

Other Grains.—Supply and Disposition.—Preliminary data on supply and disposition of the major Canadian grains for the crop year 1955-56 together with revised data for 1954-55 are set out in Table 20. Although July 31, 1955, carryover stocks of each of the five grains—wheat, oats, barley, rye and flaxseed—were below the comparable 1954 levels, production of these grains in 1955, with the exception of rye, was sufficiently large to bring the total supply of each of the grains in 1955-56 above 1954-55 crop-year level.

Reflecting decreases in exports of both oats and barley, the combined export movement of oats, barley, rye and flaxseed, plus the grain equivalent of certain products, amounted to 97,300,000 bu., representing a decrease of 18 p.c. from the 1954-55 level of 118,800,000 bu. Exports of oats, including rolled oats and oatmeal, dropped sharply for the second successive year—from 70,700,000 bu. in 1953-54 to 22,200,000 bu. in 1954-55 and 4,100,000 bu. in 1955-56. The 68,700,000 bu. of barley and its products exported in 1955-56 was 15 p.c. below the 1954-55 level but was still the fifth largest amount on record. Rye exports at 12,900,000 bu. were above the 9,300,000 bu. exported in 1954-55. Exports of flaxseed amounted to 11,600,000 bu. and exceeded by 83 p.c. the 1954-55 figure of 6,300,000 bu.

Despite increased domestic disappearance of both oats and barley, the larger available supplies of these two grains, coupled with smaller exports, resulted in July-end carryovers exceeding their respective 1955 totals. With available supplies of rye showing relatively little change and domestic disappearance only fractionally decreased, the higher level of exports resulted in a 17-p.c. drop in the July 31, 1956, carryover of this grain. Although both exports and domestic use of flaxseed increased during the 1955-56 crop year, the effect of substantially greater supplies was sufficient to cause July-end stocks to be more than double those of the preceding year.

Price and Marketing Arrangements.—The Marketing of Western Canada oats and barley was again carried on through compulsory crop-year pools administered by the Canadian Wheat Board. Initial payments for both these grains were the same as in 1954-55, *i.e.*, on the basis of 65 cents per bu. for No. 2 C.W. oats and 96 cents per bu. for No. 3 C.W. Six-Row barley, in store Fort William-Port Arthur. No interim or adjustment payments were made on either grain during the crop year but final payments for both were announced in November 1956. Final payment on the 113,866,728 bu. of barley delivered to the 1955-56 pool averaged 13.362 cents per bu. after deduction of payment expenses and the 1-p.c. Prairie Farm Assistance Act levy. Total prices (basis in store Fort William-Port Arthur) realized by producers for representative grades after deducting carrying charges in country and terminal elevators, Board administrative costs, etc., but before deducting the 1-p.c. PFAA levy, were \$1.08848 per bu. for No. 3 C.W. Six-Row barley and \$0.99324 for No. 1 Feed barley. Final payment on the 71,387,016 bu. of oats delivered to the 1955-56 pool averaged 11.444 cents per bu. Total prices realized by producers for representative grades, on the same basis as for barley, were \$0.79846 for No. 2 C.W. and \$0.71441 for No. 1 Feed oats.

Preliminary data indicate that some 12,500,000 bu. of rye and 15,800,000 bu. of flaxseed were delivered by farmers in Western Canada in 1955-56, both of these grains being sold on the open market. In Eastern Canada, where commercial grain production is on a much smaller scale, all grain continued to be sold on the open market.

Miscellaneous Grain Trade Statistics

Grain Handled at Eastern Elevators.—The volume of grain handled at eastern elevators in the 1955-56 crop year was somewhat higher than in the preceding year. Total receipts of the five grains amounted to 488,852,575 bu., 2 p.c. greater than in 1954-55, while total shipments, at 502,749,758, were 5 p.c. higher. The major part of the increase was accounted for by larger quantities of wheat handled, although rye and flaxseed also contributed. Declines occurred in receipts and shipments of oats and barley.

22.—Canadian Grain Handled at Eastern Elevators, Crop Years Ended July 31, 1952-56

NOTE.—Figures for the crop years ended 1922-51 are given in the corresponding table of previous Year Books beginning with the 1931 edition.

| Item and Crop Year | Wheat | Oats | Barley | Rye | Flaxseed | Total Grain |
|--------------------|-------------|------------|-------------|------------|------------|-------------|
| | bu. | bu. | bu. | bu. | bu. | bu. |
| Receipts— | | | | | | |
| 1951-52..... | 380,847,530 | 43,117,243 | 113,942,213 | 7,803,517 | 6,913,172 | 552,623,675 |
| 1952-53..... | 438,086,442 | 49,827,694 | 157,847,406 | 8,078,375 | 11,211,224 | 665,051,141 |
| 1953-54..... | 229,955,136 | 41,756,777 | 84,232,908 | 1,325,338 | 10,431,224 | 367,701,383 |
| 1954-55..... | 293,901,551 | 48,141,076 | 111,800,738 | 14,346,219 | 12,975,483 | 481,165,067 |
| 1955-56..... | 333,237,962 | 43,029,962 | 72,647,433 | 18,472,661 | 21,464,557 | 488,852,575 |
| Shipments— | | | | | | |
| 1951-52..... | 358,201,436 | 42,983,657 | 109,327,850 | 7,644,936 | 6,642,468 | 524,800,347 |
| 1952-53..... | 427,422,896 | 49,870,352 | 162,834,639 | 7,255,950 | 11,141,489 | 658,525,326 |
| 1953-54..... | 211,822,877 | 42,825,733 | 86,875,792 | 1,944,955 | 10,712,103 | 354,181,460 |
| 1954-55..... | 292,069,170 | 46,730,624 | 111,432,900 | 14,239,919 | 13,047,259 | 477,519,872 |
| 1955-56..... | 350,307,242 | 41,909,092 | 70,485,188 | 18,632,238 | 21,415,998 | 502,749,758 |

Grain Inspections.—The volume of wheat, oats, barley, rye, flaxseed, buckwheat, corn and mixed grain inspected by the Board of Grain Commissioners for Canada in the crop year 1954-55 amounted to 538,608,308 bu., 11 p.c. below the 1953-54 total of 602,095,068 bu.; in the 1955-56 crop the volume increased by about 4 p.c. to a level of 560,568,263 bu. Quantities of the various grains inspected at eastern and western points, as well as inspections of peas, soybeans, beans, rapeseed, mustard seed and screenings, appear in Table 23.

23.—Quantities of Grain and Other Field Crops Inspected, Crop Years Ended July 31, 1955 and 1956

| Crop | 1954-55 | | | 1955-56 | | |
|-------------------|------------------|------------------|-------------|------------------|------------------|-------------|
| | Western Division | Eastern Division | Total | Western Division | Eastern Division | Total |
| | bu. | bu. | bu. | bu. | bu. | bu. |
| Wheat..... | 310,657,883 | 6,512,287 | 317,170,170 | 341,137,953 | 3,185,962 | 344,323,915 |
| Spring wheat..... | 309,807,038 | 10,647 | 309,817,685 | 339,039,733 | 6,000 | 339,045,733 |
| Winter wheat..... | 1,450,845 | 6,501,640 | 7,952,485 | 2,048,220 | 3,179,962 | 5,228,182 |
| Oats..... | 71,262,239 | 55,233 | 71,317,472 | 55,038,770 | 43,458 | 55,082,228 |
| Barley..... | 113,625,546 | 1,156,627 | 114,782,173 | 112,480,614 | 416,640 | 112,897,254 |
| Rye..... | 13,498,552 | 58,200 | 13,556,752 | 12,380,049 | 70,870 | 12,450,919 |
| Flaxseed..... | 10,045,758 | 20,000 | 10,065,758 | 18,194,329 | 22,500 | 18,216,829 |
| Buckwheat..... | 296,262 | 119,931 | 416,193 | 274,486 | 20,702 | 295,188 |
| Corn..... | 736,238 | 9,796,261 | 10,532,499 | 452,620 | 16,360,074 | 16,812,694 |
| Mixed grain..... | 755,264 | 12,027 | 767,291 | 480,411 | 8,825 | 489,236 |
| | cars | | | cars | | |
| Peas..... | 162 | — | .. | 57 | — | .. |
| Soybeans..... | 1 | 4,157,512 | .. | — | 5,776,444 | 5,776,444 |
| Beans..... | — | 241,375 | 241,375 | — | 378,238 | 378,238 |
| Rapeseed..... | 173 | — | .. | 642 | — | 1,193,473 |
| Mustard seed..... | — | — | .. | 18 | — | .. |
| Screenings..... | 328 | — | .. | 322 | — | .. |

Lake Shipments of Grain.—The 1955 navigation season opened officially on Apr. 20 and closed on Dec. 15. During that season, total vessel shipments of wheat, oats, barley, rye, flaxseed and buckwheat amounted to 262,551,436 bu., somewhat below the 1954 total of 292,829,921 bu. During the 1956 season of navigation, which opened on Apr. 11 and closed on Dec. 17, 367,167,969 bu. of grain were shipped by lake vessel.

**24.—Lake Shipments of Canadian Grain from Fort William-Port Arthur,
Season of Navigation 1955 and 1956**

| Grain | 1955 | | | 1956 | | |
|------------------------|--------------------|-------------------|------------------------------|--------------------|-------------------|------------------------------|
| | To Canadian Ports | To U.S. Ports | Total Shipments ¹ | To Canadian Ports | To U.S. Ports | Total Shipments ¹ |
| Wheat..... bu. | 137,390,474 | 4,209,401 | 141,599,875 | 199,428,841 | 6,687,997 | 206,135,505 |
| Oats..... " | 31,110,355 | 791,761 | 31,902,116 | 42,424,872 | 5,091,915 | 47,516,787 |
| Barley..... " | 48,088,680 | 19,816,337 | 67,905,017 | 62,065,011 | 29,878,371 | 91,990,410 |
| Rye..... " | 8,259,433 | 2,825,230 | 11,084,663 | 7,693,781 | 3,376,703 | 11,070,484 |
| Flaxseed..... " | 9,969,627 | — | 9,969,627 | 10,263,835 | 28,231 | 10,292,066 |
| Buckwheat..... " | 90,138 | — | 90,138 | 121,313 | 41,404 | 162,717 |
| Totals..... bu. | 234,908,707 | 27,642,729 | 262,551,436 | 321,997,653 | 45,104,621 | 367,167,969 |
| Sample grain..... lb. | 5,506,150 | — | 5,506,150 | 9,036,051 | 952,150 | 9,988,201 |
| Screenings..... tons | 34,924 | 47,027 | 81,951 | 56,752 | 52,135 | 108,887 |

¹ Includes following shipments direct to Europe: barley 158,337 bu. in 1955; wheat 18,667 bu. and barley 47,028 bu. in 1956.

Wheat Flour.—After reaching a peak of 56,033,000 cwt. in 1946-47, Canadian wheat flour production dropped to a postwar low of 39,708,000 cwt. on 1949-50. Production in each of the following three crop years was only slightly below the five-year (1945-46—1949-50) average of 47,012,000 cwt. A rather sharp drop occurred in 1953-54, however, and further slight declines occurred in both 1954-55 and 1955-56 when production amounted to 40,607,000 cwt. and 40,149,000 cwt., respectively. During the crop year 1955-56, 73.7 p.c. of milling capacity was utilized compared with 71.7 p.c. in 1954-55.

Exports of wheat flour during recent years have followed approximately the same pattern as production, dropping from the 1946-47 peak of 33,117,000 cwt. to 17,391,000 cwt. in 1955-56. The 1955-56 exports of wheat flour amounted to approximately 43.3 p.c. of production, about the same as in 1954-55 but a slightly smaller proportion than was exported during the preceding few crop years.

**25.—Wheat Milled for Flour, and Production and Exports of Wheat Flour, Five-Year
Averages 1936-50 and Crop Years Ended July 31, 1951-56**

| Crop Year (Aug. 1-July 31) | Wheat Milled for Flour | Wheat Flour Production | Wheat Flour Exports | |
|----------------------------|------------------------|------------------------|---------------------|--------------------|
| | | | Amount | P.C. of Production |
| | '000 bu. | cwt. | cwt. | |
| Av. 1935-36 — 1939-40..... | 67,845 | 29,405,451 | 9,603,941 | 32.7 |
| Av. 1940-41 — 1944-45..... | 99,705 | 43,908,245 | 23,699,546 | 54.0 |
| Av. 1945-46 — 1949-50..... | 107,330 | 47,011,540 | 25,819,721 | 54.9 |
| 1950-51..... | 106,748 | 46,315,153 | 24,356,912 | 52.6 |
| 1951-52..... | 104,494 | 44,771,184 | 22,258,324 | 49.7 |
| 1952-53..... | 106,727 | 46,776,625 | 24,609,199 | 52.6 |
| 1953-54..... | 91,855 | 40,769,909 | 20,142,824 | 49.4 |
| 1954-55..... | 92,407 | 40,606,599 | 17,692,945 | 43.6 |
| 1955-56..... | 91,770 | 40,148,750 | 17,391,300 | 43.3 |

Subsection 2.—Livestock Marketings*

Commercial marketings of livestock were greater in 1956 than in 1955. Increases in total movement through recorded commercial channels amounted to 8.7 p.c. in cattle, 7.0 p.c. in calves, 0.4 p.c. in sheep and lambs, and 0.7 p.c. in hogs. Slaughter classes of

* For more detailed information, see DBS annual report *Live Stock and Animal Products Statistics*, and the Department of Agriculture publication *Livestock Market Review*. Statistics of livestock and poultry are given at pp. 430-432 and 438-439, respectively, of this volume.

steers sold at stockyards and packing plants increased 12 p.c. over 1955 to a record 783,138. Sales of the heavier grades (over 1,000 lb.) increased 14 p.c. and sales of steers up to 1,000 lb. increased nearly 10 p.c. Heifer gradings increased 10.6 p.c. and cows increased 11.0 p.c. over the previous year. Fed calves decreased 2.5 p.c. Steers constituted the same proportion (35.1 p.c.) of slaughter cattle in 1956 as in 1955. In 1956 shipments of feeder cattle and calves from yards and plants, and on through-billing to Canadian country points outside the province of origin totalled 436,489 head, an increase of 25 p.c. over 1955. There was little change in the proportion of hogs graded into each category. Grade A hogs made up 28.5 p.c. of gradings in 1956 compared to 27.1 p.c. in 1955, while Grade B hogs constituted 50.6 p.c. against 51.9 p.c. in 1955. Grade C hogs, at 9.7 p.c. of total gradings, compared with 9.6 p.c. in 1955, and Grade D remained at 0.5 p.c. All provinces except Manitoba indicated improved quality as measured by the proportion classified as Grade A. The Maritimes again led the provinces in the percentage of A gradings and also in the increase of A gradings in 1956. The price spread between Grades A and B1 hogs remained at \$1 throughout 1955 and 1956. There was little change in the number of sheep and lambs marketed—554,808 in 1956 and 555,694 in 1955. About 59 p.c. of the lambs graded alive in 1956 were "Good", as compared to 61 p.c. in 1955.

26.—Livestock Marketed at Stockyards and Packing Plants by Grade 1952-56

(Exclusive of Newfoundland)

| Livestock | 1952 | 1953 | 1954 | 1955 | 1956 |
|-----------------------------------|------------------|------------------|------------------|------------------|------------------|
| | No. | No. | No. | No. | No. |
| Cattle | 1,405,870 | 1,701,004 | 1,938,672 | 1,992,818 | 2,235,443 |
| Steers up to 1,000 lb.— | | | | | |
| Choice..... | 27,012 | 37,346 | 55,973 | 66,813 | 82,296 |
| Good..... | 66,723 | 86,060 | 98,113 | 104,700 | 107,334 |
| Medium..... | 86,047 | 110,907 | 132,724 | 122,454 | 126,516 |
| Common..... | 60,879 | 85,947 | 90,091 | 60,360 | 73,081 |
| Steers over 1,000 lb.— | | | | | |
| Choice..... | 106,978 | 114,746 | 125,477 | 143,539 | 152,219 |
| Good..... | 107,913 | 125,963 | 112,467 | 120,835 | 143,027 |
| Medium..... | 65,871 | 77,202 | 75,453 | 67,835 | 82,022 |
| Common..... | 18,269 | 27,705 | 22,583 | 13,021 | 16,643 |
| Heifers— | | | | | |
| Choice..... | 14,757 | 14,253 | 16,261 | 25,666 | 28,773 |
| Good..... | 60,857 | 64,803 | 75,071 | 78,030 | 76,949 |
| Medium..... | 79,349 | 86,845 | 107,370 | 113,593 | 124,069 |
| Common..... | 54,723 | 70,153 | 82,146 | 74,210 | 92,552 |
| Fed calves..... | 99,389 | 146,323 | 172,810 | 174,017 | 169,635 |
| Cows..... | 339,878 | 386,785 | 474,775 | 526,290 | 584,402 |
| Bulls..... | 73,642 | 83,220 | 77,566 | 73,865 | 73,846 |
| Stocker and feeder steers..... | 112,273 | 143,828 | 177,857 | 193,067 | 240,552 |
| Stock cows and heifers..... | 27,164 | 34,341 | 38,695 | 34,174 | 61,281 |
| Milkers and springers..... | 4,146 | 4,577 | 3,240 | 349 | 246 |
| Calves | 630,624 | 819,921 | 899,887 | 906,623 | 963,191 |
| Veal..... | | | | | |
| Good and choice..... | 173,117 | 232,820 | 233,671 | 275,547 | 244,774 |
| Common and medium..... | 357,857 | 446,111 | 534,717 | 486,092 | 558,063 |
| Grass..... | 50,448 | 72,973 | 59,005 | 76,508 | 87,726 |
| Stocker..... | 49,202 | 68,017 | 72,494 | 68,476 | 72,628 |
| Hog Carcasses | 6,698,642 | 5,002,814 | 5,078,715 | 5,916,584 | 5,959,605 |
| "A"..... | 1,909,091 | 1,363,720 | 1,317,890 | 1,603,070 | 1,696,209 |
| "B"..... | 3,464,597 | 2,673,573 | 2,723,127 | 3,071,901 | 3,018,166 |
| "C"..... | 435,004 | 392,410 | 463,415 | 568,724 | 577,766 |
| "D"..... | 29,803 | 23,180 | 21,663 | 28,899 | 30,897 |
| Heavies..... | 158,456 | 115,817 | 112,812 | 115,895 | 108,720 |
| Extra heavies..... | 133,552 | 92,469 | 88,425 | 84,039 | 85,451 |
| Lights..... | 163,014 | 87,550 | 71,667 | 117,854 | 123,008 |
| Sows..... | 345,635 | 207,171 | 234,189 | 274,672 | 266,091 |
| Injured, ridglings and stags..... | 58,890 | 46,924 | 45,527 | 51,530 | 53,297 |

26.—Livestock Marketed at Stockyards and Packing Plants by Grade 1952-56—concluded

| Livestock | 1952 | 1953 | 1954 | 1955 | 1956 |
|---|----------------|----------------|----------------|----------------|----------------|
| | No. | No. | No. | No. | No. |
| Lambs and Sheep Graded Alive | 505,878 | 520,019 | 539,627 | 555,694 | 554,808 |
| Lambs— | | | | | |
| Good..... | 300,398 | 306,397 | 323,752 | 340,786 | 328,261 |
| Common..... | 75,423 | 95,629 | 103,137 | 108,440 | 109,926 |
| Bucks..... | 64,375 | 62,336 | 51,726 | 43,138 | 49,178 |
| Feeders..... | 11,696 | 10,496 | 16,002 | 18,160 | 21,938 |
| Sheep— | | | | | |
| Good..... | 28,965 | 23,364 | 22,474 | 23,510 | 23,014 |
| Common..... | 25,021 | 21,797 | 22,536 | 21,660 | 22,491 |
| Lamb and Sheep Carcasses | 25,561 | 28,441 | 32,937 | 40,337 | 49,688 |
| Lambs— | | | | | |
| "A"..... | 9,553 | 13,502 | 14,998 | 16,055 | 17,616 |
| "B"..... | 6,033 | 6,268 | 7,284 | 10,345 | 13,050 |
| "C"..... | 4,671 | 3,971 | 5,147 | 6,724 | 10,281 |
| "D"..... | 2,156 | 1,457 | 1,885 | 2,354 | 2,621 |
| "E"..... | 617 | 249 | 463 | 503 | 705 |
| Sheep..... | 2,531 | 2,994 | 3,140 | 4,356 | 5,415 |

27.—Livestock Marketed at Public Stockyards, Packing Plants and Direct for Export by Province 1955 and 1956
(Exclusive of Newfoundland)

| Year and Livestock | Maritime Provinces | Quebec | Ontario | Manitoba | Saskatchewan | Alberta | British Columbia | Total |
|--|--------------------|------------------|------------------|----------------|----------------|------------------|------------------|------------------|
| | No. | No. | No. | No. | No. | No. | No. | No. |
| 1955 | | | | | | | | |
| Cattle | 27,351 | 106,092 | 707,879 | 186,127 | 399,071 | 584,745 | 59,060 | 2,070,325 |
| Totals to stockyards..... | 171 | 51,231 | 400,838 | 112,693 | 281,423 | 411,594 | 18,206 | 1,276,156 |
| Direct to packers..... | 25,911 | 51,327 | 270,939 | 72,810 | 98,812 | 159,294 | 37,569 | 716,662 |
| Direct for export..... | 1,254 | 3,533 | 36,053 | 83 | 442 | 4,682 | 2,259 | 48,306 |
| Country points in other provinces ¹ | 15 | 1 | 49 | 541 | 18,394 | 9,175 | 1,026 | 29,201 |
| Calves | 26,912 | 306,379 | 279,017 | 82,231 | 96,680 | 133,821 | 9,592 | 934,632 |
| Totals to stockyards..... | 7,843 | 102,510 | 117,139 | 36,138 | 61,664 | 66,927 | 2,816 | 395,037 |
| Direct to packers..... | 18,310 | 203,738 | 157,918 | 45,912 | 21,178 | 57,963 | 6,567 | 511,586 |
| Direct for export..... | 759 | 131 | 3,960 | 36 | 3 | 59 | 13 | 4,961 |
| Country points in other provinces ¹ | — | — | — | 145 | 13,835 | 8,872 | 196 | 23,048 |
| Hogs | 138,348 | 1,057,236 | 1,998,742 | 435,517 | 562,412 | 1,691,193 | 40,810 | 5,924,258 |
| Totals to stockyards..... | — | 117,641 | 176,667 | 76,370 | 108,387 | 251,996 | 1,037 | 732,092 |
| Direct to packers..... | 137,593 | 939,578 | 1,820,647 | 359,137 | 453,972 | 1,433,891 | 39,668 | 5,184,486 |
| Direct for export..... | 755 | 17 | 1,428 | 10 | 53 | 5,306 | 105 | 7,674 |
| Sheep and Lambs | 39,534 | 137,305 | 182,732 | 36,792 | 47,014 | 147,350 | 25,550 | 616,277 |
| Totals to stockyards..... | 3,290 | 27,649 | 63,195 | 10,522 | 21,510 | 44,102 | 2,147 | 172,415 |
| Direct to packers..... | 36,097 | 109,656 | 117,341 | 26,265 | 14,653 | 96,277 | 23,327 | 423,616 |
| Direct for export..... | 147 | — | 2,196 | 5 | 43 | 4,833 | 26 | 7,250 |
| Country points in other provinces ¹ | — | — | — | — | 10,808 | 2,138 | 50 | 12,996 |
| Total Inward Movement ² | | | | | | | | |
| Cattle..... | 169 | 1,558 | 140,886 | 11,169 | 26,399 | 106,905 | 1,626 | 288,712 |
| Calves..... | 45 | 381 | 51,921 | 1,212 | 5,694 | 26,568 | 663 | 86,484 |
| Sheep and lambs..... | 464 | — | 16,442 | 2,441 | 1,438 | 13,835 | 1,722 | 36,342 |

For footnotes, see end of table, p. 956.

**27.—Livestock Marketed at Public Stockyards, Packing Plants and Direct for Export
by Province 1955 and 1956—concluded**

| Year and Livestock | Maritime Provinces | Quebec | Ontario | Manitoba | Saskatch- ewan | Alberta | British Columbia | Total |
|---|-----------------------|------------------|------------------|----------------|-------------------|------------------|---------------------|------------------|
| | No. | No. | No. | No. | No. | No. | No. | No. |
| 1956 | | | | | | | | |
| Cattle | 31,109 | 111,913 | 743,170 | 203,350 | 439,901 | 712,975 | 81,805 | 2,324,223 |
| Totals to stockyards..... | 115 | 57,807 | 396,206 | 129,178 | 313,654 | 491,200 | 26,584 | 1,414,744 |
| Direct to packers..... | 30,447 | 50,865 | 305,301 | 74,050 | 103,594 | 208,628 | 47,814 | 820,699 |
| Direct for export..... | 523 | 3,180 | 41,584 | 43 | 1 | 164 | 1,837 | 47,332 |
| Country points in other provinces ¹ | 24 | 61 | 79 | 79 | 22,652 | 12,983 | 5,570 | 41,448 |
| Calves | 28,856 | 322,684 | 280,924 | 89,477 | 104,974 | 146,259 | 16,526 | 989,700 |
| Totals to stockyards.... | 4,924 | 109,888 | 106,142 | 43,165 | 70,495 | 69,387 | 4,893 | 408,894 |
| Direct to packers..... | 23,188 | 212,755 | 169,837 | 46,259 | 21,465 | 70,035 | 10,758 | 554,297 |
| Direct for export..... | 744 | 41 | 4,945 | 3 | 352 | 80 | 10 | 6,175 |
| Country points in other provinces ¹ | — | — | — | 50 | 12,662 | 6,757 | 865 | 20,334 |
| Hogs | 124,875 | 1,060,096 | 2,197,088 | 387,908 | 576,806 | 1,571,929 | 42,119 | 5,960,821 |
| Totals to stockyards.... | — | 121,173 | 215,478 | 79,081 | 97,043 | 201,521 | 1,036 | 715,332 |
| Direct to packers..... | 124,573 | 938,917 | 1,980,828 | 308,827 | 479,761 | 1,370,315 | 41,052 | 5,244,273 |
| Direct for export..... | 302 | 6 | 782 | — | 2 | 93 | 31 | 1,216 |
| Sheep and Lambs | 40,777 | 137,699 | 181,337 | 33,195 | 42,028 | 158,566 | 27,348 | 620,950 |
| Totals to stockyards.... | 2,958 | 26,702 | 67,049 | 11,531 | 20,390 | 43,740 | 4,139 | 176,509 |
| Direct to packers..... | 37,735 | 110,984 | 111,721 | 21,647 | 13,026 | 109,716 | 23,158 | 427,987 |
| Direct for export..... | 84 | 13 | 2,567 | 17 | 45 | 1,461 | 51 | 4,238 |
| Country points in other provinces ¹ | — | — | — | — | 8,567 | 3,649 | — | 12,216 |
| Total Inward Move- ment ² | | | | | | | | |
| Cattle..... | 169 | 1,477 | 197,590 | 6,736 | 32,811 | 147,374 | 1,451 | 387,608 |
| Calves..... | 45 | 239 | 42,298 | 758 | 5,977 | 32,573 | 428 | 82,318 |
| Sheep and lambs..... | 599 | 216 | 18,823 | 2,238 | 1,757 | 14,955 | 315 | 38,903 |

¹ Livestock billed through stockyards to country points outside province of origin. ² Movement to farms from stockyards and plants on through-billings from country points in one province to country points in another province.

Section 3.—Warehousing and Cold Storage*

Warehousing ranks high among the means by which the utilities of 'place', 'time' and 'possession' are added to the products of industry. Its importance has been emphasized in modern times because of the introduction of cold storage methods in the conservation of perishable foods.

The presentation of warehousing statistics is difficult because it is not an easy matter to define clearly what are to be regarded as stocks in storage. In these days of complicated business relationships and especially since the rise of the department store and chain store as characteristic institutions in the retail merchandising field, it often happens that warehousing is carried on in close relationship with merchandising. However, if the strict economic definition of warehousing is adopted, then this term should be restricted to those facilities that add the utility of 'time' to the 'form' utilities that are the product of the extraction and manufacturing industries. Because the warehouses established in close connection with retail trade are more often than not convenient places for the temporary storage of goods in process of transfer from the manufacturer or wholesaler to the consumer, they are not, in the strict economic sense, services that add the utility of 'time' to commodities already worked up into 'form'. As some clear line must be drawn and because separate statistics of the latter branch of storage are not available, it is considered practicable to interpret warehousing in this way.

* Information supplied by various Divisions of the Departments of Agriculture, Fisheries, Mines and Technical Surveys, and National Revenue and of the Dominion Bureau of Statistics.

The statistics of warehousing are gathered together under this Section. Subsection 1 presents statistics of the licensed storage of grain. Subsection 2 deals with cold storage facilities without which perishable foods such as meats, dairy products, fish and fruits could not be exchanged or distributed on a wide scale; it includes also figures of stocks of food on hand. Subsection 3 deals with the storage of petroleum and its products, and Subsection 4 with public warehouses and customs warehouses. The facilities that specialize in the storage of tobacco and alcoholic liquors are analysed in Subsection 5. These bonded warehouses, as they are called, are under the strict surveillance of Federal Government excise officers, who supervise all movements into and from such places of storage.

Subsection 1.—Licensed Grain Storage

Total grain storage capacity in Canada, licensed under the provisions of the Canada Grain Act by the Board of Grain Commissioners for Canada at Dec. 1, 1955, amounted to 599,325,000 bu., an increase of 18,356,000 bu. over the level at Dec. 1, 1954. Some 14,650,000 bu. of this increase occurred in western country elevators. Licensed grain storage capacity in Canada reached a peak of 603,000,000 bu. at Dec. 1, 1943, but, following the disposal of heavy wartime stocks, declined to 428,000,000 bu. at Dec. 1, 1947. Since that date capacity has increased each year.

In contrast to 1954, grain yields were well above average in 1955 and were sufficient to offset by a considerable margin the decline in carryover stocks as at July 31. With bumper crops being harvested in four of the preceding five years, the pressure on Canada's grain storage and handling facilities remained unrelieved. As a result, farmers' marketings of western grain continued to be governed to a considerable extent by space made available in country elevators as grain moved forward into domestic and export channels. As indicated in Table 28, there was a relatively small variation in the proportion of elevator space occupied at Dec. 1, Mar. 30 and July 31 in the 1955-56 crop year. Information is given in the table for only three dates in the crop year, but weekly data on stocks of grain in various commercial positions may be obtained from the DBS bulletin *Grain Statistics Weekly*.

28.—Licensed Grain Storage Capacity and Grain in Store, Crop Years 1954-55 and 1955-56

NOTE.—Because these figures are exclusive of stocks in transit or in Eastern Canada mills, they are lower than those shown in Table 22, p. 952.

| Crop Year and Storage Position | Licensed Storage Capacity | Canadian Grain in Licensed Storage | | | | Proportion of Licensed Storage Capacity Occupied | | |
|---|---------------------------------|--|------------------|-------------------------------|-----------------|--|-------------------------------|--|
| | Dec. 1, 1954 | Dec. 1, 1954 | Mar. 30, 1955 | July 31, 1955 ¹ | Dec. 1, 1954 | Mar. 30, 1955 | July 31, 1955 ¹ | |
| 1954-55 | '000 bu. | '000 bu. | '000 bu. | '000 bu. | p.c. | p.c. | p.c. | |
| Western country..... | 338,174 | 247,333 | 246,479 | 273,525 | 73.1 | 72.9 | 80.9 | |
| Interior, private and mill..... | 20,725 | 9,180 | 10,101 | 9,090 | 44.3 | 48.7 | 43.9 | |
| Interior, terminals..... | 20,600 | 18,875 | 18,673 | 18,038 | 91.6 | 90.6 | 87.6 | |
| Pacific coast..... | 20,106 | 15,081 | 11,453 | 9,769 | 75.0 | 57.0 | 48.6 | |
| Fort William-Port Arthur..... | 90,517 | 51,106 | 76,635 | 58,524 | 56.5 | 84.7 | 64.7 | |
| Georgian Bay and upper Lake ports... | 36,641 | 33,394 | 9,741 | 32,995 | 91.1 | 26.6 | 90.0 | |
| Lower Lake and upper St. Lawrence ports..... | 19,100 | 14,390 | 9,518 | 14,495 | 75.3 | 49.8 | 75.9 | |
| Lower St. Lawrence ports..... | 27,912 | 21,118 | 17,296 | 21,675 | 75.7 | 62.0 | 77.7 | |
| Maritime ports ¹ | 7,193 | 6,227 | 2,793 | 6,031 | 86.6 | 38.8 | 83.8 | |
| Totals, 1954-55..... | 580,969 | 416,704 | 402,688 | 444,143 | 71.7 | 69.3 | 76.4 | |

¹ Excludes Newfoundland.

**28.—Licensed Grain Storage Capacity and Grain in Store, Crop Years
1954-55 and 1955-56—concluded**

| Crop Year and Storage Position | Licensed Storage Capacity | Canadian Grain in Licensed Storage | | | | Proportion of Licensed Storage Capacity Occupied | | |
|---|---------------------------------|--|------------------|------------------|------------------|--|------------------|--|
| | Dec. 1, 1955 | Nov. 30, 1955 | Mar. 28, 1956 | July 31, 1956 | Nov. 30, 1955 | Mar. 28, 1956 | July 31, 1956 | |
| 1955-56 | '000 bu. | '000 bu. | '000 bu. | '000 bu. | p.c. | p.c. | p.c. | |
| Western country..... | 352,824 | 270,384 | 251,242 | 295,782 | 76.6 | 71.2 | 83.8 | |
| Interior, private and mill..... | 20,595 | 8,899 | 8,809 | 8,526 | 43.2 | 42.8 | 41.4 | |
| Interior, terminals..... | 23,100 | 19,615 | 18,608 | 18,559 | 84.9 | 80.6 | 80.3 | |
| Pacific coast..... | 20,106 | 7,124 | 14,174 | 12,349 | 35.4 | 70.5 | 61.4 | |
| Fort William-Port Arthur..... | 90,517 | 51,228 | 71,993 | 46,544 | 56.6 | 79.5 | 51.4 | |
| Georgian Bay and upper Lake ports.. | 36,641 | 31,907 | 7,724 | 30,064 | 87.1 | 21.1 | 82.1 | |
| Lower Lake and upper St. Lawrence ports..... | 20,400 | 14,769 | 10,572 | 14,483 | 72.4 | 51.8 | 71.0 | |
| Lower St. Lawrence ports..... | 27,912 | 20,622 | 14,986 | 16,347 | 73.9 | 53.7 | 58.6 | |
| Maritime ports ¹ | 7,229 | 6,680 | 3,119 | 365 | 92.4 | 43.1 | 5.0 | |
| Totals, 1955-56..... | 599,325 | 431,227 | 401,228 | 443,019 | 72.0 | 66.9 | 73.9 | |

¹ Excludes Newfoundland.

Subsection 2.—Cold Storage and Storage of Foods

Cold Storage Warehouses.—Under the Cold Storage Act (R.S.C. 1952, c. 52), as amended (R.S.C. 1952, c. 313), subsidies are granted by the Federal Government to encourage the construction and equipment of cold storage warehouses open to the public. The Act is administered by the Department of Agriculture.

There are five classifications of cold storage warehouses in Canada: (1) public warehouses that store foods and food products and where the entire space is open to the public; (2) semi-public, or those that store foods and where part of the space is retained for the products of the owner and the remainder is available to the public; (3) private, or those that store foods and food products and allot no space to the public, a classification that includes refrigerated space in connection with abattoirs, creameries, dairies, cheese factories and wholesale and retail distributing warehouses; (4) locker plant, where the total space is occupied by lockers for rental to the public and where food and food products may be cut, processed, chilled and frozen for storage in lockers; and (5) bait depots, where space is used solely or principally for the freezing and storing of bait for the use of fishermen.

No hard and fast rule can be laid down for distinguishing between public and private warehouses. In general those owned and operated by firms trading in the goods stored in the warehouse are considered as private, although most of these places rent space to the public when it is not required for their own purposes.

The figures in Tables 29 and 30, compiled by the Department of Agriculture, give some idea of the cold storage warehouse capacity in Canada, but it must be explained that it is not possible to secure completely accurate information on this subject and that the figures are approximations only.

29.—Cold Storage Warehouses by Province, Year Ended Mar. 31, 1957

NOTE.—Figures are approximate only.

| Province | Subsidized Public Warehouses | | | | All Warehouses | |
|---------------------------|------------------------------|-------------------------------|-------------------|---------------------|----------------|-------------------------------|
| | No. | Refrigerated Space cu. ft. | Cost \$ | Total Subsidy \$ | No. | Refrigerated Space cu. ft. |
| Newfoundland..... | 2 | 44,078 | 199,700 | 66,566 | 54 | 1,651,046 |
| Prince Edward Island..... | 11 | 337,517 | 308,408 | 95,966 | 25 | 472,120 |
| Nova Scotia..... | 23 | 4,997,195 | 4,048,342 | 1,206,515 | 79 | 5,667,221 |
| New Brunswick..... | 9 | 1,575,359 | 1,153,959 | 350,328 | 47 | 2,119,332 |
| Quebec..... | 54 | 5,482,839 | 4,956,336 | 1,582,193 | 269 | 19,080,622 |
| Ontario..... | 75 | 11,955,023 | 9,198,226 | 2,856,193 | 891 | 33,160,615 |
| Manitoba..... | 9 | 3,141,532 | 2,180,934 | 654,986 | 165 | 9,575,447 |
| Saskatchewan..... | 23 | 1,172,381 | 1,762,526 | 562,939 | 250 | 4,842,040 |
| Alberta..... | 9 | 1,447,845 | 2,153,657 | 701,608 | 205 | 7,663,678 |
| British Columbia..... | 72 | 23,264,745 | 9,746,663 | 2,935,340 | 179 | 30,160,701 |
| Totals..... | 287 | 53,418,514 | 35,708,752 | 11,012,636 | 2,164 | 114,392,822 |

30.—Storage and Refrigerated Space by Province as at June 30, 1957

NOTE.—Figures are subject to revision.

| Class of Storage | Newfoundland | Prince Edward Island | Nova Scotia | New Brunswick | Quebec |
|--|------------------|----------------------|------------------|------------------|-------------------|
| Public and Semi-Public— | | | | | |
| Warehouses..... No. | 2 | 15 | 28 | 12 | 73 |
| Refrigerated Space— | | | | | |
| Freezer..... cu. ft. | 43,030 | 241,207 | 1,246,609 | 1,021,710 | 5,003,901 |
| Cooler..... " | 1,048 | 30,142 | 3,420,222 | 652,268 | 7,299,490 |
| Locker..... " | .. | 43,520 | 15,668 | 20,706 | 22,418 |
| Private— | | | | | |
| Warehouses..... No. | 29 | 9 | 47 | 34 | 182 |
| Refrigerated Space— | | | | | |
| Freezer..... cu. ft. | 1,152,555 | 46,541 | 711,243 | 305,711 | 1,103,533 |
| Cooler..... " | 106,008 | 109,475 | 229,119 | 98,798 | 5,466,488 |
| Locker..... " | .. | .. | 4,600 | 469 | .. |
| Locker Plants— | | | | | |
| Warehouses..... No. | 2 | .. | 2 | .. | 14 |
| Refrigerated Space— | | | | | |
| Freezer..... cu. ft. | .. | .. | 8,700 | .. | 66,022 |
| Cooler..... " | .. | .. | 3,296 | .. | 35,232 |
| Locker..... " | 55,050 | .. | 12,020 | .. | 83,538 |
| Bait Depots— | | | | | |
| Warehouses..... No. | 21 | 1 | 2 | 1 | .. |
| Refrigerated Space— | | | | | |
| Freezer..... cu. ft. | 289,905 | 965 | 15,744 | 15,053 | .. |
| Cooler..... " | 750 | 270 | .. | 4,617 | .. |
| Locker..... " | 2,700 | .. | .. | .. | .. |
| Totals, Warehouses..... No. | 54 | 25 | 79 | 47 | 269 |
| Totals, Refrigerated Space..... cu. ft. | 1,651,046 | 472,120 | 5,667,221 | 2,119,332 | 19,080,622 |

30.—Storage and Refrigerated Space by Province as at June 30, 1957—concluded

| Class of Storage | Ontario | Manitoba | Saskatchewan | Alberta | British Columbia | Totals |
|--|-------------------|------------------|------------------|------------------|-------------------|--------------------|
| Public and Semi-Public— | | | | | | |
| Warehouses..... No. | 145 | 15 | 25 | 17 | 81 | 413 |
| Refrigerated Space— | | | | | | |
| Freezer..... cu. ft. | 6,673,602 | 3,997,173 | 988,064 | 1,096,530 | 5,100,672 | 25,412,498 |
| Cooler..... " " | 13,188,595 | 1,444,055 | 816,219 | 519,513 | 22,452,123 | 49,823,675 |
| Locker..... " " | 601,632 | 37,150 | 96,162 | 86,759 | 29,621 | 953,636 |
| Private— | | | | | | |
| Warehouses..... No. | 378 | 60 | 75 | 48 | 26 | 888 |
| Refrigerated Space— | | | | | | |
| Freezer..... cu. ft. | 2,464,747 | 648,328 | 607,305 | 1,816,029 | 377,678 | 9,233,670 |
| Cooler..... " " | 6,893,767 | 2,716,221 | 1,233,511 | 3,067,050 | 1,023,455 | 20,943,892 |
| Locker..... " " | 63,774 | .. | 20,734 | 11,985 | .. | 101,562 |
| Locker Plants— | | | | | | |
| Warehouses..... No. | 368 | 90 | 150 | 140 | 72 | 838 |
| Refrigerated Space— | | | | | | |
| Freezer..... cu. ft. | 482,890 | 53,726 | 28,677 | 29,385 | 103,977 | 773,377 |
| Cooler..... " " | 708,850 | 140,907 | 258,163 | 248,252 | 157,548 | 1,552,248 |
| Locker..... " " | 2,082,758 | 537,887 | 793,205 | 788,175 | 915,627 | 5,268,260 |
| Bait Depots— | | | | | | |
| Warehouses..... No. | .. | .. | .. | .. | .. | 25 |
| Refrigerated Space— | | | | | | |
| Freezer..... cu. ft. | .. | .. | .. | .. | .. | 321,667 |
| Cooler..... " " | .. | .. | .. | .. | .. | 5,637 |
| Locker..... " " | .. | .. | .. | .. | .. | 2,700 |
| Totals, Warehouses..... No. | 891 | 165 | 250 | 205 | 179 | 2,164 |
| Totals, Refrigerated Space..... cu. ft. | 33,160,615 | 9,575,447 | 4,842,040 | 7,663,678 | 30,160,701 | 114,392,822 |

31.—Stocks of Food Commodities on Hand in Cold Storage and in Dairy Factories as at Jan. 1, 1955

| Item | As at Jan. 1 | Minimum during Year | Date at which Minimum Occurred | Maximum during Year | Date at which Maximum Occurred | Twelve-Month Average |
|--|--------------|---------------------|--------------------------------|---------------------|--------------------------------|----------------------|
| Butter, Creamery, Dairy and Whey— | | | | | | |
| In storage..... '000 lb. | 90,920 | 58,531 | May 1 | 127,772 | Nov. 1 | 92,323 |
| Total stock..... " " | 91,151 | 58,591 | May 1 | 128,252 | Nov. 1 | 92,623 |
| Cheese, Cheddar— | | | | | | |
| In storage..... " " | 42,195 | 30,427 | May 1 | 45,921 | Oct. 1 | 38,224 |
| Total stock..... " " | 42,424 | 31,209 | May 1 | 46,161 | Oct. 1 | 38,950 |
| Evaporated Whole Milk— | | | | | | |
| Total stock..... " " | 46,480 | 21,326 | Apr. 1 | 70,287 | Oct. 1 | 45,393 |
| Skim Milk Powder— | | | | | | |
| Total stock..... " " | 11,848 | 4,222 | May 1 | 13,422 | Nov. 1 | 9,212 |
| Eggs, Shell— | | | | | | |
| In storage..... '000 cases | 230 | 32 | Dec. 1 | 361 | June 1 | 217 |
| Total stock..... " " | 230 | 33 | Dec. 1 | 363 | June 1 | 219 |
| Eggs, Frozen— | | | | | | |
| In storage..... '000 lb. | 4,670 | 4,670 | Jan. 1 | 9,939 | Sept. 1 | 7,859 |
| Poultry, Dressed and Eviscerated— | | | | | | |
| In storage..... " " | 26,654 | 8,520 | Aug. 1 | 30,121 | Dec. 1 | 16,537 |
| Total stock..... " " | 26,679 | 8,545 | Aug. 1 | 30,696 | Dec. 1 | 16,609 |
| Pork, Fresh— | | | | | | |
| In storage..... " " | 4,483 | 4,209 | Sept. 1 | 5,829 | Nov. 1 | 5,020 |

**31.—Stocks of Food Commodities on Hand in Cold Storage and in Dairy Factories
as at Jan. 1, 1955—concluded**

| Item | As at Jan. 1 | Minimum during Year | Date at which Minimum Occurred | Maximum during Year | Date at which Maximum Occurred | Twelve- Month Average |
|---|-----------------|---------------------------|---|---------------------------|---|-----------------------------|
| Pork, Frozen— In storage.....'000 lb. | 18,366 | 7,803 | Oct. 1 | 30,476 | May 1 | 19,523 |
| Pork, Cured and in Cure— In storage..... " | 11,617 | 11,076 | Oct. 1 | 14,762 | Dec. 1 | 12,573 |
| Lard— In storage..... " | 5,490 | 3,332 | Nov. 1 | 7,712 | June 1 | 5,424 |
| Beef, Fresh— In storage..... " | 10,491 | 10,491 | Jan. 1 | 14,053 | Oct. 1 | 11,789 |
| Beef, Frozen— In storage..... " | 15,479 | 9,403 | July 1 | 16,987 | Dec. 1 | 12,400 |
| Beef, Cured, etc.— In storage..... " | 375 | 296 | Apr. 1 | 592 | Oct. 1 | 403 |
| Veal— In storage..... " | 3,954 | 1,892 | Apr. 1 | 6,704 | Dec. 1 | 4,763 |
| Mutton and Lamb— In storage..... " | 3,112 | 1,006 | Aug. 1 | 3,880 | Dec. 1 | 2,042 |
| Fruit— Apples, Fresh— In storage.....'000 bu. | 4,366 | 248 | June 1 | 8,473 | Nov. 1 | 2,268 |
| Frozen Fruit— In storage.....'000 lb. | 24,940 | 14,074 | June 1 | 30,696 | Sept. 1 | 22,780 |
| In preservatives— In storage..... " | 12,083 | 7,948 | June 1 | 12,392 | Dec. 1 | 10,559 |
| Potatoes— In storage.....'000 bu. | 16,514 | 1,883 | June 1 | 29,585 | Nov. 1 | 9,052 |

Cold Storage Holdings of Fish.—The stocks of frozen fish held in Canada during 1955 followed the usual seasonal trend. Normally, stocks decrease gradually during the early months of the year and reach a low point at the beginning of May; during subsequent months they increase and reach a peak at the beginning of October or November.

Holdings of frozen fish at any particular time tend to reflect the strength of the market as well as the level of production. While the production of frozen groundfish filets (including blocks) was higher in 1955 than in 1954, the demand for these products in the United States market was greater than in the previous year. Even so, stocks remained higher than in 1954, especially during the first half of the year. Stocks of frozen Pacific halibut were high at the beginning of the year as a result of a depressed market for this product in North America, carried over from the late months of 1954 and continuing throughout the 1955 fishing season. The market recovered, however, towards the end of the year. Production was lower than in 1954 and, on the average, stocks were also somewhat lower. The production of frozen Pacific salmon was also below that of 1954 and stocks were considerably below the 1954 level.

Average monthly holdings of the main fish products in 1954 and 1955 are shown in Table 32.

32.—Storage Stocks of Fish by Month and Type 1954 and 1955

NOTE.—Stock totals are as at the begining of each month; stocks of individual products are monthly averages.

| Month | 1954 | 1955 | Group and Product | 1954 | 1955 |
|-----------------|--------------|-------------|--|--------------|-------------|
| | '000,000 lb. | | | '000,000 lb. | |
| Jan. 1. | 51.9 | 49.5 | Frozen, Fresh Seafish¹ | 40.3 | 34.1 |
| Feb. 1. | 43.6 | 42.5 | Salmon, Pacific, dressed and filleted. | 7.1 | 5.1 |
| Mar. 1. | 33.4 | 33.9 | Halibut, Pacific, dressed. | 7.9 | 7.5 |
| Apr. 1. | 24.9 | 23.5 | Herring, Atlantic, round. | 3.4 | 0.8 |
| May 1. | 24.6 | 24.5 | Cod, Atlantic, filleted. | 5.1 | 6.6 |
| June 1. | 32.0 | 28.1 | Frozen, Fresh Inland Fish¹ | 3.3 | 4.9 |
| July 1. | 39.5 | 37.9 | Whitefish, dressed and filleted. | 0.7 | 1.2 |
| Aug. 1. | 46.9 | 47.8 | Tullibee, round or dressed. | 0.3 | 0.3 |
| Sept. 1. | 58.0 | 54.9 | Pickarel (yellow), dressed and filleted. | 0.7 | 0.9 |
| Oct. 1. | 65.8 | 54.7 | Frozen, Smoked Fish¹ | 2.3 | 2.4 |
| Nov. 1. | 68.5 | 53.9 | Cod, Atlantic, filleted. | 1.3 | 1.3 |
| Dec. 1. | 61.9 | 46.2 | Sea herring, dressed. | 0.5 | 0.5 |
| | | | Haddock, dressed. | 0.2 | 0.4 |
| Averages | 45.9 | 41.4 | Totals | 45.9 | 41.4 |

¹ Includes other items not listed.

Cold Storage of Dairy Products.—Cold storage facilities are a necessary adjunct in the manufacture of dairy products, most of which are perishable in varying degrees. All creameries have facilities for the storing of butter, the size and type of storage depending on the size of the creamery. If the butter produced at small country plants is not printed for immediate sale, the butter solids are disposed of or are transported to larger creameries where better refrigeration is available or to private or public cold storages in the larger urban centres. Temperature control is important in the curing process for cheese as well as in the prevention of deterioration. Most cheese factories are equipped with mechanical refrigeration and are required to have storage capacity for 17 days' produce during the period of maximum manufacture. The cheese is then transferred to central warehouses. As soon as milk is bottled it is placed in storage and held until delivery. Dry whole milk and other dried milk products containing fat are usually stored in cool air chambers to prevent rancidity.

Cold Storage of Apples and Potatoes.—Cold storage space for apples in Canada has increased rapidly in recent years as a result of the promotion of orderly marketing, the extension of the marketing season generally, and increased production in some areas. The trend has followed the curtailment in shipments to traditional markets in the United Kingdom and other European countries after World War II. There has been an increase recently in the construction of both private and co-operatively owned storages, particularly in the Province of Quebec.

Potatoes are not ordinarily held in cold storage but recently there has been an increase in the construction of potato storage houses and warehouses in the commercial producing areas.

Subsection 3.—Storage of Petroleum and Petroleum Products

Bulk storage plants for petroleum and petroleum products are established at convenient distributing centres, usually on a waterfront so that full advantage may be taken of the lower cost of water-borne traffic. From these centres the goods are transferred by boat, rail or truck to smaller distributing depots or directly to retail outlets. The principal refining and distributing centres are located at or near Halifax, Quebec, Montreal, Ottawa, Toronto, Sarnia, Fort William, Regina, Calgary, Turner Valley, Edmonton and Vancouver.

33.—Petroleum and Petroleum Products in Storage as at Jan. 1, 1956 and 1957

(Barrels of 35 Imperial gallons)

| Product | 1956 | 1957 |
|---|------------|------------|
| | bbl. | bbl. |
| Crude oil..... | 20,611,836 | 23,265,678 |
| Liquefied petroleum gas..... | 77,012 | 99,332 |
| Petro-chemical feed stocks..... | 20,861 | 24,280 |
| Naphtha specialties..... | 299,887 | 271,924 |
| Aviation gasoline..... | 1,498,748 | 1,101,526 |
| Motor gasoline..... | 14,795,328 | 18,396,415 |
| Aviation turbo-fuel..... | 615,230 | 585,056 |
| Kerosene, stove oil and tractor fuel..... | 3,674,612 | 5,180,014 |
| Diesel fuel..... | 3,524,148 | 4,640,484 |
| Light fuel oil (Nos. 2 and 3)..... | 13,108,360 | 15,280,104 |
| Heavy fuel oil (Nos. 4, 5 and 6)..... | 4,750,853 | 5,755,440 |
| Asphalt..... | 905,834 | 917,405 |
| Coke..... | 23,950 | 32,632 |
| Lubricating oil and grease..... | 1,232,165 | 1,429,452 |
| Wax and candles..... | 16,090 | 11,271 |
| Other products..... | 266 | 52,761 |
| Still gas..... | 726 | 298 |
| Unfinished products..... | 5,578,485 | 5,179,505 |

Subsection 4.—General Warehousing

Public Warehouses.—The summary statistics of the warehousing industry in Canada presented in Table 34 cover the operations of the majority of firms offering warehousing and storage facilities to the public. The 1956 statistics include returns from 227 operators as compared with 195 reporting in 1955. Associations and organizations such as co-operatives operating warehouses or storages for their own members are not included nor are packing houses and other firms operating storage facilities in connection with their respective businesses. Many public warehousing companies also operate a local moving and cartage service and others a motor carrier business, including long-distance moving. For some firms, revenues from motor carrier activities represent a large percentage of total receipts. Small food lockers are not included except where they may be part of a general warehousing business.

34.—Summary Statistics of the Warehousing Industry 1954-56

| Item | 1954 | 1955 | 1956 |
|--|--------------------|------------|------------|
| Companies reporting..... | No. 185 | 195 | 227 |
| Investment in land, warehouses, etc..... | \$ 47,649,107 | 54,275,888 | 62,720,201 |
| Warehousing Facilities— | | | |
| Dry storage (net)..... | cu. ft. 58,095,164 | 67,564,183 | 79,948,180 |
| Cold storage..... | 20,864,851 | 22,801,933 | 28,324,864 |
| Revenue— | | | |
| Storage..... | \$ 12,987,959 | 13,423,170 | 15,758,690 |
| Cartage and moving..... | 13,506,767 | 15,470,320 | 18,973,054 |
| Miscellaneous..... | 8,769,871 | 11,158,406 | 14,137,787 |
| Total Revenue..... | \$ 35,264,597 | 40,051,896 | 48,869,531 |
| Operating expenses..... | \$ 31,320,091 | 36,013,753 | 43,799,167 |
| Net Operating Revenue..... | \$ 3,944,506 | 4,038,143 | 5,070,364 |
| Salaried employees..... | No. 1,452 | 1,672 | 1,885 |

91593—61½

34.—Summary Statistics of the Warehousing Industry 1954-56—concluded

| Item | | 1954 | 1955 | 1956 |
|------------------------------|-----|------------|------------|------------|
| Wage Earners— | | | | |
| Regular..... | No. | 5,480 | 5,830 | 6,294 |
| Casual..... | " | 690 | 880 | 1,112 |
| Salaries and wages paid..... | \$ | 16,380,795 | 18,804,462 | 22,466,569 |
| Motor Vehicles— | | | | |
| Trucks..... | No. | 1,525 | 1,595 | 1,850 |
| Tractors..... | " | 1 | 432 | 633 |
| Semi-trailers..... | " | 477 | 474 | 654 |
| Trailers..... | " | 94 | 92 | 77 |

¹ Included with semi-trailer units.

Customs Warehouses.—Warehouses for the storage of imported goods are known as customs warehouses. These are divided into eight classes: (1) those occupied by the Federal Government, some of which are used for examination and appraisal of imported goods and others, known as Queen's warehouses, are used for the storage of unclaimed, abandoned, seized or forfeited goods; (2) warehouses, consisting of an entire building or part thereof properly partitioned from the remainder of the building, which are used exclusively for the storage of imported goods consigned to the operator of the warehouse; (3) buildings or parts of buildings properly partitioned off, used for storage of imported goods consigned to the operator or others; (4) surference warehouses operated by the owners of vessels for the storage of in-bond goods transported by water or air, those operated by railway companies and express companies, or any person or group of persons other than those specified previously; (5) yards, sheds or other suitable enclosures for the storage of imported coal and coke; (6) farms, yards, sheds, etc., which an importer of horses or sheep intends to use for the feeding and pasturing of imported animals; (7) warehouses for the storage of animals (not including horses for racing), and articles for exhibition or competition for prizes; (8) yards, sheds or other suitable enclosures which importers intend to use for the storage of goods too heavy or too bulky to be admitted to an established customs warehouse.

Subsection 5.—Bonded Warehousing and Storage of Wines

Bonded Warehousing.—The Excise Duty Branch of the Department of National Revenue considers any premises licensed under the Excise Act to be a warehouse, whether for storage of raw materials to produce finished tobacco or cigar products or for spirits or malt used for brewing. Practically the total production of spirits is placed in bonded warehouses and only a small part of the output of beer is retained in storage. Wine, unlike spirits and beer, is not secured under bond. All imports of alcoholic beverages must go through bonded warehouses before being released to Provincial Liquor Commissions or Boards, or other agencies authorized by the Commissions or Boards to take alcoholic beverages out of bond. Similarly, tobacco, cigars and cigarettes that are not stamped and duty paid are secured in bond. In addition to these warehouses, there are those in which no manufacturing or production is carried on but which are used solely for the storage of goods upon which duty has not been paid. Goods are stored in these warehouses usually for the purpose of rapid distribution and for delivery as ships' stores.

Table 35 shows the quantities of distilled liquor, tobacco, cigars, and cigarettes in bond in recent years. In addition, the year-end inventories of beer in breweries was 27,613,682 gal. in 1956; information for 1957 is not yet available.

35.—Distilled Liquor, Tobacco, Cigars and Cigarettes in Bond, Quarterly 1953-57

| Item and Quarter | 1953 | 1954 | 1955 | 1956 | 1957 |
|--|---------|---------|---------|---------|---------|
| Distilled Liquor— | | | | | |
| March.....'000 pf. gal. | 92,089 | 95,400 | 102,925 | 110,084 | 117,567 |
| June....." | 93,339 | 97,845 | 105,047 | 112,589 | 120,613 |
| September....." | 92,501 | 98,081 | 105,773 | 112,875 | 120,058 |
| December....." | 93,174 | 99,477 | 107,084 | 110,651 | 120,371 |
| Tobacco, Unmanufactured— | | | | | |
| March.....'000 lb. | 226,832 | 217,296 | 229,016 | 213,359 | 199,716 |
| June....." | 198,058 | 190,540 | 202,793 | 187,570 | 179,079 |
| September....." | 168,792 | 163,155 | 171,272 | 157,964 | 148,881 |
| December....." | 166,194 | 171,126 | 175,983 | 155,715 | 119,584 |
| Cigars— | | | | | |
| March.....'000 | 2,726 | 3,505 | 2,774 | 2,521 | 2,986 |
| June....." | 2,221 | 2,952 | 2,121 | 1,336 | 1,170 |
| September....." | 2,060 | 1,867 | 1,359 | 1,145 | 1,126 |
| December....." | 1,407 | 1,090 | 173 | 727 | 1,194 |
| Cigarettes at 3 lb. or under—¹ | | | | | |
| March.....'000 | 7,499 | 17,574 | 5,634 | 3,967 | 8,656 |
| June....." | 4,687 | 14,612 | 7,512 | 4,966 | 3,247 |
| September....." | 7,108 | 2,481 | 1,842 | 3,812 | 11,440 |
| December....." | 9,763 | 3,669 | 3,740 | 2,690 | 8,419 |

¹ Excludes Newfoundland.

Beverage spirits, as shown in Table 36, refer to spirits released for consumption but not to industrial alcohol; malt beer does not include beer made from duty-free malt; malt used is the total malt used to produce the malt beer; tobacco includes all types of manufactured tobacco products and snuff.

36.—Beverage Spirits, Malt Beer, Malt, Tobacco and Tobacco Products taken out of Bond and Destined for Consumption 1948-57

| Year | Beverage Spirits ² | Malt Beer ¹ | Malt Used | Cigars | Cigarettes | Tobacco |
|-----------|-------------------------------|------------------------|-------------|---------|------------|----------|
| | pf. gal. | gal. | lb. | '000 | '000 | '000 lb. |
| 1948..... | 8,259,233 | 172,630,562 | 349,081,232 | 210,016 | 15,852,875 | 29,174 |
| 1949..... | 8,841,888 | 172,963,887 | 348,786,984 | 208,208 | 16,839,654 | 28,710 |
| 1950..... | 9,131,903 | 171,974,662 | 340,287,033 | 198,981 | 17,167,729 | 29,187 |
| 1951..... | 10,801,225 | 179,648,482 | 353,130,285 | 169,136 | 15,667,266 | 30,177 |
| 1952..... | 11,171,830 | 195,780,017 | 378,764,899 | 200,263 | 17,848,325 | 33,637 |
| 1953..... | 12,445,166 | 202,897,996 | 381,508,232 | 235,587 | 21,001,492 | 28,732 |
| 1954..... | 11,946,178 | " | 370,328,106 | 244,248 | 22,113,102 | 26,846 |
| 1955..... | 11,847,649 | " | 372,693,929 | 252,633 | 24,576,087 | 26,000 |
| 1956..... | 13,733,393 | " | 386,064,673 | 255,570 | 26,997,705 | 23,272 |
| 1957..... | 13,830,292 | " | 404,697,177 | 292,650 | 30,149,746 | 22,338 |

¹ Duty has been paid herein on the malt.² Duty solely on gallonage basis since 1954.

Storage of Wines.—The wine industry is confined to a few localities such as the Niagara Peninsula in Ontario and the Okanagan Valley in British Columbia. Firms manufacturing native wines are not bonded, as far as the Federal Government is concerned, nor is wine in storage for maturing placed in bond. The only goods warehoused in bond in connection with wineries are sugar supplies and supplies of grape spirit distilled by the distilleries and held by the wineries for fortifying wines.

37.—Native Wine Produced and Placed in Storage for Maturing 1951-56

| Year | Ontario | | Other Provinces | | Total | |
|-----------|-----------|-----------|-----------------|---------|-----------|-----------|
| | gal. | \$ | gal. | \$ | gal. | \$ |
| 1951..... | 4,182,767 | 2,729,147 | 494,288 | 407,849 | 4,677,055 | 3,136,996 |
| 1952..... | 4,383,358 | 2,764,750 | 552,694 | 440,864 | 4,936,052 | 3,205,614 |
| 1953..... | 3,562,498 | 2,237,316 | 572,692 | 430,574 | 4,135,190 | 2,667,890 |
| 1954..... | 4,414,981 | 2,688,060 | 640,183 | 510,464 | 5,055,164 | 3,198,524 |
| 1955..... | 5,059,418 | 3,059,868 | 624,670 | 480,491 | 5,684,088 | 3,540,359 |
| 1956..... | 4,945,429 | 2,880,176 | 528,447 | 415,763 | 5,473,876 | 3,295,939 |

Section 4.—Co-operative Organizations*

A little over 30 p.c. of all farm products marketed in Canada during the crop year ended July 31, 1956, was marketed through co-operatives. The proportion varied by type of product marketed as follows: grains, hay and seeds 62 p.c.; dairy products 24 p.c.; livestock 16 p.c.; poultry and eggs 9 p.c.; fruits and vegetables 25 p.c.; honey 47 p.c.; and maple products 62 p.c. These proportions apply to a business volume of marketing co-operatives of \$751,000,000, an amount slightly higher than that of \$704,000,000 for 1955. Co-operatives for the purchase of supplies reported sales of \$259,000,000 in 1956.

Marketing and purchasing co-operatives, owned and operated by farmers, make up most of the co-operative movement in Canada. The total business volume of these co-operatives in 1956 exceeded \$1,000,000,000 compared with \$941,000,000 in 1955. Membership in these organizations rose to 1,255,788 although this total includes duplication because many persons are members of more than one organization. The total number of organizations was 2,041.

Nearly 60 p.c. of the membership in marketing and purchasing co-operatives occurs in the Prairie Provinces, with Saskatchewan holding first place.

* Prepared under the direction of the Deputy Minister of Agriculture, by the Economics Division, Marketing Service.

38.—Summary Statistics of Co-operative Marketing and Purchasing Associations, Crop Years Ended July 31, 1947-56

| Year | Associations | Places of Business | Patrons | Sales of Farm Products | Sales of Supplies | Total Business ¹ |
|-----------|--------------|--------------------|-----------|------------------------|-------------------|-----------------------------|
| | No. | No. | No. | \$ | \$ | \$ |
| 1947..... | 2,095 | 5,084 | 1,036,498 | 578,638,214 | 127,001,488 | 712,583,246 |
| 1948..... | 2,249 | 5,423 | 1,195,372 | 616,347,477 | 157,874,045 | 780,084,955 |
| 1949..... | 2,378 | 5,667 | 1,209,520 | 783,293,225 | 191,804,630 | 982,232,002 |
| 1950..... | 2,495 | 5,761 | 1,223,582 | 803,638,962 | 206,082,408 | 1,015,264,763 |

¹ Includes other revenue.

**38.—Summary Statistics of Co-operative Marketing and Purchasing Associations,
Crop Years Ended July 31, 1947-56—concluded**

| Year | Associations | Places of Business | Patrons | Sales of Farm Products | Sales of Supplies | Total Business ¹ |
|-----------|--------------|--------------------|-----------|------------------------|-------------------|-----------------------------|
| | No. | No. | No. | \$ | \$ | \$ |
| 1951..... | 2,348 | 5,830 | 1,195,034 | 769,264,824 | 209,985,815 | 988,459,832 |
| 1952..... | 2,194 | 5,470 | 1,108,803 | 840,113,835 | 234,848,220 | 1,085,854,744 |
| 1953..... | 2,221 | 4,987 | 1,081,493 | 874,698,323 | 245,629,603 | 1,147,590,401 |
| 1954..... | 2,086 | 4,510 | 1,005,266 | 733,012,042 | 234,583,125 | 986,297,820 |
| 1955..... | 1,949 | 5,016 | 1,087,522 | 704,047,067 | 228,446,485 | 941,377,889 |
| 1956..... | 2,041 | 5,353 | 1,115,412 | 750,622,909 | 258,751,870 | 1,019,750,088 |

| | Value of Plant | Total Assets | Liabilities to the Public | Shareholders or Members | Members' Equity |
|-----------|----------------|--------------|---------------------------|-------------------------|-----------------|
| | \$ | \$ | \$ | No. | \$ |
| 1947..... | 53,027,212 | 168,195,387 | 71,403,750 | 982,990 | 96,791,637 |
| 1948..... | 75,009,655 | 201,603,705 | 89,381,360 | 1,127,229 | 112,222,345 |
| 1949..... | 89,832,908 | 236,962,924 | 106,599,688 | 1,144,698 | 130,363,236 |
| 1950..... | 98,514,782 | 254,478,777 | 111,092,652 | 1,173,126 | 143,386,125 |
| 1951..... | 99,790,191 | 306,834,165 | 159,357,602 | 1,184,235 | 147,476,563 |
| 1952..... | 129,983,112 | 410,210,309 | 214,737,270 | 1,163,803 | 195,473,039 |
| 1953..... | 117,228,290 | 419,930,634 | 234,339,211 | 1,195,985 | 185,591,423 |
| 1954..... | 120,928,699 | 418,887,674 | 235,993,511 | 1,196,426 | 182,894,163 |
| 1955..... | 126,349,756 | 419,387,477 | 229,004,480 | 1,199,808 | 190,382,997 |
| 1956..... | 137,673,470 | 463,695,625 | 259,027,143 | 1,255,788 | 204,668,482 |

¹ Includes other revenue.

**ASSETS, LIABILITIES AND MEMBERS' EQUITIES,
CO-OPERATIVE MARKETING AND PURCHASING ASSOCIATIONS,
YEARS ENDED JULY 31, 1949-56**



39.—Summary Statistics of Co-operative Marketing and Purchasing Associations by Province, Crop Years Ended July 31, 1954-56

| Province | Associations | Shareholders or Members | Sales of Products | Sales of Merchandise | Total Business ¹ |
|---------------------------|-------------------|-------------------------|--------------------|----------------------|-----------------------------|
| | No. | No. | \$ | \$ | \$ |
| Newfoundland..... | 1954 44 | 7,074 | 180,549 | 3,844,433 | 4,044,608 |
| | 1955 45 | 5,014 | 240,589 | 3,801,041 | 4,057,785 |
| | 1956 51 | 7,483 | 2,562 | 4,122,375 | 4,142,955 |
| Prince Edward Island..... | 1954 20 | 5,631 | 941,711 | 2,975,402 | 4,008,483 |
| | 1955 7 | 2,070 | 639,366 | 1,126,954 | 1,787,767 |
| | 1956 12 | 3,831 | 1,232,703 | 2,261,996 | 3,507,573 |
| Nova Scotia..... | 1954 91 | 22,869 | 4,632,093 | 12,477,257 | 17,241,968 |
| | 1955 91 | 25,158 | 5,284,909 | 13,959,639 | 19,549,128 |
| | 1956 98 | 26,551 | 5,595,364 | 13,679,087 | 19,680,439 |
| New Brunswick..... | 1954 48 | 10,548 | 1,647,002 | 4,534,654 | 6,219,955 |
| | 1955 57 | 13,178 | 7,162,436 | 6,158,981 | 13,461,558 |
| | 1956 50 | 13,036 | 6,839,919 | 6,510,151 | 13,441,421 |
| Quebec..... | 1954 648 | 87,029 | 68,477,665 | 58,502,780 | 128,445,275 |
| | 1955 612 | 85,320 | 75,124,857 | 56,072,616 | 132,439,402 |
| | 1956 632 | 94,187 | 80,102,476 | 65,823,982 | 148,220,918 |
| Ontario..... | 1954 341 | 105,718 | 100,352,445 | 45,007,059 | 146,013,121 |
| | 1955 294 | 87,788 | 109,722,603 | 38,678,610 | 150,864,326 |
| | 1956 306 | 106,074 | 97,750,374 | 47,920,527 | 147,494,942 |
| Manitoba..... | 1954 115 | 132,729 | 60,789,594 | 14,323,608 | 75,853,590 |
| | 1955 122 | 117,408 | 59,539,203 | 14,424,425 | 74,536,890 |
| | 1956 119 | 137,991 | 67,134,182 | 15,795,344 | 83,907,226 |
| Saskatchewan..... | 1954 495 | 461,455 | 216,701,860 | 52,038,783 | 272,629,003 |
| | 1955 466 | 468,850 | 193,797,452 | 52,483,674 | 248,307,589 |
| | 1956 478 | 429,080 | 236,240,744 | 56,277,653 | 295,002,845 |
| Alberta..... | 1954 180 | 203,970 | 144,564,061 | 14,739,124 | 159,811,268 |
| | 1955 148 | 214,274 | 125,741,602 | 18,771,431 | 145,050,856 |
| | 1956 176 | 221,277 | 134,987,496 | 20,027,535 | 155,652,880 |
| British Columbia..... | 1954 89 | 44,820 | 52,067,267 | 15,160,719 | 68,359,211 |
| | 1955 102 | 50,975 | 56,175,874 | 15,499,983 | 73,146,511 |
| | 1956 113 | 51,281 | 55,269,730 | 18,629,330 | 75,428,928 |
| Interprovincial..... | 1954 5 | 114,583 | 82,657,795 | 10,979,306 | 103,671,338 |
| | 1955 5 | 129,773 | 70,618,176 | 7,469,131 | 78,176,077 |
| | 1956 6 | 164,997 | 65,467,359 | 7,703,890 | 73,269,961 |
| Totals..... | 1954 2,086 | 1,196,426 | 733,012,042 | 234,583,125 | 986,297,820 |
| | 1955 1,949 | 1,199,808 | 704,047,067 | 228,446,485 | 941,377,889 |
| | 1956 2,041 | 1,255,788 | 750,622,909 | 258,751,870 | 1,019,750,988 |

¹ Includes other revenue.

40.—Products Handled by Marketing and Purchasing Co-operatives, Crop Years Ended July 31, 1955 and 1956

| Product | 1955 | | 1956 | |
|---------------------------|---------------------------|--------------------|---------------------------|--------------------|
| | Associations ¹ | Value of Sales | Associations ¹ | Value of Sales |
| | No. | \$ | No. | \$ |
| Marketing..... | 1,030 | 704,047,067 | 1,010 | 750,622,909 |
| Dairy products..... | 509 | 143,612,420 | 505 | 153,966,741 |
| Fruit and vegetables..... | 129 | 32,004,690 | 133 | 31,632,954 |
| Grain and seed..... | 90 | 316,537,572 | 119 | 362,094,917 |
| Livestock..... | 278 | 104,598,523 | 308 | 113,272,985 |
| Eggs and poultry..... | 206 | 24,860,590 | 199 | 28,857,040 |
| Lumber and wood..... | 25 | 1,197,154 | 43 | 1,438,579 |
| Honey..... | 8 | 1,697,171 | 8 | 2,028,142 |
| Wool..... | 14 | 1,853,566 | 16 | 1,636,756 |
| Fur..... | 11 | 592,420 | 12 | 575,332 |
| Tobacco..... | 6 | 72,968,803 | 4 | 50,111,481 |
| Maple products..... | 2 | 3,355,418 | 3 | 4,136,629 |
| Miscellaneous..... | 43 | 868,740 | 58 | 871,353 |

For footnote, see end of table.

40.—Products Handled by Marketing and Purchasing Co-operatives, Crop Years Ended July 31, 1955 and 1956—concluded

| Product | 1955 | | 1956 | |
|--|--------------------------------|--------------------|--------------------------------|----------------------|
| | Associa- tions ¹ | Value of Sales | Associa- tions ¹ | Value of Sales |
| | No. | \$ | No. | \$ |
| Merchandising | 1,664 | 228,446,485 | 1,602 | 258,751,870 |
| Food products..... | 923 | 61,462,672 | 798 | 68,172,755 |
| Clothing and home furnishings..... | 538 | 9,320,715 | 592 | 9,888,878 |
| Petroleum products and auto accessories..... | 606 | 38,450,953 | 608 | 43,777,255 |
| Feed, fertilizer and spray material..... | 839 | 75,070,507 | 864 | 88,986,254 |
| Machinery and equipment..... | 330 | 8,256,808 | 421 | 10,615,777 |
| Coal, wood and building material..... | 650 | 17,949,866 | 605 | 17,122,552 |
| Miscellaneous..... | 979 | 17,934,964 | 1,003 | 20,188,399 |
| Totals | 2,694 | 932,493,552 | 2,612 | 1,009,374,779 |

¹ Duplication exists in this column as some associations market produce as well as handle supplies. Some associations market more than one product and some handle many of the supplies listed.

Fishermen's co-operatives, while small in number, are an important factor in the lives of Canadian fishermen. They had a membership of over 9,500 in 1956.

Service co-operatives reported revenues of \$13,000,000. This revenue was obtained by 552 organizations providing housing, medical insurance, transportation and other services. Fire and life insurance associations are not included in these figures.

The financial structure of marketing and purchasing co-operatives includes assets of \$464,000,000 and members' equity of \$205,000,000.

The ten co-operative wholesales in operation reported a business volume of nearly \$188,000,000 and assets of \$55,000,000.

Section 5.—Interprovincial Freight Movements*

Statistics on interprovincial trade are difficult to collect because there are no controls or barriers to it. The only comprehensive statistics available are the loadings and unloadings of freight carried by the railways. Railway freight traffic is segregated into 99 classes and the differences between loadings and unloadings are the imports and exports *by rail* for the respective provinces. However, freight can be imported by rail and exported by water, as with western grain which may be moved to the Ontario ports of Fort William and Port Arthur. Consequently, the statistics of Table 41 must not be taken as a measure of total interprovincial trade; these figures indicate interprovincial movement of railway freight which is one aspect only of that trade.

* Revised in the Transportation Section, Public Finance and Transportation Division, Dominion Bureau of Statistics.

41.—Railway Revenue Freight Movement by Province 1954 and 1955

| Province | Loaded | | Received from Foreign Connections | | Totals Originated ¹ | |
|--------------------------|--------------------|--------------------|---|-------------------|--------------------------------|--------------------|
| | 1954 | 1955 | 1954 | 1955 | 1954 | 1955 |
| | tons | tons | tons | tons | tons | tons |
| Newfoundland..... | 1,148,093 | 1,334,374 | 95 | 30 | 1,148,188 | 1,334,404 |
| Prince Edward Island.... | 296,338 | 305,773 | 26 | — | 296,364 | 305,773 |
| Nova Scotia..... | 9,401,113 | 10,761,398 | 141,076 | 150,779 | 9,542,189 | 10,912,177 |
| New Brunswick..... | 4,105,558 | 4,445,986 | 619,937 | 620,182 | 4,725,495 | 5,066,168 |
| Quebec..... | 20,705,415 | 30,469,062 | 7,770,050 | 8,056,108 | 28,475,465 | 38,525,170 |
| Ontario..... | 34,637,419 | 40,619,626 | 22,495,868 | 25,125,212 | 57,133,287 | 65,744,838 |
| Manitoba..... | 7,043,262 | 7,227,710 | 586,493 | 532,790 | 7,629,755 | 7,760,500 |
| Saskatchewan..... | 12,759,920 | 12,142,281 | 283,275 | 247,958 | 13,043,195 | 12,390,239 |
| Alberta..... | 11,014,527 | 11,347,667 | 49,645 | 74,766 | 11,064,172 | 11,422,433 |
| British Columbia..... | 11,186,822 | 12,802,992 | 1,173,123 | 1,391,848 | 12,359,945 | 14,194,840 |
| Totals | 112,298,467 | 131,456,869 | 33,119,588 | 36,199,673 | 145,418,055 | 167,656,542 |

For footnote, see end of table, page 970.

41.—Railway Revenue Freight Movement by Province 1954 and 1956—concluded

| Province | Unloaded | | Delivered to Foreign Connections | | Totals Terminated ¹ | |
|--------------------------|--------------------|--------------------|----------------------------------|-------------------|--------------------------------|--------------------|
| | 1954 | 1955 | 1954 | 1955 | 1954 | 1955 |
| | tons | tons | tons | tons | tons | tons |
| Newfoundland..... | 1,119,769 | 1,369,667 | 176,120 | 149,221 | 1,295,889 | 1,518,888 |
| Prince Edward Island.... | 406,172 | 487,944 | 207 | — | 406,379 | 487,944 |
| Nova Scotia..... | 8,046,429 | 9,314,525 | 610,699 | 934,227 | 8,657,128 | 10,248,752 |
| New Brunswick..... | 3,631,369 | 3,935,975 | 1,552,937 | 2,183,152 | 5,184,306 | 6,119,127 |
| Quebec..... | 22,686,757 | 32,109,414 | 7,333,175 | 7,639,691 | 30,019,932 | 39,749,105 |
| Ontario..... | 43,035,094 | 48,167,803 | 23,132,823 | 25,690,836 | 66,167,917 | 73,858,639 |
| Manitoba..... | 7,272,141 | 7,818,045 | 898,966 | 1,019,095 | 8,171,107 | 8,837,140 |
| Saskatchewan..... | 4,858,764 | 4,563,168 | 1,056,931 | 1,309,675 | 5,915,695 | 5,872,843 |
| Alberta..... | 5,190,486 | 6,082,121 | 16,670 | 25,148 | 5,207,156 | 6,107,269 |
| British Columbia..... | 8,267,899 | 8,950,801 | 5,320,577 | 4,958,373 | 13,588,476 | 13,909,174 |
| Totals..... | 104,514,880 | 122,799,463 | 40,099,105 | 43,909,418 | 144,613,985 | 166,708,881 |

¹ Figures for freight originating and freight terminating do not agree because freight that originates within a certain year does not all terminate within the same year.

PART II.—GOVERNMENT AIDS TO AND CONTROL OF DOMESTIC TRADE

During the postwar period, the elaborate system of government control of trade that the war effort made necessary was gradually relaxed (*see* the 1948-49 Year Book, pp. 837-841) until, by the beginning of 1949, only those measures to protect domestic requirements and prevent the forcing upward of prices in the Canadian market remained; since then even these have practically disappeared.

Section 1.—Controls Affecting the Handling and Marketing of Grain

The agencies exercising control of the grain trade in Canada include the Board of Grain Commissioners which since 1912 has administered the provisions of the Canada Grain Act, and the Canadian Wheat Board which operates under the Canadian Wheat Board Act 1935. The former is a quasi-judicial and administrative body which, through the powers vested in it in matters of interprovincial transportation and patents and copyrights, gives the Federal Government complete power to control the handling of grain; it has no power or duties in respect of grain prices. The Canadian Wheat Board, which began to function in the autumn of 1935, was a natural outgrowth of government stabilization measures that were taken during the depression years of the 1930's in regard to the marketing of grain crops. During this period the Government acquired a considerable quantity of wheat and, in the 1935 session of Parliament, legislation was passed to serve the dual purpose of disposing of the holdings so acquired and at the same time arranging for the marketing of new crops.

An account of the organization and functions of the Board of Grain Commissioners appears in the 1941 Year Book, pp. 481-482. An article on the operations of the Canadian Wheat Board is commenced in the 1939 Year Book, pp. 569-580, and concludes in the 1947 edition.

Section 2.—Combinations in Restraint of Trade*

The purpose of Canadian anti-combines legislation is to assist in maintaining free and open competition as a prime stimulus to the achievement of maximum production, distribution and employment in a system of free enterprise. To this end, the legislation

* Revised by T. D. MacDonald, Q.C., Director of Investigation and Research, Combines Investigation Act, Department of Justice, Ottawa.

seeks to eliminate certain practices in restraint of trade, which serve to prevent the nation's economic resources from being most effectively used for the advantage of all citizens.

The first federal legislation in this field, enacted in 1889, is still effective in amended form as Sect. 411 of the Criminal Code and is the mainstay of Canadian anti-combines legislation. Generally speaking, this Section forbids suppliers (manufacturers, wholesalers, retailers) to arrange among themselves to eliminate competition over a substantial part of any market by limiting production, restricting distribution or fixing prices.

Sect. 411 of the Criminal Code and the Combines Investigation Act (R.S.C. 1952, c. 314) are complementary pieces of legislation. The latter was enacted in 1923 and amended extensively in 1935, 1937, 1946, 1949, 1951 and 1952. It repeats in Sects. 2 and 32 some of the substance of Sect. 411 but, while the latter relates chiefly to arrangements among separate firms, the former embraces any "merger, trust or monopoly" relating to a commodity, which has operated or is likely to operate to the detriment or against the interests of the public.

The Combines Investigation Act, in Sect. 34, also forbids a supplier of goods from prescribing the prices at which they are to be resold by wholesalers and retailers, i.e., the practice of "resale price maintenance". The supplier may, however, *suggest* resale prices as long as he does nothing to induce or require the trade to adhere to them.

Sect. 412 of the Criminal Code deals with what are commonly called "price discrimination" and "predatory price cutting". It provides that a supplier may not make a practice of discriminating among those of his trade customers who come into competition with each other, by giving one a preferred price which is not available to another if the second is willing to buy in like quantities and qualities as the first; and it also forbids a supplier from selling at prices lower in one locality than in another, or unreasonably low anywhere, if the purpose or effect of his actions is to lessen competition substantially or to eliminate a competitor.

These provisions, Sects. 411 and 412 of the Criminal Code and Sects. 2, 32 and 34 of the Combines Investigation Act, contain the substantive law relating to restrictive trade practices. The other provisions of the Combines Investigation Act relate to investigation and enforcement.

The Act provides for a Director who is responsible for investigating combines and other restrictive practices, and a Commission (the Restrictive Trade Practices Commission) which is responsible for appraising the evidence submitted to it by the Director and the parties under investigation, and for making a report to the Minister. When there are reasonable grounds for believing that a forbidden practice is engaged in, the Director may obtain from the Commission authorization to examine witnesses, search premises, or require written returns. After examining all the information available, if the Director believes that it proves the existence of a forbidden practice, he submits a statement of the evidence to the Commission and to the parties believed to be responsible for the practice. The Commission then sets a time and place at which it hears argument on behalf of the Director in support of his statement; and hears argument and receives evidence on behalf of any persons against whom allegations have been made in the statement. Following this hearing the Commission prepares and submits a report to the Minister, ordinarily required to be published within thirty days.

The Act also provides for general inquiries into restraints of trade which, while not forbidden or punishable, may affect the public interest. It further provides that the courts, in addition to imposing punishment for a contravention of the legislation, may make an order restraining persons from embarking on, continuing or repeating a contravention. The constitutionality of the Section providing for restraining orders, which was enacted in 1952, has been upheld by the Supreme Court of Canada.

In the years 1951-56, the following reports of inquiries under the legislation have been published:—

- (1) Manufacture, Distribution and Sale of Mechanical Rubber Goods; Tires and Tubes; Accessories and Repair Materials; Rubber Footwear; Heels and Soles; Vulcanized Rubber Clothing.
- (2) Distribution and Sale of Bread and Other Bakery Products in the Winnipeg Area.
- (3) Manufacture, Distribution and Sale of Fine Papers.
- (4) Distribution and Sale of Coarse Papers in British Columbia.
- (5) Purchase of Maple Syrup and Maple Sugar in the Province of Quebec.
- (6) Manufacture, Distribution and Sale of Electrical Wire and Cable Products.
- (7) Resale Price Maintenance in the Sale of Soap and Soap Products in the Montreal District.
- (8) Price Discrimination between Retail Hardware Dealers in North Bay, Ont.
- (9) Resale Price Maintenance in the Sale of Certain Household Supplies in the Chicoutimi-Lake St. John District of Quebec.
- (10) Distribution and Sale of Gasoline at Retail in the Vancouver Area.
- (11) Resale Price Maintenance in the Sale of China and Earthenware.
- (12) Resale Price Maintenance in the Distribution and Sale of Television Sets in the Toronto District.
- (13) Manufacture, Distribution and Sale of Wire Fencing in Canada.
- (14) Distribution and Sale of Coal in the Timmins-Schumacher area of the Province of Ontario.
- (15) Loss Leader Selling.
- (16) Manufacture, Distribution and Sale of Beer in Canada.
- (17) Manufacture, Distribution and Sale of Asphalt and Tar Roofings and Related Products in Canada.
- (18) Resale Price Maintenance in the Distribution and Sale of Certain Household Appliances.
- (19) Manufacture, Distribution and Sale of Transmission and Conveyor Equipment and Related Products.
- (20) Retail Distribution and Sale of Coal in Winnipeg.
- (21) Manufacture, Distribution and Sale of Quilted Goods, Quilting Materials and Related Products.
- (22) Manufacture, Distribution and Sale of Boxboard Grades of Paperboard.
- (23) Production, Purchase and Sale of Flue-Cured Tobacco in Ontario.

These reports are obtainable from the Queen's Printer or from the office of the Director of Investigation and Research, Ottawa.

Section 3.—Trade Standards*

The Standards Division of the Department of Trade and Commerce consolidates under one Director the administration of the Electricity Inspection Act, the Gas Inspection Act, the Exportation of Power and Fluids and Importation of Gas Act, the Precious Metals Marking Act, the Weights and Measures Act, and the National Trade Mark and True Labelling Act.

Commodity Standards.—On Nov. 26, 1949, Parliament passed the National Trade Mark and True Labelling Act (R.S.C. 1952, c. 191) which provides a framework for the development of the National Standard and true labelling in order to circumvent public deception in advertising. In brief, the use of the National Standard is voluntary and compliance with commodity standards affects only those manufacturers who desire to use the national trade mark. In addition, where manufacturers descriptively label any commodity or container, it must be labelled accurately to avoid public deception. The regulation applying to the labelling of fur garments, for example, has been established as a code of fair practice throughout the merchandising field.

* Prepared by R. W. MacLean, Director, Standards Division, Department of Trade and Commerce, Ottawa.

Under the terms of the Precious Metals Marking Act 1946 (R.S.C. 1952, c. 215) commodities composed of gold, silver, platinum or palladium may be marked with a quality mark describing accurately the quality of the metal. Where such mark is used, a trade mark registered in Canada, or for which application for registration has been made, must also be applied. Gold-plated or silver-plated articles may also be marked under certain conditions outlined in the Act. The inspection staff of the Standards Division is engaged in the examination of advertising matter, in verifying the quality of articles offered for sale, and in checking the marks applied.

Weights and Measures.—The Weights and Measures Act (R.S.C. 1952, c. 292) prescribes the legal standards of weight and measure for use in Canada. The Act requires control of the type of all weighing and measuring devices used for commercial purposes and their periodic verification and surveillance directed towards the elimination of sales by short weight or short measure. The number of inspections made in the year ended Mar. 31, 1957, was 481,722 compared with 480,704 in 1955-56. The more important inspections comprised the following: weighing machines including scales of all kinds, 235,245; measuring machines for liquids 93,950; weights 131,101; other measures 21,426. Total expenditure was \$849,102 in 1956-57 compared with \$763,863 in 1955-56, and total revenue \$752,196 compared with \$710,206.

Electricity and Gas Inspection.—Responsibilities of the Standards Division under the Electricity Inspection Act (R.S.C. 1952, c. 94) and the Gas Inspection Act (R.S.C. 1952, c. 129) comprise the testing and stamping of every electricity and gas meter used throughout Canada for billing purposes, the object being to ensure the correct measurement of all electricity and gas sold. Canada is divided into 21 districts for administration of the two Acts and staff numbers 181. During the year ended Mar. 31, 1957, 1,224,752 electricity and gas meters were tested as compared with 1,202,415 in the preceding year. Revenue derived from the testing amounted to \$931,288, and expenditure to \$834,638.

1.—Electricity and Gas Meters in Use, Years Ended Mar. 31, 1948-57

| Year | Electricity Meters | Gas Meters | | | |
|-------------------------|-----------------------|-----------------------|----------------|------------------|----------------------|
| | | Manu- factured Gas | Natural Gas | Petroleum Gas | Total |
| | No. | No. | No. | No. | No. |
| 1948..... | 2,746,685 | 587,629 | 217,068 | 1,046 | 805,746 ² |
| 1949..... | 2,972,725 | 600,923 | 227,393 | 4,006 | 832,325 ² |
| 1950 ¹ | 3,188,013 | 606,395 | 239,448 | 3,841 | 849,688 ² |
| 1951..... | 3,405,432 | 610,096 | 252,468 | 33 | 862,602 ² |
| 1952..... | 3,590,422 | 609,262 | 263,130 | 68 | 872,465 ² |
| 1953..... | 3,779,739 | 599,140 | 277,248 | 1,270 | 877,663 ² |
| 1954..... | 3,967,952 | 593,698 | 298,166 | 429 | 892,297 ² |
| 1955..... | 4,175,534 | 420,432 | 486,768 | 536 | 907,736 |
| 1956..... | 4,380,889 | 416,338 | 507,875 | 3,151 | 927,364 |
| 1957..... | 4,571,485 | 350,558 | 599,633 | 4,843 | 955,034 |

Newfoundland included from 1950.

Includes acetylene meters.

The Exportation of Power and Fluids and Importation of Gas Act (3-4 Elizabeth II, c. 14) was passed in 1955 to replace the Electricity and Fluid Exportation Act which came into force in 1907. Under its provisions, no electric energy or fluid, whether liquid or gaseous, may be exported from Canada and no gas imported into Canada without a licence. Total exports of electric energy during the year ended Mar. 31, 1957, amounted to 5,388,135,621 kwh. There were also exports of natural gas and crude oil as well as imports of natural gas.

Section 4.—Patents, Copyrights and Trade Marks*

Letters patent are issued subject to the provisions of the Patent Act, (R.S.C. 1952, c. 203) effective since 1935. Applications for protection relating to patents should be addressed to the Commissioner of Patents, Ottawa.

2.—Patents Applied for, Granted, etc., Years Ended Mar. 31, 1953-57

| Item | | 1953 | 1954 | 1955 | 1956 | 1957 |
|-------------------------------|-----|---------|---------|-----------|-----------|-----------|
| Applications for patents..... | No. | 16,405 | 18,565 | 19,448 | 21,048 | 21,762 |
| Patents granted..... | " | 9,700 | 9,414 | 10,282 | 11,862 | 15,513 |
| Granted to Canadians..... | " | 742 | 606 | 570 | 652 | 761 |
| Caveats granted..... | " | 243 | 288 | 337 | 289 | 245 |
| Assignments..... | " | 12,525 | 13,127 | 20,062 | 17,783 | 19,124 |
| Fees received, net..... | \$ | 756,714 | 847,874 | 1,086,278 | 1,234,810 | 1,405,136 |

The number of Canadian patents granted increased fairly steadily each year from 4,522 at the beginning of the century to a peak of 15,513 in the year ended Mar. 31, 1957. Roughly, 72 p.c. of the patents granted were to residents of the United States; 11 p.c. to residents of the United Kingdom and other Commonwealth countries and 5 p.c. to residents of Canada.

Printed copies of patents issued from Jan. 1, 1949, to date are available at a nominal fee. The Canadian *Patent Office Record* gives a brief digest of each patent.

Canadian and foreign patents may be consulted at the Patent Office Library. The Library has records of British patents and abridged specifications thereof from 1617 to date, and of United States patents from 1872 to date, as well as many patents, indexes, journals and reports from Australia, New Zealand, South Africa, India, Pakistan, France, Belgium, Austria, Norway, Mexico, Italy, Sweden, the Netherlands, Switzerland, Japan, Korea and Brazil.

Copyrights, Industrial Designs and Timber Marks.—Registration of copyright is governed by the Copyright Act (R.S.C. 1952, c. 55) in force since 1921. Applications for protection relating to copyrights should be addressed to the Commissioner of Patents, Ottawa.

The Act sets out the qualifications for a copyright and its duration: "Copyrights shall subsist in Canada . . . in every original literary, dramatic, musical and artistic work, if the author was, at the date of the making of the work, a British subject, a citizen or subject

* The material relating to patents and copyrights was revised by J. W. T. Michel, Commissioner of Patents, and that relating to trade marks by J. P. McCaffrey, Registrar of Trade Marks, Department of the Secretary of State, Ottawa.

of a foreign country which has adhered to the Berne Convention and the additional Protocol . . . or resident within Her Majesty's Dominions. The term for which the copyright shall subsist shall, except as otherwise expressly provided by this Act, be the life of the author and a period of fifty years after his death."

Copyright protection is extended to records, perforated rolls, cinematographic films, and other contrivances by means of which a work may be mechanically performed. The intention of the Act is to enable Canadian authors to obtain full copyright protection in Canada, in all parts of the Commonwealth, in foreign countries of the Copyright Union and in the United States of America.

Protection of industrial designs and of timber marks is afforded under the Trade Mark and Union Label Act and the Timber Marking Act. Registers of such designs and marks are kept by the Copyright Branch of the Patent Office and information regarding them is published in the *Patent Office Record*.

3.—Copyrights, Industrial Designs and Timber Marks Registered, Years Ended Mar. 31, 1953-57

| Item | 1953 | 1954 | 1955 | 1956 | 1957 |
|--------------------------------------|--------|--------|--------|--------|--------|
| Copyrights registered..... No. | 4,976 | 5,060 | 5,193 | 5,151 | 5,099 |
| Industrial designs registered..... " | 431 | 560 | 286 | 586 | 601 |
| Timber marks registered..... " | 1 | 2 | 10 | 6 | 9 |
| Assignments registered..... " | 523 | 548 | 617 | 731 | 796 |
| Fees received, net..... \$ | 20,681 | 21,181 | 21,324 | 21,747 | 21,628 |

Trade Marks.—The Trade Marks Office, a Branch of the Department of the Secretary of State, administers the Trade Marks Act (1-2 Elizabeth II, c. 49) which covers all legislation concerning the registration and use of trade marks and supersedes from July 1, 1954, former legislation enacted under the Unfair Competition Act, the Industrial Design and Union Label Act and the Shop Cards Registration Act. All correspondence relating to an application for registration of a trade mark or for the use of a trade mark should be addressed to the Registrar of Trade Marks, Ottawa.

A *Trade Marks Journal* is published weekly giving particulars of every registration of a trade mark and every registration of a registered user, as well as other advertisements and rulings required under the Act. The required fee payable on application for registration of a trade mark is \$25 and for registration of a person as a registered user of a trade mark, \$20.

4.—Trade Marks Registered, Years Ended Mar. 31, 1953-57

| Item | 1953 | 1954 | 1955 | 1956 | 1957 |
|--|---------|---------|---------|---------|---------|
| Trade marks registered..... No. | 2,981 | 3,832 | 3,377 | 2,911 | 3,508 |
| Trade mark registrations assigned..... " | 1,499 | 2,063 | 2,040 | 2,652 | 1,858 |
| Trade mark registrations renewed..... " | 2,139 | 1,963 | 2,812 | 2,035 | 2,002 |
| Certified copies prepared..... " | 541 | 590 | 678 | 689 | 716 |
| Fees received, net..... \$ | 138,524 | 159,191 | 222,029 | 326,619 | 260,305 |

Section 5.—Subventions and Bounties on Coal*

The major problem of the Canadian coal mining industry arises from the fact that its fields are situated far distant from the main consuming markets of the Provinces of Ontario and Quebec while these markets lie in close proximity to the bituminous and anthracite fields of the United States. Transportation subventions, which have been maintained in varying degree during the past 28 years, were designed to further the movement of Canadian coals to some portions of central Canada by equalizing as far as possible the laid-down costs of Canadian coals with imported coals. Subventions have been regulated by Orders in Council as it has not been considered practicable to fix the assistance by statute owing to the frequent changes in the competitive situation.

5.—Expenditure for Coal Subventions by Province 1952-56

| Province | 1952 | 1953 | 1954 | 1955 | 1956 |
|---|------------------|------------------|-------------------|-------------------|------------------|
| Nova Scotia..... ton | 1,897,451 | 1,874,410 | 2,561,321 | 2,588,400 | 2,543,302 |
| \$ | 5,194,288 | 6,101,714 | 8,790,557 | 8,355,623 | 6,962,694 |
| New Brunswick..... ton | 2,851 | 8,981 | 58,036 | 33,108 | 21,359 |
| \$ | 3,780 | 7,853 | 141,513 | 55,925 | 42,214 |
| Saskatchewan..... ton | 139,555 | 187,118 | 256,597 | 259,518 | 247,814 |
| \$ | 113,645 | 161,439 | 218,341 | 222,454 | 215,407 |
| Alberta and eastern British Columbia..... ton | 613,651 | 606,749 | 998,558 | 730,905 | 782,228 |
| \$ | 1,161,810 | 946,638 | 2,982,347 | 2,058,942 | 2,375,295 |
| British Columbia bunker and export..... ton | 59,254 | 1,592 | 709 | 219 | 1,290 |
| \$ | 56,580 | 1,194 | 532 | 164 | 1,217 |
| Totals..... ton | 2,712,762 | 2,678,850 | 3,875,221 | 3,612,150 | 3,595,993 |
| \$ | 6,530,103 | 7,218,838 | 12,133,290 | 10,693,108 | 9,596,827 |

The Canadian Coal Equality Act (R.S.C. 1952, c. 34), formerly known as the Coke Bounty Act, and Regulations made thereunder, provide that so long as the provisions of Tariff Item No. 1019 in Schedule B to the Customs Tariff, permitting a 99-p.c. drawback on imported coal to be converted into coke for metallurgical purpose, remain in effect, the Government will pay to the manufacturers of iron and steel 49.5 cents per ton on bituminous coal mined in Canada and converted into coke and used by the manufacturer in the smelting in Canada of iron from ore, or in the manufacture in Canada of steel ingots and steel castings. This legislation, which implements one of the recommendations of the Royal Commission on Maritime Claims (1926) is designed to assist the Nova Scotia steel industry and only incidentally affects coal.

Bounties paid under this authority for the years 1952-56 were as follows:—

| Item | 1952 | 1953 | 1954 | 1955 | 1956 |
|------------------|---------|---------|---------|---------|---------|
| Quantity.....ton | 698,449 | 773,102 | 492,196 | 603,134 | 654,620 |
| Amount.....\$ | 345,732 | 382,685 | 243,637 | 298,551 | 324,037 |

* Prepared by H. H. Harris, Administrative Officer, Dominion Coal Board, Ottawa. Additional information on subventions and bounties, summarized from the *Report of the Royal Commission on Coal, 1946*, is given in the 1947 Year Book, pp. 770-771.

Section 6.—Control and Sale of Alcoholic Beverages

The retail sale of alcoholic beverages in Canada is controlled by provincial and territorial government liquor control authorities. Alcoholic beverages are sold directly by most of these liquor control authorities to the consumer or to licensees for resale. However, in some provinces beer and wine are sold directly by breweries and wineries to consumers or to licensees for resale. During the year ended Mar. 31, 1956, provincial government liquor control authorities operated 715 retail stores.

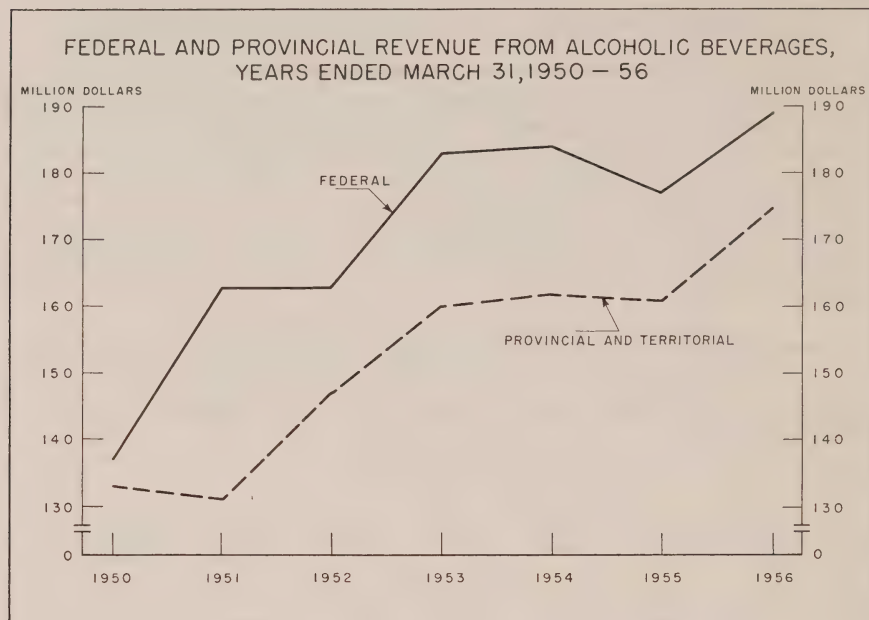
Table 6 shows revenue from administration of liquor control by provincial and territorial governments. Details are given in DBS report, *The Control and Sale of Alcoholic Beverages in Canada*.

6.—Provincial Revenue from Administration of Liquor Control, Years Ended Mar. 31, 1955 and 1956

NOTE.—Figures include revenue collected directly by the provincial and territorial governments as well as revenue of the liquor authorities, but exclude revenue resulting from a general retail sales tax on alcoholic beverages imposed by five provinces.

| Province or Territory | Net Income from Sales ¹ | Sales Tax | Licences and Permits ² | Fines and Confiscations ² | Commission on General Sales Tax Collections | Total |
|----------------------------|------------------------------------|------------------|-----------------------------------|--------------------------------------|---|--------------------|
| | \$ | \$ | \$ | \$ | \$ | \$ |
| 1955 | | | | | | |
| Newfoundland..... | 2,104,834 | ... | 1,005,898 ³ | 16,555 | 3,312 | 3,130,599 |
| Prince Edward Island..... | 888,152 | 272,987 | 26,072 | 15,716 | ... | 1,202,927 |
| Nova Scotia..... | 9,547,746 | ... | 279,817 | 86,222 | ... | 9,913,785 |
| New Brunswick..... | 6,288,563 | ... | 15,022 | 15,667 | 15,956 | 6,338,208 |
| Quebec..... | 22,493,418 | 1,553,015 | 11,548,703 | 238,922 | 34,556 | 35,888,614 |
| Ontario..... | 33,443,665 | ... | 14,510,304 | 111,755 | ... | 48,065,724 |
| Manitoba..... | 6,116,934 | ... | 2,113,449 | 80,800 | ... | 8,311,183 |
| Saskatchewan..... | 10,236,351 | ... | 53,126 | 81,363 | 45,084 | 10,415,924 |
| Alberta..... | 14,317,037 | ... | 858,708 | 191,156 | ... | 15,366,901 |
| British Columbia..... | 20,968,699 | ... | 213,467 | ... | 80,471 | 21,262,637 |
| Yukon Territory..... | 701,860 | 75,950 | 7,300 | 7,319 | ... | 792,429 |
| Northwest Territories..... | 263,406 | ... | 4,367 | 608 | ... | 268,381 |
| Canada, 1955..... | 137,370,665 | 1,901,952 | 30,636,233 | 846,083 | 179,379 | 160,934,312 |
| 1956 | | | | | | |
| Newfoundland..... | 1,979,476 | ... | 1,244,848 ³ | 20,065 | 3,566 | 3,247,955 |
| Prince Edward Island..... | 880,369 | 275,550 | 29,760 | 14,522 | ... | 1,200,201 |
| Nova Scotia..... | 10,247,881 | ... | 281,519 | 58,391 | ... | 10,587,791 |
| New Brunswick..... | 7,017,419 | ... | 14,848 | 22,092 | 17,731 | 7,072,090 |
| Quebec..... | 25,047,090 | 1,723,043 | 12,510,689 | 223,144 | 35,334 | 39,539,300 |
| Ontario..... | 38,559,862 | ... | 15,026,761 | 108,380 | ... | 53,695,003 |
| Manitoba..... | 6,565,402 | ... | 2,185,918 | 83,210 | ... | 8,834,530 |
| Saskatchewan..... | 10,085,031 | ... | 53,328 | 76,513 | 44,249 | 10,259,121 |
| Alberta..... | 15,085,287 | ... | 973,195 | 201,449 | ... | 16,259,931 |
| British Columbia..... | 22,373,721 | ... | 358,048 | ... | 87,306 | 22,819,075 |
| Yukon Territory..... | 774,287 ⁴ | 74,111 | 7,537 | 5,212 | ... | 861,147 |
| Northwest Territories..... | 363,691 | ... | 23,467 | 555 | ... | 387,713 |
| Canada, 1956..... | 138,979,516 | 2,072,704 | 32,709,918 | 813,533 | 188,186 | 174,763,857 |

¹ After provision for depreciation on fixed assets or for capital expenditure met out of operating income. ² Before deducting any payments to municipalities out of liquor control authority revenue. ³ Includes \$931,884 in 1955 and \$1,164,235 in 1956 commission on beer sold direct from local provincial breweries to public through licensed outlets under controlled price. ⁴ Includes \$30,720 applicable to previous year as a result of change in inventory valuation as at Mar. 31, 1955.



Specified revenue of the Government of Canada from alcoholic beverages comprising excise duties, excise taxes, customs duties and certain fees and licences in that connection are shown in Table 7. Federal Government revenues from the general sales tax on alcoholic beverages are not available.

**7.—Specified Revenue of the Federal Government from Alcoholic Beverages,
Years Ended Mar. 31, 1953-56**

NOTE.—Figures exclude revenue from the 10-p.c. general sales tax which is not available by commodities.

| Nature of Levy | 1953 | 1954 | 1955 | 1956 |
|--|------------------------|------------------------|-------------------------|--------------------|
| | \$ | \$ | \$ | \$ |
| On Spirits | 94,186,963 | 97,255,877 | 99,578,038 | 104,546,463 |
| Excise duty ¹ | 41,058,349 | 49,503,239 | 56,281,510 | 61,170,329 |
| Validation fees..... | 746,877 | ... | ... | ... |
| Licences..... | 7,750 | 7,500 | 8,000 | 6,500 |
| Import duty..... | 52,373,987 | 47,745,138 | 43,288,528 | 43,369,634 |
| On Malt and Malt Products | 85,996,795 | 83,656,336 | 73,948,851 | 80,880,028 |
| Excise duty on— | | | | |
| Beer..... | 5,294,283 ² | 4,799,823 ² | 72,676,282 ³ | 80,742,806 |
| Malt..... | 80,584,283 | 78,733,288 | 1,151,032 ³ | ... |
| Beer licence..... | 3,600 | 3,350 | 3,460 | 3,500 |
| Import duty on beer..... | 114,629 | 119,875 | 118,088 | 133,722 |
| On Wine | 3,095,441 | 3,216,033 | 3,435,853 | 3,643,584 |
| Excise taxes..... | 2,215,540 | 2,230,673 | 2,354,267 | 2,485,760 |
| Import duty..... | 879,901 | 985,360 | 1,081,586 | 1,157,824 |
| Totals | 183,279,199 | 184,128,246 | 176,962,742 | 189,070,075 |

¹ Collections on liquor imported for blending purposes are included with import duty.
malt beer.

² Excise duty on malt abolished Apr. 7, 1954.

³ Other than

Value of Sales of Alcoholic Beverages.—The figures in Table 8 do not always represent the final retail selling price of alcoholic beverages to the consumer because, when sold to licensees, only the selling price to the licensee is known.

8.—Value of Sales of Alcoholic Beverages, Years Ended Mar. 31, 1955 and 1956

| Province or Territory | Spirits | | Wines | | Beer | | Total | |
|----------------------------|----------------|----------------|---------------|---------------|----------------|----------------|----------------|----------------|
| | 1955 | 1956 | 1955 | 1956 | 1955 | 1956 | 1955 | 1956 |
| | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Newfoundland..... | 4,029 | 4,345 | 364 | 373 | 7,825 | 8,485 | 12,218 | 13,203 |
| Prince Edward Island..... | 1,922 | 1,956 | 156 | 158 | 925 | 917 | 3,003 | 3,031 |
| Nova Scotia..... | 13,087 | 13,699 | 2,103 | 2,343 | 11,593 | 11,893 | 26,783 | 27,935 |
| New Brunswick..... | 8,685 | 9,396 | 1,571 | 1,711 | 7,479 | 8,602 | 17,735 | 19,709 |
| Quebec..... | 60,919 | 67,058 | 9,509 | 10,377 | 86,190 | 94,086 | 156,618 | 171,521 |
| Ontario..... | 106,528 | 115,447 | 12,612 | 13,318 | 139,506 | 149,920 | 258,646 | 278,685 |
| Manitoba..... | 14,112 | 14,423 | 1,605 | 1,607 | 17,333 | 21,383 | 33,050 | 37,413 |
| Saskatchewan..... | 13,691 | 13,443 | 1,931 | 1,913 | 20,025 | 19,617 | 35,647 | 34,973 |
| Alberta..... | 24,167 | 25,780 | 2,127 | 2,255 | 26,419 | 26,735 | 52,713 | 54,770 |
| British Columbia..... | 41,335 | 44,668 | 3,481 | 3,653 | 28,231 | 31,076 | 73,047 | 79,397 |
| Yukon..... | 1,110 | 1,060 | 59 | 72 | 883 | 858 | 2,052 | 1,990 |
| Northwest Territories..... | 406 | 558 | 31 | 43 | 298 | 349 | 735 | 950 |
| Canada..... | 289,991 | 311,833 | 35,549 | 37,823 | 346,707 | 373,921 | 672,247 | 723,577 |

PART III.—BANKRUPTCIES AND COMMERCIAL FAILURES

The three Sections of this Part, although closely related as far as subject matter is concerned, cover different aspects of the field of bankruptcies and commercial failures; thus the statistics presented in each Section are not comparable with those given in the other Sections.

Section 1 is limited to the administration of bankrupt estates by the Superintendent of Bankruptcy under the Bankruptcy Act (including the Farmers' Creditors Arrangement Act). This Section, however, gives definite information on the amounts realized from the assets as established by debtors and indicates that values actually paid to creditors are invariably very much lower than such estimates alone would imply. It can therefore be assumed that this applies in even greater degree to the more extended fields covered in Sections 2 and 3.

Section 2 is limited to bankruptcies and insolvencies made under federal legislation (the Bankruptcy Act and the Winding-Up Act), but does not include failures, sales or seizures carried out apart from such federal legislation. The Dominion Bureau of Statistics coverage has been revised back to January 1955 to include business failures only (*see* p. 980). The figures of assets and liabilities are estimates made by the debtor and because they are not made uniformly should be accepted with reservations.

The statistics given in Section 3 are compiled by Dun and Bradstreet, Incorporated. This mercantile agency is interested primarily in credit information and its statistics include bankruptcies in general, insolvencies under provincial companies' Acts and such proceedings as bulk sales, bailiff's sales, landlord's seizures, etc., when loss to creditors results. On the other hand, the statistics do not include assignments of individuals, so that as a rule the totals run lower than those in Section 2. Because this agency was the only source of figures of commercial failures between the years 1875 and 1919, its statistics have an added value since they present a historical series from 1915, although the basis of classification was changed after 1933 (*see* text preceding Table 6, p. 984).

Section 1.—Administration of Bankrupt Estates*

Federal insolvency legislation now comprises the Bankruptcy Act 1949 (R.S.C. 1952, c. 14), the Farmers' Creditors Arrangement Act 1943 (R.S.C. 1952, c. 111), the Companies' Creditors Arrangement Act and to some extent the Winding-Up Act. The two Arrangement Acts are designed to avert failure and the statistics in this Section and in Section 2 therefore do not include proposals or arrangements under these Acts. When such proposals or arrangements are rejected by the creditors or fail in their purpose, the proceedings may then come under the Bankruptcy Act, the bankruptcy provisions of the Farmers' Creditors Arrangement Act or, in certain circumstances, the Winding-Up Act. There are no provisions in the Companies' Creditors Arrangement Act for the liquidation or winding-up of insolvent companies.

* Prepared by the Superintendent of Bankruptcy, Ottawa. Early bankruptcy and insolvency legislation is reviewed in the 1952-53 Year Book, pp. 914-915.

1.—Assets, Liabilities, Assets Realized and Cost of Administration under the Bankruptcy Act by Province 1955 and 1956

| Year and Province | BANKRUPTCIES UNDER GENERAL PROVISIONS OF THE ACT ¹ | | | | | |
|---|---|---|----------------------------------|-----------------------------|------------------------|------------------------------|
| | Estates Closed | Assets Estimated by Debtors | Liabilities Estimated by Debtors | Total Realization | Cost of Administration | Paid to Creditors |
| | No. | \$ | \$ | \$ | \$ | \$ |
| 1955 | | | | | | |
| Newfoundland..... | 1 | 14,020 | 30,816 | 5,554 | 1,920 | 3,634 |
| Nova Scotia..... | 8 | 66,304 | 181,218 | 16,282 | 5,138 | 11,144 |
| New Brunswick..... | 16 | 196,170 | 322,195 | 72,827 | 20,687 | 52,140 |
| Prince Edward Island..... | 3 | 52,961 | 57,459 | 23,721 | 2,904 | 20,817 |
| Quebec..... | 1,002 | 12,252,465 | 22,822,945 | 3,213,619 | 1,091,135 | 2,122,484 |
| Ontario..... | 295 | 5,441,485 | 8,510,979 | 1,273,823 | 404,963 | 868,860 |
| Manitoba..... | 17 | 560,293 | 752,241 | 125,863 | 35,939 | 89,924 |
| Saskatchewan..... | 18 | 171,574 | 275,497 | 51,884 | 11,533 | 40,351 |
| Alberta..... | 20 | 370,889 | 455,797 | 157,920 | 34,352 | 123,568 |
| British Columbia..... | 54 | 878,109 | 1,430,628 | 240,356 | 77,603 | 162,753 |
| Totals, 1955..... | 1,434 | 20,004,270 | 34,839,775 | 5,181,849 | 1,686,174 | 3,495,675² |
| 1956 | | | | | | |
| Newfoundland..... | 3 | 57,062 | 98,560 | 18,125 | 3,701 | 14,424 |
| Nova Scotia..... | 13 | 221,948 | 554,301 | 68,437 | 16,606 | 51,831 |
| New Brunswick..... | 8 | 167,281 | 194,754 | 55,549 | 8,627 | 46,922 |
| Prince Edward Island..... | 2 | 56,444 | 69,185 | 5,571 | 1,427 | 4,144 |
| Quebec..... | 603 | 6,175,812 | 12,143,071 | 1,851,319 | 711,873 | 1,139,446 |
| Ontario..... | 232 | 3,550,162 | 6,586,139 | 1,040,150 | 318,215 | 721,935 |
| Manitoba..... | 16 | 286,517 | 506,337 | 59,747 | 18,244 | 41,503 |
| Saskatchewan..... | 28 | 605,716 | 730,434 | 114,183 | 28,938 | 85,245 |
| Alberta..... | 14 | 172,292 | 243,132 | 66,683 | 13,207 | 53,476 |
| British Columbia..... | 34 | 970,981 | 1,424,453 | 277,019 ³ | 67,510 | 209,509 |
| Totals, 1956..... | 953 | 12,244,215 | 22,550,366 | 3,556,783 | 1,188,348 | 2,368,435² |
| PROPOSALS UNDER SECTION 27 (1) (a) OF THE ACT | | | | | | |
| | Proposals Completed | Unsecured Liabilities as Estimated by Debtors | | Paid to Unsecured Creditors | | |
| | No. | \$ | | \$ | | |
| 1955 | | | | | | |
| Newfoundland..... | — | — | | — | | |
| Nova Scotia..... | — | — | | — | | |
| New Brunswick..... | 2 | 84,038 | | 13,634 | | |
| Prince Edward Island..... | 1 | 3,273 | | 1,669 | | |
| Quebec..... | 63 | 1,954,926 | | 477,004 | | |
| Ontario..... | 8 | 757,868 | | 115,968 | | |
| Manitoba..... | — | — | | — | | |
| Saskatchewan..... | 1 | 6,006 | | 2,579 | | |
| Alberta..... | 1 | 9,471 | | 2,602 | | |
| British Columbia..... | — | — | | — | | |
| Totals, 1955..... | 76 | 2,815,582 | | 613,456 | | |

1.—Assets, Liabilities, Assets Realized and Cost of Administration under the Bankruptcy Act by Province 1955 and 1956—concluded

| Year and Province | PROPOSALS UNDER SECTION 27 (1) (a) OF THE ACT | | |
|---------------------------|---|---|-----------------------------|
| | Proposals Completed | Unsecured Liabilities as Estimated by Debtors | Paid to Unsecured Creditors |
| 1956 | No. | \$ | \$ |
| Newfoundland..... | — | — | — |
| Nova Scotia..... | — | — | — |
| New Brunswick..... | 2 | 148,557 | 14,409 |
| Prince Edward Island..... | — | — | — |
| Quebec..... | 50 | 1,597,491 | 457,799 |
| Ontario..... | 10 | 286,903 | 64,968 |
| Manitoba..... | — | — | — |
| Saskatchewan..... | — | — | — |
| Alberta..... | — | — | — |
| British Columbia..... | 2 | 49,914 | 29,112 |
| Totals, 1956..... | 64 | 2,082,865 | 566,288 |

¹ Includes summary administration provisions of the Bankruptcy Act. ² In addition to the amount paid to creditors by the trustee, secured creditors realized direct from their security approximately \$9,771,500 in 1955 and \$4,815,959 in 1956.

The administration of bankrupt estates is supervised by the Superintendent of Bankruptcy (first appointed in 1932) with the object of conserving as far as possible the assets of bankrupt estates for the benefit of the creditors.

Section 2.—Returns under the Bankruptcy and Winding-Up Acts as compiled by the Dominion Bureau of Statistics

The statistics concerning bankruptcies and insolvencies published by the Dominion Bureau of Statistics cover only the failures coming under federal legislation, i.e., the Bankruptcy Act and the Winding-Up Act. Certain documents relating to estates administered under these Acts have, since July 1920, been forwarded to the Dominion Statistician for statistical analysis. The Bankruptcy Act of 1949 altered the administration of bankruptcies by providing for proposals from insolvent persons. Since July 1950, agreements made under this method have not been included with the statistics of bankruptcy, so that subsequent figures are not strictly comparable with those for previous years. In Table 2 the number of proposals for recent years is shown so as to give a general impression of the trend.

Recently, a major revision has been made in the compilation and presentation of commercial failures statistics by the Dominion Bureau of Statistics. Previously, although these statistics covered only failures coming under federal legislation, they included assignments of individuals. The coverage of the revised series has been limited to business failures only, excluding failures of individuals such as wage-earners, salesmen and executive personnel. This revision was extended back to January 1955.

Failures of wage-earners (which are not classed as commercial failures in the revised DBS statistics) rose substantially to 973 in 1956 as compared with 657 in 1955. Most of the wage-earner failures occurred in Quebec in both years, the total for that Province in 1956 being 950.

In Table 2, bankruptcies and insolvencies for the year 1955 are given on both the old and the new bases, so as to show the extent to which the series has been altered. This practice is also followed in Tables 3 and 4.

The disparity in the number of cases closed in 1956 as compared with 1955 results from the fact that a change in the policy previously applied was made with effect from Jan. 1, 1956. Instead of considering, as heretofore, an estate closed upon the receipt

of the trustees final statement, the matter was considered as remaining under administration until discharge was granted by the court.

Three estates were reported during 1955 and one in 1956 under the provisions of the Farmers' Creditors Arrangement Act. Of the cases under administration at the inception of each year, two were completed in 1955 and two in 1956.

2.—Bankruptcies and Insolvencies under Federal Legislation by Province 1947-56

NOTE.—Figures from 1923 are given in the corresponding table of previous Year Books beginning with the 1941 edition.

| Year | Atlantic Provinces ¹ | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Total |
|-------------------------|------------------------------------|-------|------|------|-------|-------|------|-------|
| | No. | No. | No. | No. | No. | No. | No. | No. |
| 1947..... | 15 | 422 | 72 | 4 | 2 | 6 | 24 | 545 |
| 1948..... | 23 | 613 | 116 | 8 | 4 | 8 | 41 | 813 |
| 1949..... | 19 | 827 | 131 | 16 | 5 | 13 | 55 | 1,066 |
| 1950..... | 48 | 967 | 186 | 16 | 9 | 16 | 61 | 1,303 |
| 1951..... | 44 | 1,022 | 227 | 15 | 13 | 14 | 64 | 1,399 |
| 1952..... | 40 | 1,167 | 220 | 13 | 8 | 13 | 48 | 1,509 |
| 1953..... | 30 | 1,221 | 255 | 27 | 19 | 33 | 72 | 1,657 |
| 1954..... | 45 | 1,645 | 414 | 27 | 30 | 44 | 73 | 2,278 |
| 1955..... | 37 | 1,789 | 436 | 27 | 39 | 44 | 76 | 2,448 |
| 1955 ² | 36 | 1,180 | 406 | 27 | 37 | 42 | 67 | 1,795 |
| 1956..... | 37 | 1,265 | 507 | 23 | 34 | 41 | 59 | 1,966 |
| Proposals— | | | | | | | | |
| 1950..... | 2 | 66 | 7 | 1 | — | — | 3 | 79 |
| 1951..... | 4 | 160 | 8 | — | — | — | 4 | 176 |
| 1952..... | 1 | 172 | 15 | — | — | — | 3 | 191 |
| 1953..... | — | 158 | 9 | 2 | — | 1 | 1 | 171 |
| 1954..... | 1 | 416 | 29 | 4 | 1 | 1 | 4 | 456 |
| 1955..... | 7 | 466 | 36 | 2 | 1 | 1 | 5 | 518 |
| 1956..... | 9 | 738 | 49 | 2 | — | — | 14 | 812 |

¹ Newfoundland included from 1950.

² New series not strictly comparable with previous figures; see text on p. 981.

3.—Bankruptcies and Insolvencies under Federal Legislation by Branch of Business 1947-56

NOTE.—Figures from 1924 are given in the corresponding table of previous Year Books beginning with the 1942 edition.

| Year | Agriculture | Forestry, Fishing and Trapping | Mining | Manu- fac- turing | Con- struc- tion | Transporta- tion, Communi- cations and Storage | Trade | Finance and Public Utilities | Service | Not Classi- fied | Total |
|-------------------------|-------------|---|--------|-------------------------|------------------------|---|-------|---------------------------------------|---------|------------------------|-------|
| | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| 1947..... | 6 | 7 | — | 152 | 57 | 20 | 153 | 5 | 92 | 53 | 545 |
| 1948..... | 9 | 4 | 3 | 188 | 77 | 30 | 289 | 4 | 144 | 65 | 813 |
| 1949..... | 8 | 10 | 10 | 232 | 94 | 46 | 374 | 19 | 203 | 70 | 1,066 |
| 1950 ¹ | 24 | 7 | 5 | 257 | 97 | 40 | 502 | 20 | 273 | 78 | 1,303 |
| 1951..... | 20 | 8 | 8 | 269 | 126 | 42 | 570 | 27 | 255 | 74 | 1,399 |
| 1952..... | 42 | 2 | 7 | 305 | 114 | 45 | 569 | 32 | 279 | 114 | 1,509 |
| 1953..... | 37 | 6 | 10 | 359 | 124 | 52 | 650 | 30 | 286 | 103 | 1,657 |
| 1954..... | 48 | 17 | 15 | 416 | 135 | 67 | 973 | 41 | 408 | 158 | 2,278 |
| 1955..... | 52 | 8 | 8 | 305 | 287 | 116 | 882 | 44 | 454 | 292 | 2,448 |
| 1955 ² | 59 | 3 | 4 | 290 | 309 | 68 | 772 | 14 | 250 | 26 | 1,795 |
| 1956..... | 45 | 10 | 3 | 341 | 375 | 83 | 781 | 28 | 244 | 56 | 1,966 |

¹ Newfoundland included from 1950.

² New series not strictly comparable with previous years; see text on p. 981.

4.—Estimated Liabilities of Bankruptcies and Insolvencies 1947-56

| Year | Atlantic Provinces ¹ | Quebec | Ontario | Prairie Provinces | British Columbia | Total |
|-------------------------|------------------------------------|--------|---------|----------------------|---------------------|--------|
| | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| 1947..... | 177 | 6,954 | 1,963 | 257 | 726 | 10,078 |
| 1948..... | 331 | 10,622 | 2,728 | 431 | 1,612 | 15,724 |
| 1949..... | 189 | 12,842 | 5,222 | 1,117 | 1,985 | 21,356 |
| 1950..... | 1,211 | 16,065 | 4,700 | 1,127 | 1,769 | 24,872 |
| 1951..... | 947 | 15,958 | 5,919 | 729 | 2,359 | 25,912 |
| 1952..... | 831 | 20,249 | 6,653 | 621 | 1,304 | 29,658 |
| 1953..... | 1,692 | 18,022 | 8,270 | 2,841 | 1,993 | 32,818 |
| 1954..... | 1,029 | 30,825 | 15,036 | 4,675 | 1,577 | 53,142 |
| 1955..... | 1,855 | 33,927 | 16,324 | 4,196 | 2,837 | 59,138 |
| 1955 ² | 2,248 | 28,746 | 16,299 | 3,939 | 2,548 | 53,776 |
| 1956..... | 2,049 | 29,641 | 21,836 | 5,268 | 2,431 | 61,230 |

¹ Newfoundland included from 1950.² New series not strictly comparable with previous years; see text on p. 981.

5.—Bankruptcies and Insolvencies by Industries and Economic Areas 1956 with Totals and Liabilities for 1955 and 1956

| Industry | 1956 | | | | | Totals | | Total Liabilities | |
|--|---------------------------------|-------------|--------------|---------------------------|--------------------------|--------|------|-------------------|--------|
| | At- lantic Pro- vinces | Que- bec | On- tario | Prairie Pro- vinces | British Colum- bia | | | | |
| | No. | No. | No. | No. | No. | 1956 | 1955 | 1956 | 1955 |
| Agriculture..... | — | 35 | 8 | 2 | — | 45 | 59 | 597 | 613 |
| Forestry, Fishing and Trapping..... | — | 5 | 3 | — | 2 | 10 | 3 | 190 | 29 |
| Mining..... | — | 2 | — | 1 | — | 3 | 4 | 81 | 528 |
| Manufacturing..... | 7 | 234 | 81 | 10 | 9 | 341 | 290 | 15,078 | 14,684 |
| Foods and beverages..... | 2 | 23 | 1 | 2 | — | 37 | 15 | 1,466 | 207 |
| Textiles..... | — | 1 | 0 | — | — | 2 | 11 | 57 | 1,105 |
| Clothing..... | — | 35 | 6 | 1 | — | 42 | 53 | 1,054 | 4,672 |
| Wood products..... | 3 | 31 | 10 | 1 | 4 | 49 | 50 | 2,922 | 2,665 |
| Paper products and printing trades..... | — | 23 | 4 | — | — | 27 | 13 | 775 | 221 |
| Iron and steel and transportation equipment..... | 2 | 74 | 26 | 5 | 3 | 110 | 98 | 3,472 | 3,886 |
| Electrical apparatus and non-ferrous metals..... | — | 20 | 13 | — | 1 | 34 | 13 | 3,418 | 291 |
| Chemical products..... | — | 2 | — | — | — | 2 | 6 | 36 | 361 |
| Other industries..... | — | 25 | 11 | 1 | 1 | 38 | 31 | 1,877 | 1,276 |
| Construction..... | 4 | 209 | 129 | 17 | 16 | 375 | 309 | 16,772 | 9,651 |
| General contractors..... | 3 | 111 | 62 | 5 | 6 | 187 | 148 | 10,457 | 6,731 |
| Special trade contractors..... | 1 | 98 | 67 | 12 | 10 | 188 | 161 | 6,314 | 2,921 |
| Transportation, Communica- tions and Storage..... | 2 | 54 | 20 | 3 | 4 | 83 | 68 | 1,035 | 1,408 |
| Trade..... | 19 | 450 | 211 | 49 | 22 | 781 | 772 | 20,453 | 21,551 |
| Food..... | 3 | 120 | 45 | 3 | 3 | 174 | 175 | 3,047 | 4,172 |
| General merchandise..... | 6 | 32 | 9 | 9 | 4 | 60 | 43 | 1,509 | 1,337 |
| Automotive products..... | 2 | 14 | 19 | 5 | — | 40 | 41 | 1,679 | 2,707 |
| Filling stations..... | — | 12 | 10 | 2 | 1 | 25 | 24 | 203 | 359 |
| Clothing..... | — | 57 | 31 | 4 | 1 | 93 | 106 | 1,377 | 2,670 |
| Shoes..... | — | 6 | 2 | — | — | 8 | 17 | 226 | 255 |
| Hardware and building materials | 2 | 26 | 19 | 7 | 3 | 57 | 54 | 1,826 | 2,311 |
| Furniture, appliances and radios. | 3 | 62 | 38 | 13 | 9 | 125 | 93 | 5,504 | 2,981 |
| Fuel..... | 1 | 13 | 1 | — | — | 15 | 12 | 286 | 347 |
| Drugs..... | 1 | 8 | 3 | 1 | — | 13 | 10 | 230 | 146 |
| Jewellery..... | — | 4 | — | 2 | — | 15 | 27 | 272 | 569 |
| Other..... | 1 | 121 | 30 | 3 | 1 | 156 | 170 | 4,297 | 3,696 |

5.—Bankruptcies and Insolvencies by Industries and Economic Areas 1956 with Totals and Liabilities for 1955 and 1956—concluded

| Industry | 1956 | | | | | Totals | | Total Liabilities | |
|--|---------------------------------|--------------|--------------|---------------------------|--------------------------|--------------|--------------|-------------------|---------------|
| | At- lantic Pro- vinces | Que- bec | On- tario | Prairie Pro- vinces | British Colum- bia | 1956 | 1955 | 1956 | 1955 |
| | No. | No. | No. | No. | No. | | | \$'000 | \$'000 |
| Finance and Public Utilities..... | 1 | 23 | 3 | — | 1 | 28 | 14 | 1,042 | 205 |
| Service..... | 2 | 184 | 46 | 11 | 1 | 244 | 250 | 4,951 | 4,641 |
| Community..... | — | 15 | — | 1 | — | 16 | 10 | 907 | 91 |
| Recreational..... | — | 11 | 4 | — | — | 15 | 15 | 592 | 357 |
| Business..... | — | 17 | 5 | 1 | — | 23 | 32 | 766 | 485 |
| Personal..... | 2 | 141 | 37 | 9 | 1 | 190 | 193 | 2,686 | 3,708 |
| Not Classified..... | 2 | 39 | 6 | 5 | 4 | 56 | 26 | 1,030 | 466 |
| Totals..... | 37 | 1,265 | 507 | 98 | 59 | 1,966 | 1,795 | 61,230 | 53,776 |

Section 3.—Statistics of Industrial and Commercial Failures from Private Sources

A table showing commercial failures by class for the years 1915 to 1935 (and for Newfoundland for 1915 to 1932) is given in the 1936 Year Book, p. 969. In 1936 Dun and Bradstreet, Incorporated, from whose reports these figures were taken, adopted a new method of classification. The principal changes consisted of setting up a new group of construction enterprises previously included in manufacturing, and a new class for commercial service. Real estate companies, holding and other financial companies, and agents of various kinds were omitted. These changes had the effect of confining the failure records more to industrial and commercial lines of activity, and liabilities were reduced more in proportion to the number of failures, since the companies eliminated usually ran high in indebtedness. This series extends back to 1934.

6.—Industrial and Commercial Failures by Class 1950-56 and by Province 1955 and 1956

(Source: Dun and Bradstreet, Incorporated)

Note.—Figures from 1934 are given in the corresponding table of previous Year Books beginning with the 1937 edition.

| Year and Province | Manu- facturing | | Wholesale Trade | | Retail Trade | | Con- struction | | Commercial Service | | Totals | |
|--------------------------|--------------------|------------------|--------------------|------------------|-----------------|------------------|-------------------|------------------|-----------------------|------------------|--------------|------------------|
| | No. | Lia- bilities | No. | Lia- bilities | No. | Lia- bilities | No. | Lia- bilities | No. | Lia- bilities | No. | Lia- bilities |
| | | \$'000 | | \$'000 | | \$'000 | | \$'000 | | \$'000 | | \$'000 |
| 1950..... | 159 | 6,479 | 70 | 1,746 | 349 | 4,347 | 89 | 1,415 | 50 | 1,405 | 717 | 15,392 |
| 1951..... | 174 | 6,409 | 72 | 2,892 | 387 | 5,693 | 116 | 2,560 | 48 | 1,494 | 797 | 19,048 |
| 1952..... | 205 | 7,787 | 73 | 2,285 | 418 | 6,885 | 106 | 2,196 | 41 | 670 | 843 | 19,823 |
| 1953..... | 185 | 8,943 | 85 | 3,605 | 568 | 11,779 | 142 | 4,477 | 59 | 1,500 | 1,039 | 30,304 |
| 1954..... | 266 | 21,597 | 138 | 4,394 | 688 | 15,002 | 199 | 9,030 | 90 | 1,994 | 1,381 | 52,017 |
| 1955 | | | | | | | | | | | | |
| Newfoundland..... | — | — | 2 | 161 | 10 | 476 | 1 | 10 | 2 | 133 | 15 | 780 |
| P. E. Island..... | — | — | 1 | 468 | 2 | 46 | — | — | 1 | 5 | 4 | 519 |
| Nova Scotia..... | 1 | 94 | — | — | 3 | 326 | 2 | 264 | — | — | 6 | 684 |
| New Brunswick..... | 2 | 133 | — | — | 7 | 269 | 5 | 408 | — | — | 14 | 810 |
| Quebec..... | 119 | 3,593 | 77 | 2,642 | 390 | 8,137 | 130 | 2,782 | 71 | 1,517 | 787 | 18,671 |
| Ontario..... | 62 | 2,452 | 31 | 885 | 173 | 3,948 | 77 | 2,800 | 25 | 618 | 368 | 10,703 |
| Manitoba..... | 8 | 177 | 7 | 370 | 18 | 471 | 5 | 448 | 1 | 12 | 30 | 1,478 |
| Saskatchewan..... | 4 | 482 | 2 | 25 | 15 | 392 | 4 | 466 | 4 | 30 | 29 | 1,404 |
| Alberta..... | 3 | 178 | — | — | 8 | 313 | 1 | 15 | 2 | 105 | 14 | 611 |
| British Columbia... | 13 | 910 | 5 | 85 | 47 | 848 | 8 | 271 | 3 | 374 | 76 | 2,488 |
| Totals, 1955..... | 212 | 8,019 | 125 | 4,636 | 673 | 15,226 | 233 | 7,464 | 109 | 2,803 | 1,352 | 38,148 |

6.—Industrial and Commercial Failures by Class 1950-56 and by Province 1955 and 1956—concluded

| Year and Province | Manu- facturing | | Wholesale Trade | | Retail Trade | | Con- struction | | Commercial Service | | Totals | |
|--------------------------|--------------------|------------------|--------------------|------------------|-----------------|------------------|-------------------|------------------|-----------------------|------------------|--------------|------------------|
| | No. | Lia- bilities | No. | Lia- bilities | No. | Lia- bilities | No. | Lia- bilities | No. | Lia- bilities | No. | Lia- bilities |
| | | \$'000 | | \$'000 | | \$'000 | | \$'000 | | \$'000 | | \$'000 |
| 1956 | | | | | | | | | | | | |
| Newfoundland..... | 1 | 14 | 2 | 79 | 7 | 582 | 1 | 55 | 1 | 50 | 12 | 780 |
| P. E. Island..... | — | — | — | — | 2 | 20 | — | — | — | — | 2 | 20 |
| Nova Scotia..... | — | — | 2 | 205 | 3 | 141 | 1 | 22 | — | — | 6 | 368 |
| New Brunswick.... | 1 | 4 | 2 | 202 | 11 | 377 | 1 | 29 | 2 | 119 | 17 | 731 |
| Quebec..... | 114 | 4,637 | 53 | 2,913 | 345 | 5,896 | 125 | 4,336 | 54 | 1,111 | 691 | 18,893 |
| Ontario..... | 69 | 10,115 | 42 | 1,598 | 191 | 5,009 | 114 | 5,809 | 36 | 753 | 452 | 23,284 |
| Manitoba..... | 6 | 215 | 4 | 183 | 26 | 477 | 8 | 2,392 | 1 | 9 | 45 | 3,276 |
| Saskatchewan..... | — | — | — | — | 17 | 318 | 2 | 388 | — | — | 19 | 706 |
| Alberta..... | — | — | — | — | 11 | 279 | 5 | 459 | — | — | 16 | 738 |
| British Columbia... | 11 | 818 | 3 | 228 | 24 | 1,060 | 13 | 627 | 9 | 149 | 60 | 2,882 |
| Totals, 1956..... | 202 | 15,803 | 108 | 5,408 | 637 | 14,159 | 270 | 14,117 | 103 | 2,191 | 1,320 | 51,678 |

In 1955 and 1956, Quebec accounted for 58 and 52 p.c., respectively, of the total failures and 49 and 37 p.c., respectively, of the liabilities; Ontario had 27 and 34 p.c. of the failures and 28 and 45 p.c. of the liabilities in the same period. In 1955 and 1956 failures in the retail trade group accounted for almost one-half of the total.

7.—Industrial and Commercial Failures by Industrial Group 1954-56

(Source: Dun and Bradstreet, Incorporated)

Note.—Comparable figures from 1934 are given in the corresponding table of previous Year Books beginning with the 1937 edition.

| Industrial Group | Failures | | | Liabilities | | |
|---|------------|------------|------------|---------------|--------------|---------------|
| | 1954 | 1955 | 1956 | 1954 | 1955 | 1956 |
| | No. | No. | No. | \$'000 | \$'000 | \$'000 |
| Manufacturing..... | 266 | 212 | 202 | 21,597 | 8,019 | 15,803 |
| Foods..... | 26 | 12 | 16 | 1,014 | 260 | 589 |
| Textiles..... | 83 | 77 | 39 | 7,320 | 3,218 | 3,563 |
| Forest products..... | 58 | 37 | 48 | 3,736 | 1,506 | 3,448 |
| Paper, printing and publishing..... | 12 | 14 | 16 | 372 | 216 | 501 |
| Chemicals and drugs..... | 6 | 3 | 2 | 138 | 157 | 29 |
| Fuels..... | 6 | 3 | 1 | 814 | 119 | 30 |
| Leather and leather products..... | 11 | 10 | 7 | 3,051 | 377 | 350 |
| Stone, clay, glass and products..... | 7 | 4 | 7 | 513 | 128 | 260 |
| Iron and steel..... | 8 | 8 | 15 | 658 | 385 | 1,911 |
| Machinery..... | 16 | 14 | 14 | 2,387 | 671 | 1,788 |
| Transportation equipment..... | 6 | 4 | 7 | 242 | 165 | 1,434 |
| All other..... | 27 | 26 | 30 | 1,352 | 817 | 1,900 |
| Wholesale Trade..... | 138 | 125 | 108 | 4,394 | 4,636 | 5,408 |
| Farm products, foods, groceries..... | 24 | 31 | 27 | 908 | 1,857 | 1,377 |
| Clothing and furnishings..... | 8 | 6 | 6 | 425 | 211 | 112 |
| Dry goods and textiles..... | 24 | 11 | 6 | 707 | 905 | 242 |
| Lumber, building materials, hardware..... | 9 | 11 | 12 | 289 | 479 | 1,060 |
| Chemicals and drugs..... | 6 | 4 | 4 | 105 | 59 | 116 |
| Fuels..... | — | 1 | — | — | 43 | — |
| Automotive products..... | 6 | 5 | 4 | 235 | 89 | 189 |
| All other..... | 61 | 56 | 49 | 1,725 | 993 | 2,312 |

7.—Industrial and Commercial Failures by Industrial Group 1954-56—concluded

| Industrial Group | Failures | | | Liabilities | | |
|---|--------------|--------------|--------------|---------------|---------------|---------------|
| | 1954 | 1955 | 1956 | 1954 | 1955 | 1956 |
| | No. | No. | No. | \$'000 | \$'000 | \$'000 |
| Retail Trade..... | 688 | 673 | 637 | 15,002 | 15,226 | 14,159 |
| Foods..... | 121 | 130 | 110 | 1,506 | 1,660 | 1,377 |
| Farm supplies, general stores..... | 22 | 24 | 32 | 344 | 702 | 1,075 |
| General merchandise..... | 32 | 19 | 19 | 584 | 337 | 553 |
| Apparel..... | 116 | 119 | 83 | 2,305 | 2,496 | 1,715 |
| Furniture, household furniture..... | 116 | 79 | 114 | 3,311 | 1,998 | 3,949 |
| Lumber, building materials, hardware..... | 33 | 45 | 38 | 739 | 1,248 | 1,112 |
| Automotive products..... | 109 | 94 | 86 | 3,768 | 4,283 | 2,430 |
| Restaurants..... | 76 | 95 | 100 | 1,134 | 1,164 | 1,171 |
| Drugs..... | 10 | 10 | 7 | 78 | 139 | 107 |
| All other..... | 53 | 58 | 48 | 1,233 | 1,199 | 670 |
| Construction..... | 199 | 233 | 270 | 9,030 | 7,464 | 14,117 |
| General contractors..... | 86 | 115 | 129 | 3,953 | 3,766 | 6,372 |
| Carpenters and builders..... | 11 | 10 | 13 | 377 | 102 | 298 |
| Building sub-contractors..... | 97 | 103 | 119 | 3,508 | 2,923 | 6,391 |
| Other contractors..... | 5 | 5 | 9 | 1,192 | 673 | 1,056 |
| Commercial Service..... | 90 | 109 | 103 | 1,994 | 2,803 | 2,191 |
| Cleaners and dyers, tailors..... | 11 | 18 | 13 | 88 | 368 | 177 |
| Haulage, buses, taxis, etc..... | 34 | 34 | 38 | 1,027 | 836 | 680 |
| Hotels..... | 6 | 17 | 12 | 273 | 541 | 666 |
| Laundries..... | 2 | 4 | 7 | 125 | 514 | 188 |
| Undertakers..... | — | 3 | 2 | — | 72 | 79 |
| All other..... | 37 | 33 | 31 | 481 | 472 | 401 |
| Totals..... | 1,381 | 1,352 | 1,320 | 52,017 | 38,148 | 51,678 |

CHAPTER XXII.—FOREIGN TRADE

CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. I of this volume.

The subject of foreign trade covers more than the treatment of imports and exports of commodities, important though this is. In its broader sense foreign trade is made up of the total international exchanges of goods, services, securities and other financial exchanges, all of which are presented in their proper relationship in this Chapter. Following Part I, which is a review of Canada's trade during recent years, Part II gives detailed statistics of external commodity trade. Part III summarizes external transactions from the standpoint of the balance of international payments. Part IV outlines the various ways in which the Federal Government promotes and encourages trade relationships, and contains a brief review of the Canadian tariff structure.

PART I.—REVIEW OF FOREIGN TRADE*

There has been a marked general increase in international trade in the postwar years, although the rate of growth has not been steady. The prewar volume of trade had been regained by 1948 and there was a sharp value upswing in 1951, caused mainly by the high prices of the Korean boom. A period of readjustment then followed, but by the second half of 1954 economic activity and trade were again generally on the increase. In 1955 the volume of world trade was 18 p.c. higher than the previous record of 1951 and in 1956 was about 10 p.c. higher than in 1955; the increase in value in the latter year was 11 p.c. The rate of increase was fairly constant in the two years, but declined sharply in 1957 so that the relative change in that year was slight. It is interesting to note that while the advance in 1955 kept roughly in line with world production, trade in 1956 increased at a rate almost double that of industrial production. Also of interest in the general development of

* Prepared in the External Trade Section, International Trade Division, Dominion Bureau of Statistics.

trade in 1956 were the continued relative decline of trade between industrial and non-industrial areas and the increased importance of North America in the trade of industrial areas.

In 1956 Canada ranked fourth among the trading nations, while the United States and the United Kingdom retained first and second positions. Canada has been fourth every year since 1954 when the Federal Republic of Germany recovered its prewar strength and took third place among the world's traders. The Canadian share of world trade was about 6 p.c. in 1956, and on a per capita basis this placed Canada first, ahead of Belgium and Luxembourg, as in 1953. In 1954 and 1955, Canada was second to New Zealand.

1.—World Trade by Leading Countries 1955 and 1956

SOURCES: International Monetary Fund, *International Financial Statistics*, September 1957, and United Nations Statistical Office, *Population and Vital Statistics Reports*, Vol. IX, Nos. 2, 3.

| Country | 1955 | | | 1956 | | | Population mid-1956 | Trade per Capita ¹ | |
|--------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|---------------------|-------------------------------|------------------|
| | Exports f.o.b. | Imports c.i.f. | Total Trade | Exports f.o.b. | Imports c.i.f. | Total Trade | | 1955 | 1956 |
| | U.S. \$ '000,000 | U.S. \$ '000,000 | U.S. \$ '000,000 | U.S. \$ '000,000 | U.S. \$ '000,000 | U.S. \$ '000,000 | '000 | U.S. \$ | U.S. \$ |
| United States..... | 15,553 | 12,369 | 27,922 | 19,081 | 13,752 | 32,833 | 171,237 | 167 ² | 192 ² |
| United Kingdom..... | 8,468 | 10,867 | 19,335 | 9,292 | 10,890 | 20,182 | 51,486 | 377 | 392 |
| Germany, Federal Republic..... | 6,135 | 5,793 | 11,928 | 7,358 | 6,617 | 13,975 | 53,800 | 229 | 260 |
| Canada..... | 4,784 | 5,152 | 9,936 | 5,277 | 6,255 | 11,532 | 16,081 | 633 | 717 |
| France..... | 4,911 | 4,739 | 9,650 | 4,538 | 5,553 | 10,091 | 43,620 | 218 | 231 |
| Netherlands..... | 2,688 | 3,208 | 5,896 | 2,862 | 3,712 | 6,574 | 10,888 | 549 | 604 |
| Belgium and Luxembourg.. | 2,776 | 2,830 | 5,606 | 3,162 | 3,272 | 6,434 | 9,236 | 611 | 697 |
| Japan..... | 2,011 | 2,471 | 4,482 | 2,501 | 3,230 | 5,731 | 90,000 | 50 | 64 |
| Italy..... | 1,856 | 2,711 | 4,567 | 2,157 | 3,169 | 5,326 | 48,223 | 95 | 110 |
| Sweden..... | 1,726 | 1,997 | 3,723 | 1,945 | 2,209 | 4,154 | 7,316 | 513 | 568 |
| Australia..... | 1,748 | 2,160 | 3,908 | 1,887 | 1,937 | 3,824 | 9,428 | 422 | 406 |
| Venezuela..... | 1,912 | 1,092 | 3,004 | 2,124 | 1,249 | 3,373 | 5,949 | 520 | 567 |
| World Totals³..... | 84,177 | 88,969 | 173,146 | 93,335 | 97,910 | 191,245 | 1,855,000 | 96 | 103 |

¹ New Zealand, which ranked first in per capita trade in 1955 and second in 1956, ranks far down on the list in total trade.

² Including military aid extended to other countries.

³ Excludes China, Union of Soviet Socialist Republics, and the communist countries of Eastern Europe (except Yugoslavia).

Canadian Trade in Recent Years.—Following the readjustment of the latter part of 1953 and the beginning of 1954, Canadian trade showed signs of recovery in the second half of 1954. Both imports and exports recovered sharply in 1955 and the value of total trade was a record at 12.7 p.c. above the value of 1954. In 1956 the trend continued upward and reached a value almost 17 p.c. greater than in the previous year. In 1957 trade was again high but was changed little relative to that of 1956.

The value of total exports in 1956 was \$4,860,000,000, 11 p.c. higher than in 1955. The value of imports rose more sharply to \$5,700,000,000 or 21 p.c. above 1955 and thus the import balance increased to \$840,000,000. Although both import and export prices

were higher, about three-quarters of the export and nine-tenths of the import value gains resulted from changes in volume. In 1957 total exports were around \$4,936,000,000, while imports declined slightly to \$5,623,000,000.

At \$840,000,000, the import balance was at its highest ever in 1956 and, in relative terms, represented about 15 p.c. of total imports, almost double the comparable percentage for 1955. This ratio was surpassed only in the early years of the century, most notably in 1910, 1911 and 1912 when the balance ranged from over 30 p.c. to over 40 p.c. of total imports. The explanation of a high level of the import balance is, of course, to be found, as in the early 1900's, in the pattern and pace of economic growth.

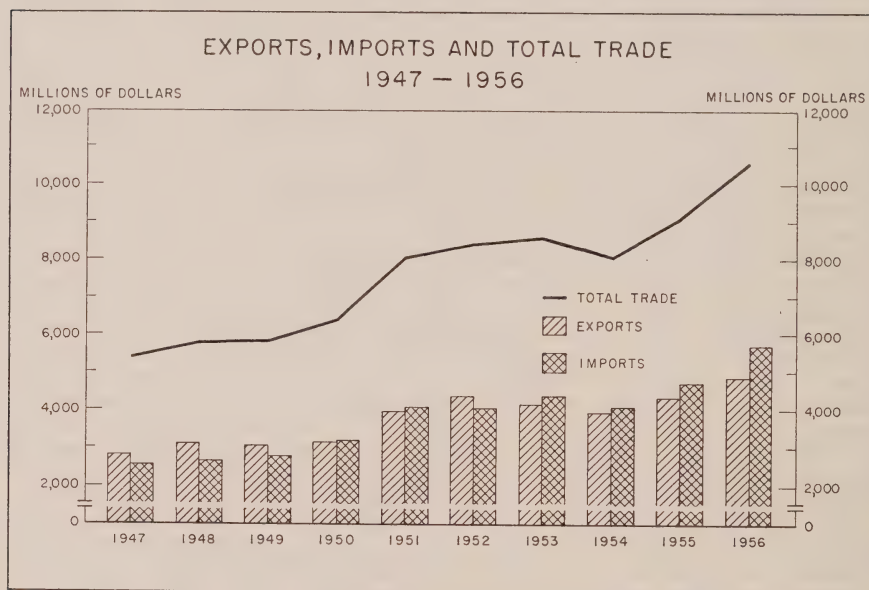
There were general import value gains in 1956 for all main commodity groups and records were set for all but the animal products and textile groups. In 1957, although individual commodities recorded diverse and sometimes fairly sharp movements, the general import changes were moderate compared with those of 1956. The 1956 gains were most marked in the iron and steel group which rose by about 39 p.c., almost doubling the 1955 increase, and thus recorded the largest absolute and relative gain among the major commodity groups. The share of iron and steel products in the import total rose from one-third to two-fifths, and the group accounted for three-fifths of the total import gain. This relates to the fact that the major impetus to domestic expansion came from a 33-p.c. increase in investment in new construction, machinery and equipment. In addition, and notwithstanding the increased relative importance of investment, the rates of growth of both consumer expenditures and exports were maintained and the total supply of goods available in 1956 was more than 12 p.c. higher than in 1955. The high level of demand for iron and steel products, the stable increase in consumer spending and exports, and the relative scarcity of labour and materials made it essential to supplement significantly the total supply of goods and services, and imports provided about one-third of the increase. In 1957 the imports of iron and steel products reflected the levelling off of industrial activity and declined somewhat as compared with 1956. Contrary to the general trend in this group, imports of pipes, tubes and fittings, on account of the extensive pipeline construction activities, rose by over 30 p.c. and displaced both tractors and parts and passenger automobiles in individual commodity ranking.

On the export side, the outstanding feature of 1956 was the strong recovery of wheat sales (partly as a result of poor European crops in the winter of 1955-56 and of unusually large shipments to the Soviet Union and Eastern Europe) which, together with a sharp increase in barley sales, resulted in a 14-p.c. advance for grains and farinaceous products over 1955. The regular European wheat market and the special Soviet market were much softer in 1957 and there was consequently a marked decline in wheat sales and thus in grains as a whole. Wheat itself, notwithstanding the decline, remained in second place among commodity exports, a position it regained in 1956 from planks and boards as a result of a 50-p.c. gain. Newsprint, the leading export commodity in every postwar year except 1949 and 1952 (when wheat was in top place) again ranked first in 1956 and 1957, increasing in value in both years, but more moderately in the latter. Forest products as a whole declined in value in 1956 and 1957, the decrease in 1957 being especially marked for planks and boards which suffered from the decline in housing construction in the United States. In 1956 the values of animals and animal products, and fibres, textiles and products also declined, but all the other commodity groups gained. Record values were established for iron and its products, non-ferrous metals, non-metallic minerals, and chemicals and allied products. In 1957 the major export gains were made by such minerals as petroleum, uranium and nickel, and by cattle and seeds.

The accelerated pace of exploration and development of Canada's natural resources and the increased capacity of other industries during 1955 and 1956 contributed strongly to the greater import demand for machinery and equipment and was also reflected in the upsurge in foreign sales of such 'new' exports as oil, iron ore and uranium. Compared with 1954, the 1956 exports of these three commodities increased by 1,545 p.c., 264 p.c. and 568 p.c., respectively; their respective shares in the export total in 1956 were 2.2 p.c., 3.0 p.c. and 1.0 p.c.

2.—Summary Statistics of Canadian Trade 1952-56

| Item | 1952 | 1953 | 1954 | 1955 | 1956 | Change | |
|-----------------------------------|----------------|----------------|----------------|----------------|-----------------|--------------------|--------------------|
| | | | | | | 1954 to 1955 | 1955 to 1956 |
| | \$'000,000 | \$'000,000 | \$'000,000 | \$'000,000 | \$'000,000 | p. c. | p. c. |
| Value of Trade— | | | | | | | |
| Domestic exports..... | 4,301.1 | 4,117.4 | 3,881.3 | 4,281.8 | 4,789.7 | +10.3 | +11.9 |
| Re-exports..... | 54.9 | 55.2 | 65.6 | 69.5 | 73.4 | — | — |
| Imports..... | 4,030.5 | 4,382.8 | 4,093.2 | 4,712.4 | 5,705.4 | +15.1 | +21.1 |
| Total Trade..... | 8,386.4 | 8,555.4 | 8,040.1 | 9,063.7 | 10,568.6 | +12.7 | +16.6 |
| Trade balance..... | +325.5 | -210.2 | -146.3 | -361.1 | -842.3 | — | — |
| Price Indexes (1948=100)— | | | | | | | |
| Domestic exports..... | 121.8 | 118.3 | 115.1 | 117.7 | 121.3 | + 2.3 | + 3.1 |
| Imports..... | 110.4 | 109.4 | 109.5 | 110.5 | 113.0 | + 0.9 | + 2.3 |
| Volume Indexes (1948=100)— | | | | | | | |
| Domestic exports..... | 114.9 | 113.2 | 109.6 | 118.3 | 128.4 | + 7.9 | + 8.5 |
| Imports..... | 138.0 | 151.0 | 141.0 | 160.3 | 190.0 | +13.7 | +18.5 |



The Canadian deficit on visible trade (like that on invisible trade) was financed by a marked upsurge in the net inflow of foreign capital. This upsurge sustained the high demand for the Canadian dollar, which continued to be at a premium over the United States dollar throughout 1956. The Canadian price of the U.S. dollar declined continuously until December when, averaging 96.05 cents, it reached its lowest postwar monthly level since the Canadian dollar was freed from exchange control in October 1950. This development is all the more noteworthy when it is considered that the impressive increase in imports from the United States might have been expected to have had an equilibrating influence on the exchanges.

3.—Price of the United States Dollar in Canada by Month 1950-56

NOTE.—Rates published by Bank of Canada. To Oct. 1, 1950, average (for business days in period) of mid-rate between official buying and selling rates; from Oct. 2, 1950, noon average market rate for business days in period.

(Canadian cents per U.S. dollar)

| Month | 1950 | 1951 | 1952 | 1953 | 1954 | 1955 | 1956 |
|----------------------------|---------------|---------------|--------------|--------------|--------------|--------------|--------------|
| January..... | 110.25 | 105.17 | 100.48 | 97.05 | 97.29 | 96.60 | 99.87 |
| February..... | 110.25 | 104.92 | 100.10 | 97.73 | 96.65 | 97.69 | 99.91 |
| March..... | 110.25 | 104.73 | 99.59 | 98.33 | 97.08 | 98.43 | 99.87 |
| April..... | 110.25 | 105.99 | 98.09 | 98.37 | 98.25 | 98.62 | 99.68 |
| May..... | 110.25 | 106.37 | 98.38 | 99.41 | 98.43 | 98.59 | 99.18 |
| June..... | 110.25 | 106.94 | 97.92 | 99.44 | 98.13 | 98.44 | 98.53 |
| July..... | 110.25 | 106.05 | 96.91 | 99.18 | 97.44 | 98.46 | 98.18 |
| August..... | 110.25 | 105.56 | 96.11 | 98.83 | 97.02 | 98.51 | 98.12 |
| September..... | 110.25 | 105.56 | 95.98 | 98.43 | 96.97 | 98.78 | 97.77 |
| October..... | 105.34 | 105.08 | 96.43 | 98.25 | 96.98 | 99.53 | 97.32 |
| November..... | 104.03 | 104.35 | 97.66 | 97.77 | 96.92 | 99.94 | 96.44 |
| December..... | 105.31 | 102.56 | 97.06 | 97.31 | 96.80 | 99.95 | 96.05 |
| Annual Average..... | 108.92 | 105.28 | 97.89 | 98.34 | 97.32 | 98.63 | 98.41 |

Changes in the Structure of Trade.*—The direction of Canadian trade in the postwar period has remained reasonably consistent although there have been some changes in relative shares. The United States has long been Canada's leading trading partner and in 1956 accounted for 66.0 p.c. of the total trade (59.0 p.c. of the export total and 73.0 p.c. of the import total). The United Kingdom, in second place, was responsible in 1956 for 16.8 p.c. of Canadian exports and 8.5 p.c. of Canadian imports, while the share of total trade was 12.3 p.c. In 1946 the United States had 55.0 p.c. of Canadian trade against 17.6 p.c. recorded by the United Kingdom; by 1948 the respective figures had become 57.9 p.c. and 17.2 p.c., and in 1955 they were 66.9 p.c. and 13.0 p.c. From 1946 to 1956, the share of the Commonwealth (excluding the United Kingdom) in Canadian trade fell from 9.4 p.c. to 4.5 p.c., whereas the European portion remained more constant, declining from 8.6 p.c. to 7.9 p.c. Latin American trade was even more consistent at just over 5 p.c. in both years.

The nature and volume of any country's international trade are both functions of a complex of factors which vary, more or less, over time. The more important of these factors are the natural endowment of a country, the stage it has reached in its economic development, the number and nature of institutional impediments to trade, and the general condition of the world economy. Canada has always been dependent on trade, but the pattern of trade has changed somewhat with changing circumstances, as is indicated by a comparison of the figures for 1939, 1955 and 1956. In 1939 the level of economic activity represented only a partial recovery on that of 1929, but the comparison is, nonetheless, useful because 1939 is something of a half-way mark in economic change since 1929, and also because it relates directly postwar and prewar conditions.

In 1939 the gross national product stood at \$6,166,000,000 (in current prices) and by 1956 had risen to \$29,866,000,000. Exports of goods and services and gross domestic investment were respectively 25 p.c. and 16 p.c. of the gross national expenditure in the

* Broader discussions of structural changes (in the periods 1926-29, 1936-39, 1946-49 and 1951-54) are given in the *Review of Foreign Trade* for the first half-year 1955, the calendar year 1955, and the first half-year 1956.

former year and 21 p.c. and 25 p.c. in the latter year. Imports of goods and services, in proportion to the total domestic demand for goods and services, remained relatively stable, accounting for 24 p.c. in 1939 and 25 p.c. in 1956. These figures, as a broad measure, suggest that there has been only a slight decline in the place of trade in the Canadian economy; and that the increased importance of investment, coupled with a comparatively stable domestic consumption and level of imports, is reflected in the slight relative decline in exports.

Although the general importance of trade has remained steady, there have been some significant changes that reflect developments in the domestic economy and changes in the pattern of world trade. Most of these changes represent a steady continuation of trends that had been evident in the period from 1929, but several represent quite sharp accentuations of earlier trends. On the average, in the years 1936 to 1939, 38.4 p.c. of Canada's domestic exports originated on the farms. By 1955 the relative share of farm produce had fallen to 20.3 p.c. and although the figure was somewhat higher in 1956 at 22.7 p.c. it was still markedly below the average of 1936-39. Behind this decline was the decrease in the importance of wheat which had earlier been the leading export commodity and which had accounted for about 50 p.c. of the export total. It should, however, be remembered that the decline in wheat is but relative—in 1939 a total of 163,000,000 bu. of wheat were exported at a value of \$109,000,000 whereas in 1956, 302,000,000 bu. were exported at a value of \$513,000,000—and that the main reason for the decline is simply that the world and Canada were trading more widely in other commodities in 1956 than they were in 1939.

Contrary to the trend in products of farm origin, products in the forest and mineral origin groups have shown relative gains—those of the former being more sharp between 1936-39 and 1956 than between 1926-29 and 1936-39. Forest products in 1936-39 accounted for 24.7 p.c. of total domestic exports, whereas in 1955 the share had risen to 35.5 p.c., as against 31.6 p.c. in 1956. Mineral products, standing at 29.1 p.c. in 1936-39, moved upwards to 35.3 p.c. in 1955 and still further to 36.7 p.c. in 1956. The changed standing of forest products—part of which is attributable to relatively greater price increases—reflects the increased importance of newsprint which from 1951 to 1954 averaged 14 p.c. of total exports and replaced wheat as the leading export commodity. The changed standing of newsprint is the result of the increasing size of newspapers, the greater allocation of space to advertising, and the absence of a U.S. tariff. The growth of mineral products reflects the increased diversification of the Canadian economy and technological progress. Non-ferrous metals and products, which in 1926-29 accounted for only 7.4 p.c. of the domestic export total, had by 1951-54 increased its proportionate share to 16.5 p.c.—a development resulting partly from the very marked development in the Canadian aluminum industry.

On the whole, the import pattern has been more consistent than that of exports although, here too, significant changes have been recorded in commodities of farm and mineral origin. Farm commodities contributed 34.8 p.c. of the import total in 1936-39 but only 18.5 p.c. in 1956, while the share of commodities of mineral origin increased from 49.8 p.c. in 1936-39 to 58.5 p.c. in 1955 and 62.8 p.c. in 1956. This increase stems from the fact that 1955 and 1956 were years of very marked economic growth, with consequently a high demand for capital goods and structural materials. Historically, manufactured goods have always played a large part in Canadian imports, but there is, nevertheless, significance in the increased share of the import total shown by the chiefly manufactured products group which advanced from 62.2 p.c. in 1936-39 to 77.1 p.c. in 1956. Although Canada has moved from the position of being predominantly a primary producer, it has not thereby become an overwhelmingly industrial country in the sense that the United Kingdom is an industrial country. The share of raw materials in the domestic export total fell from 46.7 p.c. in 1926-29 to 32.2 p.c. in 1936-39 but has been reasonably consistent since; and while wheat is no longer in a position of relative pre-eminence, Canada's farms and forests were still, in 1956, the origin of 54.3 p.c. of the total domestic exports.

4.—Trade of Canada by Industrial Origin, Annual Averages for Certain Periods 1926-56
(Millions of dollars)

| Origin Group | Domestic Exports | | | | | Imports | | | | |
|---------------------------|---------------------|---------|----------------|----------------------|----------------------|----------------------|---------|----------------|---------|---------|
| | Years Ended Mar. 31 | | Calendar Years | | | Years Ended Mar. 31 | | Calendar Years | | |
| | 1926-29 | 1936-39 | 1946-49 | 1951-54 | 1955 | 1926-29 | 1936-39 | 1946-49 | 1951-54 | 1955 |
| Farm Origin | | | | | | | | | | |
| Raw materials..... | 712.7 | 340.3 | 942.5 | 1,143.6 | 870.4 | 1,088.3 | 234.5 | 699.4 | 922.7 | 959.6 |
| Partly manufactured..... | 206.9 | 208.9 | 551.9 | 850.6 | 603.5 | 808.1 | 95.0 | 279.2 | 403.7 | 409.2 |
| Chiefly manufactured..... | 10.6 | 8.4 | 16.4 | 19.5 | 21.9 | 22.7 | 41.5 | 104.0 | 126.5 | 117.1 |
| | 201.0 | 128.1 | 374.2 | 273.5 | 244.9 | 257.5 | 98.0 | 316.2 | 392.4 | 483.2 |
| Wild Life Origin | | | | | | | | | | |
| Raw materials..... | 22.7 | 16.3 | 27.3 | 25.3 | 30.3 | 27.8 | 12.7 | 9.6 | 11.4 | 14.6 |
| Partly manufactured..... | 22.4 | 13.6 | 26.3 | 24.1 | 28.4 | 26.0 | 10.3 | 7.5 | 8.8 | 11.4 |
| Chiefly manufactured..... | 0.2 | 0.6 | 0.5 | 0.7 | 1.5 | 1.3 | 2.0 | 1.3 | 1.5 | 2.4 |
| | 0.1 | 0.1 | 0.5 | 0.6 | 0.4 | 0.5 | 0.4 | 0.8 | 1.1 | 0.8 |
| Marine Origin | | | | | | | | | | |
| Raw materials..... | 36.9 | 27.2 | 90.6 | 121.5 | 128.1 | 132.7 | 2.9 | 10.2 | 10.7 | 14.3 |
| Partly manufactured..... | 11.3 | 11.6 | 43.8 | 70.5 | 76.1 | 80.4 | 0.9 | 3.2 | 3.3 | 4.2 |
| Chiefly manufactured..... | 25.6 | 15.7 | 46.6 | 50.3 | 51.3 | 51.7 | 2.4 | 7.1 | 7.3 | 10.1 |
| Forest Origin | | | | | | | | | | |
| Raw materials..... | 284.2 | 218.6 | 835.6 | 1,300.0 | 1,521.4 | 1,514.6 | 32.0 | 84.5 | 133.3 | 200.4 |
| Partly manufactured..... | 23.5 | 16.5 | 32.0 | 75.8 | 65.4 | 66.8 | 0.6 | 2.8 | 6.6 | 10.2 |
| Chiefly manufactured..... | 110.0 | 74.5 | 367.2 | 624.2 | 718.3 | 666.9 | 6.1 | 16.5 | 31.0 | 41.7 |
| | 149.8 | 127.5 | 416.4 | 639.9 | 737.8 | 780.8 | 25.3 | 65.3 | 115.8 | 148.6 |
| Mineral Origin | | | | | | | | | | |
| Raw materials..... | 194.8 | 257.3 | 720.2 | 1,204.8 ² | 1,509.4 ² | 1,758.1 ² | 334.9 | 1,406.0 | 2,449.6 | 2,755.4 |
| Partly manufactured..... | 38.0 | 137.9 | 85.8 | 216.7 ² | 373.5 ² | 529.6 ² | 90.5 | 346.8 | 444.0 | 432.5 |
| Chiefly manufactured..... | 68.0 | 137.7 | 311.0 | 385.8 | 772.3 | 857.4 | 18.4 | 40.3 | 69.9 | 73.6 |
| | 90.8 | 81.7 | 326.4 | 392.3 | 358.6 | 371.0 | 336.8 | 1,018.9 | 1,935.7 | 2,249.3 |
| Mixed Origin | | | | | | | | | | |
| Raw materials..... | 25.0 | 27.1 | 172.7 | 198.3 ² | 222.0 ² | 263.2 ² | 92.3 | 265.1 | 600.1 | 768.2 |
| Partly manufactured..... | 1.6 | 0.8 | 0.2 | 0.3 | 2.6 | 1.8 | 0.1 | 1 | 0.1 | 0.8 |
| Chiefly manufactured..... | 23.4 | 26.3 | 172.5 | 198.3 ² | 218.8 ² | 265.5 ² | 4.2 | 6.7 | 11.2 | 10.2 |
| | | | | | | | 88.1 | 253.3 | 588.8 | 757.8 |
| Totals | 1,276.3 | 886.7 | 2,768.9 | 4,053.6 | 4,291.8 | 4,789.7 | 1,083.2 | 2,474.8 | 4,147.8 | 4,712.4 |
| Raw materials..... | 596.4 | 285.4 | 1,577.7 | 2,438.8 ² | 3,194.6 ² | 3,512.8 ² | 190.2 | 639.5 | 866.6 | 897.0 |
| Partly manufactured..... | 189.2 | 231.9 | 693.6 | 1,211.4 | 1,515.2 | 1,549.8 | 64.2 | 168.7 | 240.2 | 311.1 |
| Chiefly manufactured..... | 490.6 | 379.4 | 1,335.3 | 1,573.4 ² | 1,612.0 ² | 1,727.1 ² | 418.5 | 1,666.6 | 3,041.1 | 3,599.7 |

¹ Less than \$500,000.

² Revised to include transfer of uranium ores and concentrates from mixed origin to mineral origin which were: \$3,056,000 in 1954; \$26,533,000 in 1955; and \$45,777,000 in 1956.

PART II.—FOREIGN TRADE STATISTICS*

Section 1.—Explanations *re* Canadian Trade Statistics

Certain problems of procedure arise in recording trade statistics and require explanation. For the correct interpretation of the statistics of foreign trade, it is necessary that the following definitions and explanations of terms used be kept in mind:—

Quantities and Values.—In all tables of imports and exports the quantities and values are based upon the declarations of importers (import entries) and exporters (export entries), as subsequently checked by customs officials.

Imports: Valuation.—"Imports" means imports entered for consumption. "Entered for consumption" does not necessarily imply that the goods have been actually consumed in Canada but that they have passed into the possession of the importer and that duty has been paid on that portion liable for duty.

Under the main provisions of the law, the value of merchandise imported into Canada is the fair market value or price thereof when sold for home consumption in the principal markets of the country from which said merchandise was exported. (*See* Sects. 35 to 45 and 55 of the Customs Act.)

Canadian Exports: Valuation.—"Canadian produce" exported (domestic exports) includes Canadian products or manufactures, also exports of commodities of foreign origin that have been changed in form or enhanced in value by further manufacture in Canada, such as sugar refined in Canada from imported raw sugar, aluminum extracted from imported ore, and articles constructed or manufactured from imported materials. The value of exports of Canadian merchandise is the actual amount received in Canadian dollars exclusive of freight, insurance and other handling charges.

Foreign Exports: Valuation.—"Foreign produce" exported (re-exports) consists of foreign merchandise that has previously been imported (entered for home consumption) and is exported from Canada unchanged in form. The value of such commodities is the actual amount received in Canadian dollars exclusive of freight, insurance and other handling charges.

Countries to which Trade is Credited.—Imports are classified as received from the countries whence they were consigned to Canada. These countries are not necessarily the countries of actual origin of the goods, since goods produced in one country may be imported by a firm in another country and later re-sold to Canada. In such cases the second country would be the country of consignment to which the goods would be credited.

There is one exception to this rule. An attempt is made to classify by country of actual origin imports produced in Central and South America but consigned to Canada from the United States. The effect of this procedure, which has been in force since 1946, is to reduce slightly the imports credited to the United States and to increase those credited to Central and South American countries. (*See* Table 5.)

Exports are always credited to the country to which they are consigned.

Discrepancies in Trade Statistics between Canada and Other Countries.—Canada's statistics of exports are rarely in exact agreement with the import statistics of its customers and parallel differences occur with Canadian imports. Among the chief factors contributing to these discrepancies are:—

- (1) Differences in the system of valuation used by Canada and those of other countries, especially with respect to the treatment of transportation charges.
- (2) Differences in the statistical treatment of special categories of trade, such as armaments and military supplies, government-financed gift or mutual aid shipments, postal and express shipments, or warehouse trade.
- (3) Differing definitions of territorial areas.
- (4) Differing systems of geographical classification of trade, notably the consignment system used by Canada and the actual origin or ultimate destination system in use by some other countries.
- (5) Differences in the time at which trade is recorded in the statistics of partner countries caused by the time required for goods to move from one country to another.

Treatment of Gold in Trade Statistics.—The general use of gold as a money metal gives it peculiar attributes that distinguish it from other commodities in trade. In particular, international movements of gold are determined largely by monetary factors

* Based on statistics taken from reports published by the External Trade Section, International Trade Division, Dominion Bureau of Statistics.

rather than by ordinary trade or commercial considerations. Gold is generally acceptable; it does not have to surmount tariff barriers and is normally assured a market at a fixed minimum price. Also, gold may be bought or sold internationally without any physical movements of the metal, such transactions being recognized by simply setting aside or 'ear-marking' the metal in the vaults of some central bank.

For these reasons movements of gold in a primary or semi-fabricated state are excluded from the statistics of Canada's commodity trade. However, since gold is produced in Canada primarily as an export commodity, a series showing new gold production available for export is published as a supplement to the trade statistics. Because this series is calculated on a production basis, a division of the figures into transactions with individual countries is not possible.

NEW GOLD PRODUCTION AVAILABLE FOR EXPORT BY MONTH 1949-56

(Millions of dollars)

| Month | 1949 | 1950 | 1951 | 1952 | 1953 | 1954 | 1955 | 1956 |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| January..... | 9.7 | 15.8 | 17.3 | 13.3 | 16.0 | 11.5 | 11.5 | 12.5 |
| February..... | 9.6 | 11.7 | 11.7 | 13.0 | 16.1 | 10.2 | 14.7 | 12.7 |
| March..... | 12.1 | 13.5 | 8.4 | 15.0 | 15.6 | 12.8 | 12.2 | 12.4 |
| April..... | 9.8 | 11.4 | 16.2 | 11.2 | 11.7 | 13.8 | 10.9 | 12.5 |
| May..... | 12.4 | 15.8 | 13.0 | 8.5 | 12.0 | 13.7 | 15.0 | 14.0 |
| June..... | 9.8 | 15.0 | 13.8 | 14.6 | 13.7 | 15.6 | 13.3 | 12.9 |
| July..... | 9.4 | 14.8 | 13.4 | 14.9 | 9.3 | 13.6 | 11.9 | 11.1 |
| August..... | 13.8 | 13.8 | 11.0 | 9.6 | 10.7 | 13.3 | 13.1 | 14.5 |
| September..... | 11.2 | 10.8 | 10.8 | 12.8 | 10.4 | 11.9 | 12.2 | 12.2 |
| October..... | 13.2 | 16.4 | 8.2 | 10.1 | 9.9 | 12.3 | 11.7 | 12.3 |
| November..... | 15.4 | 12.3 | 7.7 | 13.6 | 9.1 | 12.3 | 15.0 | 12.3 |
| December..... | 12.5 | 11.3 | 18.3 | 13.5 | 9.8 | 13.7 | 13.4 | 10.4 |
| TOTALS..... | 138.9 | 162.6 | 149.8 | 150.1 | 144.3 | 154.7 | 154.9 | 149.8 |

Section 2.—Total Foreign Trade

In considering the figures in Sections 2 to 6, reference should be made to the explanatory notes on trade in Section 1. It must be emphasized that gold imports and exports are excluded from all tables.

1.—Value of Total Foreign Trade of Canada (excluding Gold) 1942-56

NOTE.—These figures are available on a calendar year basis since 1919; figures for 1919-34 are given in the 1950 Year Book, p. 905, and for 1935-41 in the 1954 edition, p. 969. Figures for the years ended Mar. 31, 1868-1939 are given in the 1940 Year Book, p. 526.

| Year | Imports | | | Exports | | | Balance of Trade: Excess of Exports (+) Imports (-) |
|-----------|---------------|-------------|---------------|------------------|-----------------|---------------|--|
| | Dutiable | Free | Total | Domestic Produce | Foreign Produce | Total | |
| | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| 1942..... | 715,018,745 | 929,223,188 | 1,644,241,933 | 2,363,773,296 | 21,692,750 | 2,385,466,046 | + 741,224,113 |
| 1943..... | 836,548,673 | 898,528,217 | 1,735,076,890 | 2,971,475,277 | 29,877,002 | 3,001,352,279 | +1,266,275,389 |
| 1944..... | 884,751,584 | 874,146,613 | 1,758,898,197 | 3,439,953,165 | 43,145,447 | 3,483,098,612 | +1,724,200,415 |
| 1945..... | 798,795,201 | 786,979,941 | 1,585,775,142 | 3,218,330,353 | 49,093,935 | 3,267,424,288 | +1,681,649,146 |
| 1946..... | 1,078,943,972 | 848,335,430 | 1,927,279,402 | 2,312,215,301 | 26,950,546 | 2,339,165,847 | + 411,886,445 |

91593—63½

1.—Value of Total Foreign Trade of Canada (excluding Gold) 1942-56—concluded

| Year | Imports | | | Exports | | | Balance of Trade: Excess of Exports (+) Imports (-) |
|-----------|---------------|---------------|---------------|------------------|-----------------|---------------|---|
| | Dutiable | Free | Total | Domestic Produce | Foreign Produce | Total | |
| | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| 1947..... | 1,562,690,081 | 1,011,254,044 | 2,573,944,125 | 2,774,902,355 | 36,888,055 | 2,811,790,410 | + 237,846,285 |
| 1948..... | 1,382,202,722 | 1,254,742,630 | 2,636,945,352 | 3,075,438,085 | 34,590,583 | 3,110,028,668 | + 473,083,316 |
| 1949..... | 1,444,123,667 | 1,317,083,574 | 2,761,207,241 | 2,992,960,978 | 29,491,856 | 3,022,452,834 | + 261,245,593 |
| 1950..... | 1,617,948,425 | 1,556,304,713 | 3,174,253,138 | 3,118,386,551 | 38,686,122 | 3,157,072,673 | + 17,180,465 |
| 1951..... | 2,174,304,400 | 1,910,552,078 | 4,084,856,478 | 3,914,460,376 | 48,923,939 | 3,963,384,315 | - 121,472,163 |
| 1952..... | 2,162,882,381 | 1,867,585,272 | 4,030,467,653 | 4,301,080,679 | 54,878,985 | 4,355,959,664 | + 325,492,011 |
| 1953..... | 2,417,960,243 | 1,964,870,187 | 4,382,830,430 | 4,117,405,882 | 55,195,233 | 4,172,601,115 | - 210,229,315 |
| 1954..... | 2,311,344,114 | 1,781,852,224 | 4,093,196,338 | 3,881,271,854 | 65,644,868 | 3,946,916,722 | - 146,279,616 |
| 1955..... | 2,637,434,788 | 2,074,935,247 | 4,712,370,035 | 4,281,784,253 | 69,499,483 | 4,351,283,736 | - 361,086,299 |
| 1956..... | 3,291,954,896 | 2,413,494,007 | 5,705,448,903 | 4,789,745,693 | 73,397,431 | 4,863,143,124 | - 842,305,779 |

Section 3.—Trade by Geographic Areas

The tables in this Section provide information about Canada's total foreign trade by continent and by country.

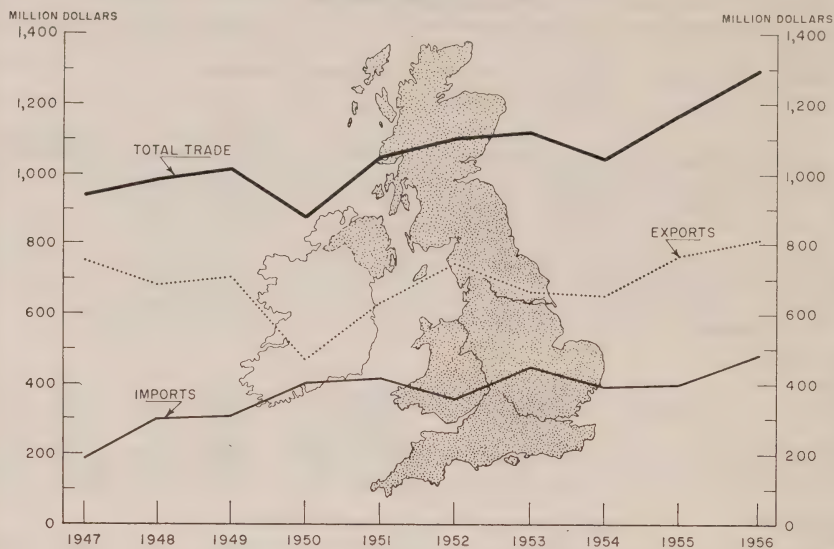
2.—Trade of Canada by Continent 1953-56

| Item and Continent | 1953 | | 1954 | | 1955 | | 1956 | |
|--------------------------------------|------------------|---------------|------------------|---------------|------------------|---------------|------------------|---------------|
| | Value | P.C. of Total | Value | P.C. of Total | Value | P.C. of Total | Value | P.C. of Total |
| | \$'000 | | \$'000 | | \$'000 | | \$'000 | |
| Imports | | | | | | | | |
| Europe— | | | | | | | | |
| United Kingdom..... | 453,391 | 10.3 | 392,472 | 9.6 | 400,531 | 8.5 | 484,679 | 8.5 |
| Other Europe..... | 173,822 | 4.0 | 179,782 | 4.4 | 204,741 | 4.3 | 297,116 | 5.2 |
| North America— | | | | | | | | |
| United States..... | 3,221,214 | 73.5 | 2,961,380 | 72.3 | 3,452,178 | 73.3 | 4,161,667 | 72.9 |
| Other North America..... | 92,943 | 2.1 | 111,400 | 2.7 | 140,316 | 3.0 | 166,767 | 2.9 |
| South America..... | 252,332 | 5.7 | 258,127 | 6.3 | 273,657 | 5.8 | 305,693 | 5.4 |
| Asia..... | 114,079 | 2.6 | 114,868 | 2.8 | 162,419 | 3.4 | 204,498 | 3.6 |
| Oceania..... | 42,226 | 1.0 | 43,079 | 1.1 | 46,933 | 1.0 | 48,414 | 0.9 |
| Africa..... | 32,823 | 0.8 | 32,088 | 0.8 | 31,595 | 0.7 | 35,615 | 0.6 |
| Totals, Imports..... | 4,382,830 | 100.0 | 4,093,196 | 100.0 | 4,712,370 | 100.0 | 5,705,449 | 100.0 |
| Exports (Domestic) | | | | | | | | |
| Europe— | | | | | | | | |
| United Kingdom..... | 665,232 | 16.2 | 653,408 | 16.8 | 769,313 | 18.0 | 812,706 | 17.0 |
| Other Europe..... | 387,285 | 9.4 | 353,452 | 9.1 | 393,105 | 9.2 | 542,342 | 11.3 |
| North America— | | | | | | | | |
| United States..... | 2,418,915 | 58.7 | 2,317,153 | 59.7 | 2,559,343 | 59.8 | 2,818,655 | 58.8 |
| Other North America..... | 111,627 | 2.7 | 114,274 | 2.9 | 124,179 | 2.9 | 141,503 | 3.0 |
| South America..... | 139,393 | 3.4 | 126,709 | 3.3 | 94,320 | 2.2 | 101,107 | 2.1 |
| Asia..... | 258,204 | 6.3 | 185,770 | 4.8 | 178,018 | 4.1 | 216,223 | 4.5 |
| Oceania..... | 53,716 | 1.3 | 65,212 | 1.7 | 86,701 | 2.0 | 71,534 | 1.5 |
| Africa..... | 83,034 | 2.0 | 65,294 | 1.7 | 76,805 | 1.8 | 85,676 | 1.8 |
| Totals, Exports (Domestic)... | 4,117,406 | 100.0 | 3,881,272 | 100.0 | 4,281,784 | 100.0 | 4,789,746 | 100.0 |

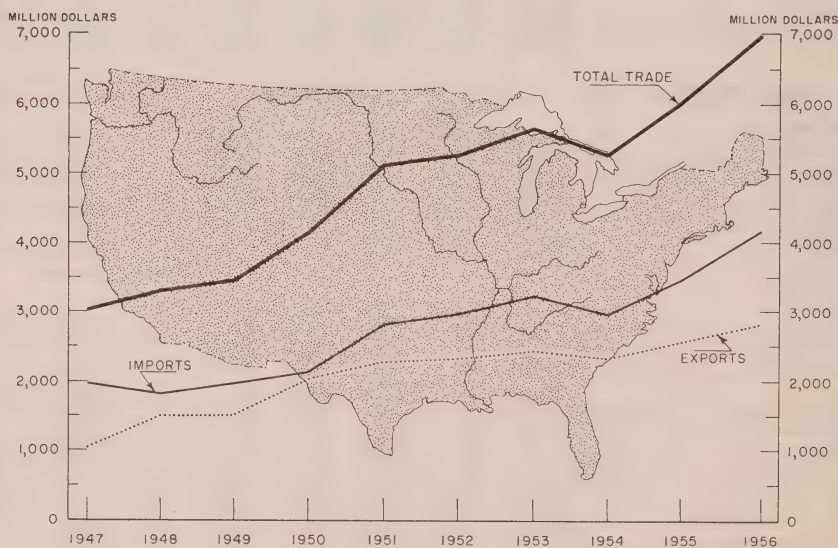
3.—Trade of Canada with Commonwealth and Foreign Countries, Selected Years 1886-1956

| Item and Year | Canadian Trade with— | | | | | | | |
|---------------------------|----------------------|---------------|---------------|---------------|------------------------------|---------------|-------------------------|---------------|
| | United Kingdom | | United States | | Other Commonwealth Countries | | Other Foreign Countries | |
| | Value | P.C. of Total | Value | P.C. of Total | Value | P.C. of Total | Value | P.C. of Total |
| Imports | \$'000 | | \$'000 | | \$'000 | | \$'000 | |
| Ended Mar. 31— | | | | | | | | |
| 1886..... | 39,033 | 40.7 | 42,819 | 44.6 | 2,384 | 2.5 | 11,757 | 12.2 |
| 1891..... | 42,019 | 37.7 | 52,033 | 46.7 | 2,318 | 2.1 | 15,163 | 13.5 |
| 1896..... | 32,825 | 31.2 | 53,529 | 50.8 | 2,389 | 2.2 | 16,619 | 15.8 |
| 1901..... | 42,820 | 24.1 | 107,378 | 60.3 | 3,833 | 2.2 | 23,900 | 13.4 |
| 1906..... | 69,184 | 24.4 | 169,256 | 59.6 | 14,606 | 5.1 | 30,694 | 10.9 |
| 1911..... | 109,935 | 24.3 | 275,824 | 60.8 | 19,533 | 4.4 | 47,433 | 10.5 |
| 1916..... | 77,404 | 15.2 | 370,881 | 73.0 | 27,826 | 5.5 | 32,091 | 6.3 |
| 1921..... | 213,974 | 17.3 | 856,177 | 69.0 | 52,029 | 4.2 | 117,979 | 9.5 |
| Ended Dec. 31— | | | | | | | | |
| 1926..... | 164,707 | 16.3 | 668,747 | 66.3 | 49,907 | 5.0 | 124,980 | 12.4 |
| 1929..... | 194,778 | 15.0 | 893,585 | 68.8 | 62,287 | 4.8 | 148,343 | 11.4 |
| 1937..... | 147,292 | 18.2 | 490,505 | 60.7 | 89,304 | 11.0 | 81,796 | 10.1 |
| 1939..... | 114,007 | 15.2 | 496,898 | 66.1 | 74,893 | 10.0 | 65,257 | 8.7 |
| 1943..... | 134,965 | 7.7 | 1,423,672 | 82.1 | 103,666 | 6.0 | 72,773 | 4.2 |
| 1947..... | 189,370 | 7.4 | 1,974,679 | 76.7 | 165,024 | 6.5 | 244,871 | 9.5 |
| 1948..... | 299,502 | 11.3 | 1,805,763 | 68.5 | 204,612 | 7.8 | 327,069 | 12.4 |
| 1949..... | 307,450 | 11.1 | 1,951,860 | 70.7 | 186,779 | 6.8 | 315,118 | 11.4 |
| 1950..... | 404,213 | 12.7 | 2,130,476 | 67.1 | 241,411 | 7.6 | 398,153 | 12.6 |
| 1951..... | 420,985 | 10.3 | 2,812,927 | 68.9 | 306,104 | 7.5 | 544,840 | 13.3 |
| 1952..... | 359,757 | 8.9 | 2,976,962 | 73.9 | 184,704 | 4.6 | 509,044 | 12.6 |
| 1953..... | 453,391 | 10.3 | 3,221,214 | 73.5 | 170,571 | 3.9 | 537,654 | 12.3 |
| 1954..... | 392,472 | 9.6 | 2,961,380 | 72.4 | 181,760 | 4.4 | 557,584 | 13.6 |
| 1955..... | 400,531 | 8.5 | 3,452,178 | 73.3 | 209,772* | 4.4 | 649,889 | 13.8 |
| 1956..... | 484,679 | 8.5 | 4,161,667 | 72.9 | 221,232 | 3.9 | 837,872 | 14.7 |
| Exports (Domestic) | | | | | | | | |
| Ended Mar. 31— | | | | | | | | |
| 1886..... | 36,694 | 47.2 | 34,284 | 44.1 | 3,263 | 4.2 | 3,515 | 4.5 |
| 1891..... | 43,244 | 48.8 | 37,743 | 42.6 | 3,893 | 4.4 | 3,791 | 4.2 |
| 1896..... | 62,718 | 57.2 | 37,789 | 34.4 | 4,048 | 3.7 | 5,152 | 4.7 |
| 1901..... | 92,858 | 52.3 | 67,984 | 38.3 | 7,891 | 4.5 | 8,700 | 4.9 |
| 1906..... | 127,456 | 54.2 | 83,546 | 35.5 | 10,965 | 4.6 | 13,516 | 5.7 |
| 1911..... | 132,157 | 48.2 | 104,116 | 38.0 | 16,811 | 6.1 | 21,233 | 7.7 |
| 1916..... | 451,852 | 60.9 | 201,106 | 27.1 | 30,677 | 4.2 | 57,974 | 7.8 |
| 1921..... | 312,845 | 26.3 | 542,323 | 45.6 | 90,607 | 7.6 | 243,389 | 20.5 |
| Ended Dec. 31— | | | | | | | | |
| 1926..... | 459,223 | 36.4 | 457,878 | 36.3 | 95,701 | 7.6 | 248,439 | 19.7 |
| 1929..... | 290,295 | 25.2 | 492,686 | 42.8 | 105,006 | 9.1 | 264,430 | 22.9 |
| 1937..... | 402,062 | 40.3 | 360,012 | 36.1 | 104,159 | 10.4 | 131,134 | 13.2 |
| 1939..... | 328,999 | 35.5 | 380,392 | 41.1 | 102,707 | 11.1 | 113,728 | 12.3 |
| 1943..... | 1,032,647 | 34.8 | 1,149,232 | 38.7 | 369,015 | 12.4 | 420,581 | 14.1 |
| 1947..... | 751,198 | 27.1 | 1,034,226 | 37.3 | 417,303 | 15.0 | 572,175 | 20.6 |
| 1948..... | 686,914 | 22.3 | 1,500,987 | 48.8 | 345,477 | 11.3 | 542,060 | 17.6 |
| 1949..... | 704,956 | 23.5 | 1,503,459 | 50.2 | 310,067 | 10.4 | 474,480 | 15.9 |
| 1950..... | 469,910 | 15.1 | 2,020,988 | 64.8 | 185,179 | 5.9 | 442,310 | 14.2 |
| 1951..... | 631,461 | 16.1 | 2,297,675 | 58.7 | 240,946 | 6.2 | 744,379 | 19.0 |
| 1952..... | 745,845 | 17.3 | 2,306,955 | 53.7 | 261,687 | 6.1 | 986,593 | 22.9 |
| 1953..... | 665,232 | 16.2 | 2,418,915 | 58.7 | 232,352 | 5.6 | 800,906 | 19.5 |
| 1954..... | 633,408 | 16.9 | 2,317,153 | 59.7 | 195,053 | 5.0 | 715,658 | 18.4 |
| 1955..... | 709,313 | 18.0 | 2,559,343 | 59.8 | 237,125 | 5.5 | 716,004 | 16.7 |
| 1956..... | 812,706 | 17.0 | 2,818,655 | 58.8 | 243,216 | 5.1 | 915,169 | 19.1 |

CANADIAN TRADE WITH THE UNITED KINGDOM 1947-56



CANADIAN TRADE WITH THE UNITED STATES 1947-56



4.—Trade of Canada by Leading Countries 1954-56

| Rank in— | | | Item and Country | 1954 | 1955 | 1956 |
|--|------|------|--|------------------|------------------|------------------|
| 1954 | 1955 | 1956 | | | | |
| Imports | | | | \$'000 | \$'000 | \$'000 |
| 1 | 1 | 1 | United States..... | 2,961,380 | 3,452,178 | 4,161,667 |
| 2 | 2 | 2 | United Kingdom..... | 392,472 | 400,531 | 484,679 |
| 3 | 3 | 3 | Venezuela..... | 167,594 | 187,277 | 208,401 |
| 4 | 4 | 4 | Germany, Federal Republic..... | 44,485 | 55,603 | 89,348 |
| 15 | 5 | 5 | Japan..... | 19,197 | 36,718 | 60,826 |
| 7 | 9 | 6 | Belgium and Luxembourg..... | 25,077 | 29,051 | 52,728 |
| 21 | 10 | 7 | Mexico..... | 14,033 | 28,814 | 41,699 |
| 12 | 8 | 8 | Netherlands Antilles..... | 20,582 | 30,722 | 38,119 |
| 5 | 7 | 9 | Brazil..... | 31,623 | 30,747 | 34,832 |
| 11 | 13 | 10 | France..... | 22,046 | 25,016 | 32,600 |
| 6 | 6 | 11 | India..... | 28,054 | 35,147 | 30,898 |
| 14 | 11 | 12 | Malaya and Singapore..... | 19,586 | 28,810 | 28,558 |
| 9 | 12 | 13 | Australia..... | 24,657 | 26,295 | 26,310 |
| 20 | 17 | 14 | Italy..... | 15,006 | 18,502 | 24,967 |
| 46 | 29 | 15 | Arabia..... | 2,225 | 6,986 | 24,712 |
| 19 | 21 | 16 | Jamaica..... | 15,309 | 15,567 | 24,633 |
| 10 | 15 | 17 | Netherlands..... | 22,562 | 20,951 | 23,776 |
| 8 | 14 | 18 | Colombia..... | 24,820 | 22,220 | 23,056 |
| 16 | 16 | 19 | Switzerland..... | 19,151 | 19,365 | 22,301 |
| 13 | 18 | 20 | British Guiana..... | 20,482 | 18,307 | 20,498 |
| 17 | 19 | 21 | Lebanon..... | 17,413 | 17,920 | 19,601 |
| 25 | 24 | 22 | Sweden..... | 9,175 | 12,152 | 17,303 |
| 22 | 20 | 23 | Ceylon..... | 12,527 | 15,581 | 16,564 |
| 28 | 23 | 24 | New Zealand..... | 7,314 | 12,316 | 12,321 |
| 23 | 25 | 25 | Cuba..... | 9,913 | 10,025 | 12,279 |
| 24 | 26 | 26 | Trinidad and Tobago..... | 9,595 | 9,840 | 11,051 |
| 29 | 30 | 27 | Union of South Africa..... | 5,911 | 6,255 | 8,401 |
| 1 | 1 | 28 | Mauritius and Seychelles..... | 1 | 1 | 7,758 |
| 30 | 27 | 29 | Panama..... | 5,850 | 9,037 | 7,585 |
| 18 | 22 | 30 | British East Africa..... | 15,852 | 13,158 | 7,290 |
| Totals, 30 Leading Countries..... | | | | 3,983,891 | 4,595,091 | 5,574,761 |
| Grand Totals, Imports..... | | | | 4,093,196 | 4,712,370 | 5,705,449 |
| Exports (Domestic) | | | | | | |
| 1 | 1 | 1 | United States..... | 2,317,153 | 2,559,343 | 2,818,655 |
| 2 | 2 | 2 | United Kingdom..... | 653,408 | 769,313 | 812,706 |
| 4 | 4 | 3 | Germany, Federal Republic..... | 86,899 | 90,751 | 134,098 |
| 3 | 3 | 4 | Japan..... | 96,474 | 90,893 | 127,870 |
| 9 | 6 | 5 | Union of South Africa..... | 39,883 | 56,026 | 64,616 |
| 5 | 7 | 6 | Belgium and Luxembourg..... | 54,987 | 53,384 | 57,852 |
| 8 | 9 | 7 | Norway..... | 43,813 | 47,031 | 57,682 |
| 10 | 8 | 8 | Netherlands..... | 39,777 | 47,689 | 54,559 |
| 11 | 10 | 9 | France..... | 33,799 | 42,563 | 53,156 |
| 6 | 5 | 10 | Australia..... | 45,768 | 58,482 | 47,747 |
| 13 | 11 | 11 | Mexico..... | 27,359 | 37,126 | 39,385 |
| 15 | 13 | 12 | Italy..... | 23,844 | 27,653 | 37,744 |
| 12 | 12 | 13 | Venezuela..... | 30,973 | 30,756 | 34,335 |
| 14 | 14 | 14 | Switzerland..... | 26,826 | 25,640 | 33,535 |
| 17 | 15 | 15 | India..... | 17,689 | 24,669 | 25,714 |
| 33 | 2 | 16 | Union of Soviet Socialist Republics..... | 4,854 | 2,680 | 24,606 |
| 2 | 2 | 17 | Czechoslovakia..... | 295 | 1,062 | 24,558 |
| 19 | 18 | 18 | Philippines..... | 15,863 | 18,136 | 18,060 |
| 20 | 17 | 19 | New Zealand..... | 14,807 | 22,344 | 17,995 |
| 2 | 40 | 20 | Poland..... | 558 | 4,005 | 17,918 |
| 16 | 16 | 21 | Colombia..... | 21,000 | 22,691 | 17,589 |
| 21 | 20 | 22 | Jamaica..... | 11,552 | 12,907 | 17,222 |
| 18 | 19 | 23 | Cuba..... | 17,455 | 13,910 | 15,371 |
| 7 | 23 | 24 | Brazil..... | 45,096 | 11,520 | 13,026 |
| 22 | 22 | 25 | Trinidad and Tobago..... | 11,425 | 12,625 | 12,491 |
| 32 | 31 | 26 | Peru..... | 5,086 | 6,001 | 11,337 |
| 24 | 29 | 27 | Pakistan..... | 8,970 | 6,202 | 10,502 |
| 27 | 24 | 28 | Puerto Rico..... | 7,757 | 9,715 | 10,421 |
| 25 | 21 | 29 | Ireland..... | 8,821 | 12,808 | 10,144 |
| 42 | 25 | 30 | Sweden..... | 3,518 | 7,622 | 7,894 |
| Totals, 30 Leading Countries..... | | | | 3,715,709 | 4,125,547 | 4,628,788 |
| Grand Totals, Exports (Domestic)..... | | | | 3,881,272 | 4,281,784 | 4,789,746 |

¹ Included with British East Africa prior to 1956.² Lower than 50th.

5.—Value of Imports by Country 1950-56 with Averages 1935-39

| Country | Averages 1935-39 | 1950 | 1951 | 1952 | 1953 | 1954 | 1955 | 1956 |
|-------------------------------------|---------------------|---------------------|---------------------|------------------|---------------------------|----------------------------|----------------------------|------------------|
| | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| North America | 421,356 | 2,131,470 | 2,814,436 | 2,979,344 | 3,224,247 | 2,968,996 | 3,456,175 | 4,165,506 |
| Alaska..... | 93 | 976 | 1,483 | 2,333 | 2,961 | 7,573 | 3,932 | 3,792 |
| Greenland..... | 311 | — | — | 1 | 6 | 13 | 13 | 10 |
| St. Pierre and Miquelon..... | 26 | 18 | 25 | 48 | 66 | 30 | 52 | 38 |
| United States..... | 418,738 | 2,130,476 | 2,812,927 | 2,976,962 | 3,221,214 | 2,961,380 | 3,452,178 | 4,161,667 |
| Central America and Antilles | 14,570 | 125,582 | 113,818 | 112,431 | 89,910¹ | 103,784¹ | 136,319¹ | 162,928 |
| Bahamas..... | 1 | 532 | 346 | 406 | 427 | 418 | 272 | 221 |
| Barbados..... | 3,261 | 10,057 | 13,409 | 8,666 | 2,375 | 5,358 | 8,236 | 4,634 |
| Bermuda..... | 102 | 87 | 82 | 317 | 126 | 390 | 258 | 273 |
| British Honduras..... | 87 | 445 | 458 | 26 | 139 | 124 | 164 | 171 |
| Jamaica..... | 5,160 | 19,080 | 18,041 | 9,204 | 11,761 | 15,309 | 15,567 ² | 24,633 |
| Leeward and Windward Islands..... | 1,816 | 395 | 956 | 216 | 1,210 | 1,250 | 2,456 | 2,193 |
| Trinidad and Tobago..... | 2,387 | 15,205 | 15,082 | 9,660 | 8,062 | 9,595 | 9,840 | 11,051 |
| American Virgin Islands..... | 2 | 12 | 166 | — | — | 2 | 2 | — |
| Costa Rica..... | 77 | 3,378 | 8,785 | 8,740 | 9,472 | 7,746 | 5,948 | 3,893 |
| Cuba..... | 615 | 4,134 | 8,333 | 18,615 | 11,654 | 9,913 | 10,025 | 12,279 |
| Dominican Republic..... | 4 | 1,180 | 1,126 | 6,000 | 5,854 | 1,663 | 1,529 | 1,346 |
| El Salvador..... | 19 | 848 | 1,183 | 771 | 1,389 | 951 | 2,962 | 1,133 |
| French West Indies..... | 1 | 2 | 2 | 2 | — | 1 | 158 | 2 |
| Guatemala..... | 67 | 5,781 | 4,618 | 2,080 | 3,259 | 5,060 | 4,545 | 3,227 |
| Haiti..... | 63 | 1,769 | 3,020 | 1,928 | 748 | 1,570 | 1,597 | 1,683 |
| Honduras..... | 49 | 5,621 | 4,027 | 4,643 | 4,594 | 2,589 | 1,666 | 7,079 |
| Mexico..... | 667 | 32,974 | 18,013 | 23,937 | 15,785 | 14,033 | 28,814 | 41,699 |
| Netherlands Antilles..... | 150 | 17,336 | 10,809 | 11,747 | 8,154 | 20,582 | 30,722 | 38,119 |
| Nicaragua..... | 2 | 339 | 596 | 501 | 391 | 181 | 1,429 | 655 |
| Panama..... | 32 | 5,478 | 3,492 | 4,125 | 3,637 | 5,850 | 9,037 | 7,585 |
| Puerto Rico..... | 13 | 931 | 1,276 | 846 | 872 | 1,203 | 1,094 | 1,054 |
| South America | 22,930 | 174,010 | 246,666 | 237,073 | 252,332 | 258,127 | 273,657 | 305,693 |
| British Guiana..... | 5,846 | 21,735 | 25,025 | 23,660 | 17,800 | 20,482 | 18,307 | 20,498 |
| Falkland Islands..... | 2 | — | — | — | — | 1 | — | — |
| Argentina..... | 5,374 | 10,913 | 13,955 | 4,374 | 8,529 | 2,738 | 4,414 | 4,626 |
| Bolivia..... | 26 | 2,442 | 1,848 | 3,351 | 1,415 | 267 | 19 | 88 |
| Brazil..... | 920 | 28,178 | 40,627 | 35,103 | 35,047 | 31,623 | 30,747 | 34,832 |
| Chile..... | 125 | 1,353 | 2,153 | 3,282 | 1,052 | 236 | 250 | 1,704 |
| Colombia..... | 5,139 | 13,342 | 13,063 | 18,004 | 23,215 | 24,820 | 22,220 | 23,056 |
| Ecuador..... | 41 | 1,473 | 2,438 | 2,751 | 2,688 | 3,763 | 5,187 | 4,498 |
| French Guiana..... | 1 | — | — | — | 3 | — | 2 | — |
| Paraguay..... | 62 | 350 | 343 | 346 | 260 | 520 | 237 | 142 |
| Peru..... | 3,554 | 3,961 | 5,588 | 8,050 | 2,928 | 2,264 | 869 | 2,766 |
| Surinam..... | 2 | 228 | 1,141 | 528 | 1,345 | 2,793 | 3,646 | 3,925 |
| Uruguay..... | 180 | 2,770 | 3,768 | 1,863 | 2,903 | 1,025 | 483 | 1,157 |
| Venezuela..... | 1,662 | 87,264 | 136,718 | 135,758 | 155,147 | 167,594 | 187,277 | 208,401 |
| Northwestern Europe | 157,485 | 485,362 | 567,916 | 485,675 | 600,417 | 544,666 | 572,358 | 737,036 |
| United Kingdom..... | 124,047 | 404,213 | 420,985 | 359,757 | 453,391 | 392,472 | 400,531 | 484,679 |
| Austria..... | 245 | 964 | 3,191 | 2,917 | 2,967 | 3,043 | 2,709 | 3,913 |
| Belgium and Luxembourg..... | 6,330 | 22,795 | 39,095 | 33,216 | 29,082 | 25,077 | 29,051 | 52,728 |
| Denmark..... | 165 | 1,406 | 3,730 | 2,167 | 2,175 | 3,463 | 4,269 | 6,182 |
| France..... | 6,382 | 14,669 | 23,974 | 19,117 | 22,267 | 22,046 | 25,016 | 32,600 |
| Germany, Federal Republic..... | 10,364 ³ | 11,026 ³ | 30,936 ³ | 22,629 | 35,507 | 44,485 | 55,603 | 89,348 |
| Iceland..... | 3 | 233 | 26 | 50 | 80 | 59 | 8 | 9 |
| Ireland..... | 69 | 148 | 785 | 462 | 582 | 1,150 | 336 | 415 |
| Netherlands..... | 3,984 | 8,896 | 14,010 | 16,495 | 22,298 | 22,562 | 20,951 | 23,776 |
| Norway..... | 742 | 1,405 | 2,977 | 3,857 | 2,289 | 1,983 | 2,366 | 3,780 |
| Sweden..... | 2,044 | 5,145 | 11,808 | 8,611 | 9,341 | 9,175 | 12,152 | 17,303 |
| Switzerland..... | 3,110 | 14,464 | 16,398 | 16,396 | 20,437 | 19,151 | 19,365 | 22,301 |
| Southern Europe | 3,863 | 15,240 | 23,943 | 18,326 | 21,320 | 22,861 | 27,204 | 33,459 |
| Gibraltar..... | — | 2 | — | — | — | 1 | 2 | 1 |
| Malta..... | 2 | 20 | 47 | 51 | 67 | 67 | 62 | 53 |
| Azores and Madeira..... | 157 | 387 | 410 | 285 | 179 | 193 | 200 | 164 |
| Greece..... | 47 | 203 | 174 | 197 | 224 | 231 | 280 | 274 |
| Italy..... | 2,403 | 9,373 | 14,217 | 11,735 | 14,271 | 15,006 | 18,502 | 24,967 |
| Portugal..... | 265 | 1,698 | 1,980 | 1,798 | 1,962 | 1,798 | 1,941 | 2,272 |
| Spain..... | 989 | 3,658 | 7,114 | 4,260 | 4,619 | 5,566 | 6,220 | 5,727 |

¹ Included with Leeward and Windward Islands.² Less than \$500.³ Includes all Germany.

5.—Value of Imports by Country 1950-56 with Averages 1935-39—continued

| Country | Averages 1935-39 | 1950 | 1951 | 1952 | 1953 | 1954 | 1955 | 1956 |
|--------------------------------------|---------------------|----------------|----------------|---------------|---------------|---------------|----------------|----------------|
| | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Eastern Europe | 2,943 | 6,903 | 7,070 | 7,553 | 5,476 | 4,727 | 5,709 | 11,300 |
| Bulgaria | 4 | 4 | 4 | 2 | — | 1 | 3 | 4 |
| Czechoslovakia | 1,979 | 6,036 | 4,668 | 3,559 | 2,589 | 1,796 | 2,880 | 5,675 |
| Estonia | 23 | 30 | 116 | 31 | 9 | 5 | 2 | 1 |
| Finland | 70 | 217 | 158 | 234 | 548 | 609 | 384 | 527 |
| Germany, Eastern | 2 | 2 | 2 | 492 | 959 | 721 | 572 | 779 |
| Hungary | 130 | 36 | 121 | 279 | 184 | 210 | 124 | 209 |
| Latvia | 11 | 3 | 33 | 36 | 7 | 5 | 5 | 2 |
| Lithuania | 4 | — | 12 | 16 | 3 | 2 | — | 1 |
| Poland | 185 | 357 | 1,430 | 556 | 244 | 405 | 595 | 2,185 |
| Romania | 96 | 19 | 22 | 13 | 7 | 3 | 1 | 3 |
| Union of Soviet Socialist Republics | 341 | 80 | 358 | 2,234 | 824 | 687 | 628 | 1,007 |
| Yugoslavia | 99 | 122 | 149 | 101 | 101 | 284 | 516 | 907 |
| Middle East | 1,612 | 32,098 | 45,204 | 29,338 | 30,650 | 23,697 | 31,770 | 50,342 |
| Aden | 4 | 12 | 22 | 7 | 10 | 79 | 48 | 73 |
| Arabia | 2 | 28,115 | 22,659 | 7,559 | 2,196 | 2,225 | 6,986 | 24,712 |
| Egypt | 728 | 659 | 711 | 462 | 4,203 | 440 | 294 | 166 |
| Ethiopia | 5 | 31 | 31 | 21 | 44 | 97 | 90 | 125 |
| Iran | 126 | 192 | 521 | 1,168 | 1,025 | 1,385 | 2,064 | 1,057 |
| Iraq | 357 | 1,201 | 2,132 | 924 | 1,371 | 238 | 1,299 | 941 |
| Israel | 68 | 490 | 929 | 1,161 | 1,312 | 1,040 | 1,166 | 1,511 |
| Italian Africa | 1 | 2 | 3 | — | — | — | — | — |
| Jordan | — | — | — | — | — | — | 2 | 1 |
| Libya | — | — | — | — | — | 1 | 3 | — |
| Lebanon | 6 | 62 | 16,381 | 15,171 | 19,584 | 17,413 | 17,920 | 19,601 |
| Syria | 25 | 53 | 58 | 72 | 56 | 23 | 1,059 | 1,351 |
| Sudan | 293 | 53 | 76 | 60 | 57 | 97 | 97 | 97 |
| Turkey | 293 | 1,280 | 1,757 | 2,719 | 791 | 699 | 743 | 706 |
| Other Asia | 34,355 | 113,537 | 150,954 | 92,019 | 87,734 | 91,766 | 131,133 | 154,544 |
| Ceylon | 4,015 | 17,604 | 16,396 | 12,492 | 14,461 | 12,527 | 15,581 | 16,564 |
| India | 8,315 | 37,262 | 40,217 | 26,822 | 26,627 | 23,054 | 35,147 | 30,898 |
| Pakistan | 842 | 1,706 | 2,233 | 191 | 558 | 566 | 816 | 1,306 |
| Hong Kong | 11,154 | 2,203 | 3,001 | 3,711 | 4,427 | 4,154 | 5,875 | 5,699 |
| Malaya and Singapore | 79 | 28,852 | 57,980 | 25,473 | 21,896 | 19,586 | 28,810 | 28,558 |
| Other British East Indies | — | 47 | 4,623 | 1,772 | 350 | 172 | 71 | 122 |
| Afghanistan | 1 | 109 | 51 | 19 | 42 | 9 | 6 | — |
| Burma | 381 | — | 4 | 4 | 2 | 79 | 7 | 1 |
| China | 3,344 | 5,299 | 1,929 | 1,286 | 1,119 | 1,621 | 3,125 | 5,721 |
| Taiwan | 126 | — | 1 | — | 75 | 187 | 155 | 112 |
| Indo-China | 800 | 728 | 1,052 | 893 | 598 | 611 | 1,001 | 1,143 |
| Indonesia | 4,649 | 12,087 | 12,577 | 13,162 | 13,629 | 19,197 | 36,718 | 60,826 |
| Japan | 1 | 35 | 1 | 8 | 54 | 170 | 480 | 8 |
| Korea | 563 | 6,425 | 8,954 | 5,423 | 2,986 | 4,001 | 2,027 | 2,467 |
| Philippines | 1 | — | — | — | 14 | 1 | — | — |
| Portuguese Asia | 84 | 1,181 | 1,938 | 764 | 896 | 786 | 1,142 | 1,103 |
| Thailand | — | — | — | — | — | — | — | — |
| Other Africa | 8,455 | 34,113 | 30,748 | 25,595 | 28,518 | 31,495 | 31,112 | 35,227 |
| British East Africa | 2,683 | 15,067 | 10,864 | 9,593 | 9,893 | 15,852 | 13,158 | 7,289 |
| Mauritius and Seychelles | — | — | — | — | — | — | — | 7,758 |
| Federation of Rhodesia and Nyasaland | 316 ⁴ | 452 | 1,505 | 1,474 | 3,864 | 1,161 | 482 | 720 |
| Union of South Africa | 4,210 | 4,964 | 5,372 | 4,165 | 4,616 | 5,911 | 6,255 | 8,401 |
| Other British South Africa | 701 | 8,999 | 7,112 | 5,523 | 3,159 | 1,986 | 3,775 | 4,063 |
| Gold Coast | 370 | 1,486 | 898 | 1,764 | 1,584 | 866 | 858 | 986 |
| Nigeria | 7 | 294 | 49 | 6 | 2 | 7 | 8 | 18 |
| Sierra Leone | 1 | — | — | — | — | — | — | — |
| Other British West Africa | 1 | 1 | — | — | 1 | 1 | — | — |
| Belgian Congo | 5 | 1,481 | 3,052 | 990 | 2,247 | 1,489 | 2,673 | 2,744 |
| Canary Islands | 10 | 6 | 16 | 22 | 30 | 26 | 25 | 24 |
| French Africa | 61 | 543 | 398 | 40 | 2,631 | 3,184 | 3,267 | 2,075 |
| Liberia | 14 | — | 183 | 29 | 372 | 135 | 214 | 441 |
| Madagascar | 31 | 8 | 29 | 1 | 8 | 304 | 14 | 38 |
| Morocco | 32 | 704 | 1,071 | 1,049 | 529 | 197 | 195 | 196 |
| Portuguese East Africa | 15 | 109 | 198 | 576 | 73 | 191 | 128 | 370 |
| Portuguese West Africa | — | — | — | — | — | 181 | 44 | 94 |
| Spanish Africa | — | — | — | — | 2 | — | 16 | 1 |

¹ Less than \$500.² Included with Germany, Federal Republic.³ Not listed separately.⁴ Southern Rhodesia only.

5.—Value of Imports by Country 1950-56 with Averages 1935-39—concluded

| Country | Averages 1935-39 | 1950 | 1951 | 1952 | 1953 | 1954 | 1955 | 1956 |
|---|---------------------|------------------|------------------|------------------|------------------|------------------|------------------------------|------------------|
| | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Oceania | 17,015 | 55,938 | 84,102 | 43,114 | 42,226 | 43,079 | 46,933 | 49,414 |
| Australia..... | 9,728 | 32,803 | 46,228 | 18,712 | 23,464 | 24,657 | 26,295 | 26,310 |
| Fiji..... | 2,341 | 10,194 | 5,993 | 6,487 | 5,554 | 5,813 | 5,016 | 6,267 |
| New Zealand..... | 4,754 | 11,855 | 30,107 | 14,231 | 8,572 | 7,314 | 12,316 | 12,321 |
| Other British Oceania..... | 3 | — | — | — | — | — | — | 142 |
| French Oceania..... | 3 | 476 | 360 | 1 | — | — | — | 1 |
| Hawaii..... | 186 | 495 | 1,414 | 3,473 | 4,635 | 5,292 | 3,305 | 4,374 |
| United States Oceania..... | 1 | 115 | — | 210 | — | — | — | 1 |
| Totals, Imports | 684,582 | 3,174,253 | 4,084,856 | 4,030,468 | 4,382,830 | 4,093,196 | 4,712,370¹ | 5,705,449 |
| Totals, Commonwealth Countries | 194,442 | 645,624 | 727,089 | 544,462 | 623,962 | 574,231 | 610,302¹ | 705,911 |
| Totals, United States and Dependencies | 419,030 | 2,133,005 | 2,817,265 | 2,983,824 | 3,229,682 | 2,975,447 | 3,460,510 | 4,170,886 |

¹ Less than \$500.

6.—Value of Domestic Exports by Country 1950-56 with Averages 1935-39

| Country | Averages 1935-39 | 1950 | 1951 | 1952 | 1953 | 1954 | 1955 | 1956 |
|---|---------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| North America | 329,805 | 2,023,142 | 2,301,330 | 2,309,787 | 2,421,558 | 2,319,950 | 2,562,031 | 2,823,358 |
| Alaska..... | 154 | 959 | 2,264 | 1,249 | 1,130 | 1,272 | 1,221 | 3,128 |
| Greenland..... | — | 134 | 206 | 303 | 194 | 299 | 86 | 176 |
| St. Pierre and Miquelon..... | 309 | 1,061 | 1,186 | 1,279 | 1,319 | 1,226 | 1,382 | 1,399 |
| United States..... | 321,294 | 2,020,988 | 2,297,675 | 2,306,955 | 2,418,915 | 2,317,153 | 2,559,343 | 2,818,655 |
| Central America and Antilles | 17,699 | 96,544 | 119,680 | 137,688 | 108,984 | 111,477 | 121,491 | 136,800 |
| Bahamas..... | 1 | 1,937 | 2,136 | 2,353 | 2,298 | 2,271 | 2,133 | 2,303 |
| Barbados..... | 1,218 | 2,974 | 4,584 | 3,912 | 3,734 | 4,378 | 4,267 | 4,721 |
| Bermuda..... | 1,381 | 2,991 | 3,693 | 3,158 | 3,070 | 2,992 | 3,010 | 2,900 |
| British Honduras..... | 255 | 491 | 572 | 381 | 376 | 299 | 304 | 248 |
| Jamaica..... | 3,887 | 7,495 | 10,213 | 10,591 | 12,490 | 11,552 | 12,907 | 17,222 |
| Leeward and Windward Islands..... | 1,600 | 3,213 | 4,229 | 4,276 | 3,864 | 3,931 | 4,149 | 4,281 |
| Trinidad and Tobago..... | 3,372 | 7,476 | 9,950 | 11,034 | 9,490 | 11,425 | 12,625 | 12,491 |
| American Virgin Islands..... | 42 | 156 | 181 | 167 | 178 | 119 | 190 | 130 |
| Costa Rica..... | 103 | 2,312 | 2,175 | 2,612 | 2,199 | 2,834 | 3,576 | 2,743 |
| Cuba..... | 1,418 | 18,005 | 20,424 | 24,181 | 16,124 | 17,455 | 13,910 | 15,371 |
| Dominican Republic..... | 171 | 2,954 | 4,060 | 4,643 | 3,993 | 4,269 | 4,168 | 4,985 |
| El Salvador..... | 69 | 1,467 | 2,002 | 2,230 | 1,901 | 1,526 | 1,808 | 2,295 |
| French West Indies..... | 157 | 39 | 40 | 47 | 26 | 24 | 23 | 17 |
| Guatemala..... | 117 | 2,401 | 2,365 | 1,896 | 2,234 | 2,021 | 2,508 | 3,003 |
| Haiti..... | 131 | 2,513 | 2,588 | 3,417 | 2,670 | 3,307 | 2,446 | 2,917 |
| Honduras..... | 159 | 613 | 3,575 | 1,736 | 556 | 471 | 588 | 868 |
| Mexico..... | 2,630 | 17,624 | 29,880 | 39,641 | 28,986 | 27,359 | 37,126 | 39,385 |
| Netherlands Antilles..... | 176 | 4,464 | 1,834 | 1,541 | 1,308 | 1,775 | 1,444 | 1,349 |
| Nicaragua..... | 72 | 756 | 1,097 | 1,185 | 1,354 | 1,653 | 1,769 | 1,402 |
| Panama..... | 316 | 9,019 | 5,961 | 11,359 | 4,380 | 4,057 | 2,824 | 7,748 |
| Puerto Rico..... | 425 | 7,643 | 8,120 | 7,328 | 7,753 | 7,757 | 9,715 | 10,421 |
| South America | 15,016 | 90,684 | 140,145 | 186,984 | 139,393 | 126,709 | 94,320 | 101,107 |
| British Guiana..... | 1,344 | 4,052 | 5,308 | 6,356 | 4,777 | 4,080 | 2,967 | 4,351 |
| Falkland Islands..... | 2 | 1 | 2 | 31 | 41 | 4 | 274 | 11 |
| Argentina..... | 4,696 | 13,360 | 8,883 | 8,227 | 7,641 | 6,692 | 6,833 | 6,183 |
| Bolivia..... | 113 | 2,267 | 3,484 | 6,398 | 5,501 | 1,272 | 1,086 | 1,489 |
| Brazil..... | 4,012 | 15,806 | 53,684 | 81,367 | 37,561 | 45,096 | 11,520 | 13,026 |
| Chile..... | 848 | 6,864 | 13,751 | 10,090 | 3,945 | 3,130 | 3,820 | 4,420 |
| Colombia..... | 1,296 | 14,806 | 12,311 | 13,756 | 20,146 | 21,000 | 22,691 | 17,589 |
| Ecuador..... | 93 | 1,432 | 2,713 | 2,030 | 4,220 | 5,509 | 4,953 | 4,344 |
| French Guiana..... | 36 | 5 | 4 | 3 | 6 | 4 | 2 | 1 |
| Paraguay..... | 8 | 110 | 167 | 112 | 339 | 167 | 91 | 238 |
| Peru..... | 1,072 | 3,744 | 5,054 | 16,405 | 15,108 | 5,086 | 6,001 | 11,337 |
| Surinam..... | 49 | 863 | 934 | 1,097 | 712 | 911 | 971 | 1,025 |
| Uruguay..... | 310 | 1,918 | 6,868 | 5,429 | 2,912 | 2,784 | 2,355 | 2,758 |
| Venezuela..... | 1,139 | 25,457 | 26,982 | 35,683 | 36,485 | 30,973 | 30,756 | 34,335 |

¹ Included with Leeward and Windward Islands.² Less than \$500.

6.—Value of Domestic Exports by Country 1950-56 with Averages 1935-39—continued

| Country | Averages 1935-39 | 1950 | 1951 | 1952 | 1953 | 1954 | 1955 | 1956 |
|---|---------------------|--------------------|---------------------|------------------|----------------|----------------|------------------|------------------|
| | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Northwestern Europe..... | 412,354 | 639,223 | 934,716 | 1,151,964 | 991,813 | 958,303 | 1,106,502 | 1,230,650 |
| United Kingdom..... | 353,741 | 469,910 | 631,461 | 745,845 | 665,232 | 653,408 | 769,313 | 812,706 |
| Austria..... | 27 | 2,369 | 2,166 | 5,216 | 5,136 | 2,857 | 6,025 | 5,214 |
| Belgium and Luxembourg..... | 13,204 | 66,351 | 94,457 | 104,376 | 69,510 | 54,987 | 53,384 | 57,852 |
| Denmark..... | 1,438 | 923 | 5,587 | 9,881 | 6,303 | 2,929 | 3,172 | 3,516 |
| France..... | 8,566 | 18,403 | 46,538 | 48,264 | 32,281 | 33,799 | 42,563 | 53,156 |
| Germany, Federal Republic..... | 9,639 ¹ | 8,873 ¹ | 37,028 ¹ | 94,863 | 83,858 | 86,899 | 90,751 | 134,098 |
| Iceland..... | 28 | 847 | 700 | 833 | 2,058 | 669 | 505 | 292 |
| Ireland..... | 3,861 | 13,321 | 20,921 | 23,058 | 13,356 | 8,821 | 12,808 | 10,144 |
| Netherlands..... | 10,062 | 8,617 | 26,191 | 41,508 | 42,382 | 39,777 | 47,689 | 54,559 |
| Norway..... | 7,247 | 18,924 | 32,198 | 39,002 | 37,278 | 43,813 | 47,031 | 57,682 |
| Sweden..... | 3,593 | 4,250 | 12,125 | 12,198 | 4,587 | 3,518 | 7,622 | 7,894 |
| Switzerland..... | 948 | 26,435 | 25,345 | 26,918 | 29,833 | 26,826 | 25,640 | 33,535 |
| Southern Europe..... | 4,986 | 33,811 | 59,930 | 68,352 | 56,925 | 35,136 | 43,245 | 51,552 |
| Gibraltar..... | 9 | 329 | 648 | 353 | 486 | 252 | 286 | 240 |
| Malta..... | 377 | 4,680 | 2,150 | 3,111 | 3,307 | 3,043 | 3,934 | 4,064 |
| Greece..... | 1,142 | 1,833 | 2,703 | 4,415 | 1,560 | 2,505 | 4,298 | 2,523 |
| Italy..... | 2,785 | 15,476 | 48,763 | 52,645 | 33,170 | 23,844 | 27,653 | 37,744 |
| Portugal..... | 170 | 5,641 | 4,665 | 4,026 | 3,991 | 2,118 | 2,554 | 1,696 |
| Azores and Madeira..... | 8 | 210 | 259 | 224 | 231 | 641 | 311 | 231 |
| Spain..... | 495 | 5,642 | 742 | 3,579 | 14,179 | 2,734 | 4,210 | 5,053 |
| Eastern Europe..... | 3,091 | 5,635 | 6,510 | 25,873 | 3,779 | 13,420 | 12,671 | 72,846 |
| Albania..... | 3 | 2 | 1 | 1 | — | 2 | — | — |
| Bulgaria..... | 10 | 215 | 8 | 2 | 3 | 8 | 2 | 105 |
| Czechoslovakia..... | 881 | 2,179 | 492 | 367 | 123 | 295 | 1,062 | 24,558 |
| Estonia..... | 5 | — | — | — | — | — | — | — |
| Finland..... | 539 | 600 | 3,129 | 2,694 | 1,388 | 476 | 1,736 | 1,952 |
| Eastern Germany..... | 3 | a | a | — | — | — | 2,261 | 1,458 |
| Hungary..... | 4 | 86 | 30 | 81 | 48 | 35 | 165 | 1,913 |
| Latvia..... | 242 | — | — | — | — | — | 2 | — |
| Lithuania..... | 196 | 1 | — | — | — | — | — | — |
| Poland..... | 805 | 1,432 | 94 | 69 | 183 | 558 | 4,005 | 17,918 |
| Romania..... | 52 | 122 | 11 | 45 | 94 | 74 | 397 | 124 |
| Union of Soviet Socialist Republics..... | 336 | 182 | 7 | — | — | 4,854 | 2,680 | 24,606 |
| Yugoslavia..... | 18 | 818 | 2,739 | 22,613 | 1,940 | 7,119 | 363 | 213 |
| Middle East..... | 1,511 | 23,749 | 31,117 | 50,326 | 33,218 | 24,500 | 12,108 | 11,987 |
| Aden..... | 109 | 31 | 25 | 127 | 34 | 22 | 16 | 9 |
| Arabia..... | 4 | 875 | 1,414 | 2,149 | 2,644 | 1,594 | 1,244 | 1,942 |
| Egypt..... | 399 | 3,716 | 2,466 | 19,363 | 11,688 | 1,201 | 1,291 | 2,539 |
| Ethiopia..... | 9 | 54 | 198 | 54 | 55 | 118 | 73 | 121 |
| Iran..... | 118 | 993 | 1,000 | 585 | 753 | 757 | 644 | 790 |
| Iraq..... | 55 | 70 | 1,062 | 313 | 458 | 425 | 1,170 | 657 |
| Israel..... | 251 | 12,126 | 11,816 | 11,940 | 9,059 | 10,174 | 4,558 | 2,725 |
| Italian Africa..... | 2 | 184 | 3 | 6 | — | 1 | 2 | 6 |
| Jordan..... | 4 | 46 | 1,071 | 105 | 38 | 123 | 49 | 97 |
| Libya..... | 2 | 374 | 2,029 | 854 | 1,279 | 840 | 74 | 101 |
| Lebanon..... | 80 | 1,462 | 7,036 | 9,355 | 5,161 | 982 | 1,293 | 1,320 |
| Syria..... | 80 | 1,462 | 7,036 | 9,355 | 5,161 | 982 | 1,293 | 1,320 |
| Sudan..... | 109 | 75 | 34 | 104 | 17 | 8 | 4 | 74 |
| Turkey..... | 388 | 3,744 | 2,962 | 4,791 | 1,455 | 7,086 | 647 | 887 |
| Other Asia..... | 36,001 | 95,757 | 163,956 | 224,196 | 238,024 | 163,438 | 167,352 | 207,078 |
| Ceylon..... | 246 | 4,353 | 3,470 | 5,825 | 3,307 | 3,147 | 2,671 | 3,341 |
| India..... | 3,732 | 31,520 | 35,737 | 55,423 | 37,187 | 17,689 | 24,669 | 25,714 |
| Pakistan..... | 3,732 | 8,681 | 4,486 | 16,016 | 32,103 | 8,970 | 6,202 | 10,502 |

¹ Includes all Germany.² Less than \$500.³ Included with Germany, Federal Republic.⁴ Not listed separately.

6.—Value of Domestic Exports by Country 1950-56 with Averages 1935-39—concluded

| Country | Averages 1935-39 | 1950 | 1951 | 1952 | 1953 | 1954 | 1955 | 1956 |
|---|---------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Other Asia—concl. | | | | | | | | |
| Hong Kong..... | 1,651 | 8,004 | 12,033 | 9,582 | 9,000 | 8,252 | 7,253 | 7,026 |
| Malaya and Singapore..... | 2,173 | 4,097 | 10,796 | 7,067 | 2,854 | 2,983 | 3,421 | 3,914 |
| Other British East Indies..... | 5 | 32 | 1 | 13 | 27 | 18 | 53 | 127 |
| Afghanistan..... | 1 | 52 | 97 | 272 | 150 | 55 | 20 | 14 |
| Burma..... | 71 | 30 | 279 | 1,023 | 444 | 212 | 480 | 288 |
| China..... | 3,808 | 2,057 | 367 | 1,156 | — | 70 | 1,016 | 2,427 |
| Taiwan..... | 85 | 69 | 223 | 327 | 1,482 | 3,186 | 1,227 | 751 |
| Indo-China..... | 801 | 3,052 | 5,227 | 6,250 | 1,990 | 1,321 | 944 | 1,243 |
| Indonesia..... | 21,880 | 20,533 | 72,976 | 102,603 | 118,568 | 96,474 | 90,893 | 127,870 |
| Japan..... | 3 | 1,143 | 213 | 335 | 14,991 | 3,197 | 7,514 | 2,864 |
| Korea..... | 1,523 | 10,829 | 15,598 | 16,045 | 13,872 | 15,863 | 18,136 | 18,060 |
| Philippines..... | 1 | 103 | 107 | 282 | 190 | 43 | 174 | 454 |
| Portuguese Asia..... | 22 | 1,200 | 2,378 | 1,976 | 1,509 | 1,767 | 2,341 | 1,936 |
| Thailand..... | | | | | | | | |
| Other Africa | 20,648 | 55,393 | 78,090 | 69,878 | 69,996 | 63,126 | 75,362 | 82,834 |
| British East Africa..... | 789 | 849 | 1,444 | 1,031 | 348 | 375 | 602 | 415 |
| Mauritius and Seychelles..... | | | | | | | | 108 |
| Federation of Rhodesia and Nyasaland..... | 970 | 1,597 | 2,950 | 2,662 | 2,220 | 3,945 | 4,323 | 4,679 |
| Union of South Africa..... | 15,457 | 42,561 | 52,736 | 47,852 | 50,763 | 39,883 | 56,026 | 64,616 |
| Other British South Africa..... | 5 | 27 | 12 | 15 | 7 | 7 | 5 | 6 |
| Gambia..... | 35 | 12 | 26 | 9 | 29 | 38 | 77 | 60 |
| Gold Coast..... | 270 | 581 | 980 | 254 | 1,749 | 2,313 | 1,461 | 1,481 |
| Nigeria..... | 145 | 247 | 796 | 865 | 942 | 1,452 | 890 | 750 |
| Sierra Leone..... | 203 | 219 | 200 | 159 | 235 | 356 | 598 | 614 |
| Other British West Africa..... | 1 | 1 | 1 | — | 1 | 33 | 33 | 40 |
| Belgian Congo..... | 89 | 2,471 | 4,318 | 5,900 | 3,349 | 3,628 | 3,534 | 2,786 |
| Canary Islands..... | 17 | 237 | 107 | 825 | 23 | 1 | — | 3 |
| French Africa..... | 248 | 1,927 | 6,748 | 3,226 | 1,248 | 1,204 | 1,176 | 1,037 |
| Liberia..... | 17 | 109 | 1,373 | 203 | 3,145 | 4,071 | 2,456 | 1,781 |
| Madagascar..... | 13 | 117 | 102 | 97 | 64 | 41 | 71 | 47 |
| Morocco..... | 711 | 1,700 | 3,381 | 4,630 | 3,809 | 2,824 | 1,791 | 2,028 |
| Portuguese East Africa..... | 1,675 | 2,702 | 2,827 | 2,088 | 1,997 | 2,614 | 2,044 | 2,197 |
| Portuguese West Africa..... | 9 | 62 | 75 | 64 | 59 | 323 | 274 | 173 |
| Spanish Africa..... | | | | | | 17 | 2 | 11 |
| Oceania | 43,424 | 54,449 | 78,955 | 76,033 | 53,716 | 65,212 | 86,701 | 71,534 |
| Australia..... | 28,924 | 35,446 | 49,079 | 49,697 | 39,629 | 45,768 | 58,482 | 47,747 |
| Fiji..... | 387 | 234 | 802 | 519 | 424 | 654 | 1,055 | 1,121 |
| New Zealand..... | 12,799 | 10,983 | 21,757 | 18,844 | 7,475 | 14,807 | 22,344 | 17,995 |
| Other British Oceania..... | 25 | 15 | 82 | 71 | 64 | 103 | 84 | 118 |
| French Oceania..... | 80 | 737 | 626 | 424 | 487 | 389 | 477 | 482 |
| Hawaii..... | 1,207 | 6,830 | 6,418 | 6,280 | 5,385 | 3,222 | 3,924 | 3,859 |
| United States Oceania..... | 2 | 205 | 191 | 198 | 253 | 269 | 335 | 212 |
| Totals, Exports | 884,536 | 3,118,387 | 3,914,460 | 4,301,081 | 4,117,406 | 3,881,272 | 4,281,784 | 4,789,746 |
| Totals, Commonwealth Countries | 443,261 | 655,089 | 872,407 | 1,007,533 | 897,585 | 848,461 | 1,006,437 | 1,055,922 |
| Totals, United States and Dependencies | 323,124 | 2,036,780 | 2,314,848 | 2,322,177 | 2,433,614 | 2,329,792 | 2,574,728 | 2,836,405 |

1 Less than \$500.

2 Southern Rhodesia only.

The proportion of imports subject to duty varies widely between countries and geographic areas. Generally the Canadian tariff imposes duties on a greater proportion of manufactured goods than of natural products. Countries supplying chiefly manufactures to Canada tend to have duties charged on a greater proportion of their goods and also to have relatively higher average *ad valorem* rates of duty charged on their goods than is the case with countries supplying chiefly natural products. Variations in the proportion of imports dutiable as between different countries, or in the average *ad valorem* rates of duty charged on imports from different countries therefore do not necessarily indicate differences in the tariff relations between Canada and these countries.

7.—Values of Dutiable and Free Imports by Leading Countries 1954-56

| Country | 1954 | | | 1955 | | | 1956 | | |
|---|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | Dutiable | Free | Total | Dutiable | Free | Total | Dutiable | Free | Total |
| | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| North America¹ | 1,802,261 | 1,166,735 | 2,968,996 | 2,076,686 | 1,379,489 | 3,456,175 | 2,572,802 | 1,592,704 | 4,165,506 |
| United States..... | 1,799,403 | 1,161,976 | 2,961,380 | 2,073,568 | 1,378,610 | 3,452,178 | 2,569,557 | 1,592,109 | 4,161,667 |
| Central America and Antilles¹ | 77,611 | 26,173 | 103,784 | 87,774 | 48,545 | 136,319 | 98,953 | 63,975 | 162,928 |
| Barbados..... | 3,493 | 1,865 | 5,358 | 6,091 | 2,144 | 8,236 | 3,002 | 1,632 | 4,634 |
| Jamaica..... | 10,886 | 4,423 | 15,309 | 7,289 | 8,275 | 15,567 | 11,808 | 12,825 | 24,633 |
| Trinidad and Tobago.. | 1,240 | 8,355 | 9,595 | 1,780 | 8,060 | 9,840 | 2,412 | 8,639 | 11,051 |
| Cuba..... | 8,563 | 1,350 | 9,913 | 8,390 | 1,635 | 10,025 | 10,527 | 1,752 | 12,279 |
| Honduras..... | 2,579 | 11 | 2,589 | 1,582 | 85 | 1,666 | 6,908 | 171 | 7,079 |
| Mexico..... | 7,280 | 6,752 | 14,033 | 6,527 | 22,287 | 28,814 | 7,227 | 34,472 | 41,699 |
| Netherlands Antilles... | 20,273 | 310 | 20,582 | 30,012 | 711 | 30,722 | 37,818 | 301 | 38,119 |
| Panama..... | 5,787 | 63 | 5,850 | 8,837 | 200 | 9,037 | 7,566 | 19 | 7,585 |
| South America¹ | 69,221 | 188,966 | 258,127 | 70,913 | 202,743 | 273,657 | 73,767 | 231,926 | 305,693 |
| British Guiana..... | 9,485 | 10,997 | 20,482 | 8,580 | 9,727 | 18,307 | 10,955 | 9,543 | 20,498 |
| Argentina..... | 1,346 | 1,392 | 2,738 | 1,649 | 2,765 | 4,414 | 1,451 | 3,175 | 4,626 |
| Brazil..... | 21,329 | 10,294 | 31,623 | 21,996 | 8,751 | 30,747 | 25,129 | 9,703 | 34,832 |
| Colombia..... | 22,286 | 2,534 | 24,820 | 18,796 | 3,424 | 22,220 | 17,699 | 5,357 | 23,056 |
| Ecuador..... | 3,757 | 6 | 3,763 | 5,027 | 160 | 5,187 | 4,422 | 76 | 4,498 |
| Venezuela..... | 9,202 | 158,392 | 167,594 | 14,263 | 173,015 | 187,277 | 11,563 | 196,839 | 208,401 |
| Northwestern Europe¹ | 252,156 | 262,510 | 514,666 | 302,350 | 270,008 | 572,358 | 413,806 | 323,229 | 737,036 |
| United Kingdom..... | 171,424 | 221,047 | 392,472 | 175,622 | 224,909 | 400,531 | 220,510 | 264,169 | 484,679 |
| Belgium and Luxembourg..... | 16,807 | 8,270 | 25,077 | 19,473 | 9,578 | 29,051 | 40,873 | 11,855 | 52,728 |
| Denmark..... | 2,164 | 1,299 | 3,463 | 3,068 | 1,201 | 4,269 | 4,174 | 2,008 | 6,182 |
| France..... | 16,021 | 6,025 | 22,046 | 17,309 | 7,707 | 25,016 | 24,439 | 8,161 | 32,600 |
| Germany, Federal Republic..... | 33,404 | 11,081 | 44,485 | 42,484 | 13,119 | 55,603 | 68,244 | 21,104 | 89,349 |
| Netherlands..... | 13,264 | 9,298 | 22,562 | 14,217 | 6,734 | 20,951 | 16,247 | 7,529 | 23,776 |
| Sweden..... | 7,437 | 1,738 | 9,175 | 9,380 | 2,772 | 12,152 | 13,080 | 4,223 | 17,303 |
| Switzerland..... | 16,351 | 2,799 | 19,151 | 16,270 | 3,095 | 19,365 | 19,411 | 2,890 | 22,301 |
| Southern Europe¹ | 14,815 | 8,046 | 22,861 | 17,026 | 10,179 | 27,204 | 23,082 | 10,377 | 33,459 |
| Italy..... | 11,353 | 3,653 | 15,006 | 13,891 | 4,611 | 18,502 | 19,700 | 5,266 | 24,967 |
| Spain..... | 2,095 | 3,471 | 5,566 | 1,639 | 4,581 | 6,220 | 1,800 | 3,928 | 5,727 |
| Eastern Europe¹ | 3,429 | 1,297 | 4,727 | 4,455 | 1,254 | 5,709 | 9,476 | 1,824 | 11,300 |
| Czechoslovakia..... | 1,679 | 118 | 1,796 | 2,602 | 278 | 2,880 | 5,427 | 248 | 5,675 |
| Middle East¹ | 1,388 | 22,308 | 23,697 | 1,671 | 30,098 | 31,770 | 1,205 | 49,137 | 50,342 |
| Arabia..... | 22 | 2,203 | 2,225 | 6 | 6,980 | 6,986 | 13 | 24,699 | 24,712 |
| Lebanon..... | 7 | 17,407 | 17,413 | 8 | 17,912 | 17,920 | 3 | 19,598 | 19,601 |

¹ Includes other countries not specified.

7.—Values of Dutiable and Free Imports by Leading Countries 1954-56—concluded

| Country | 1954 | | | 1955 | | | 1956 | | |
|---|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | Dutiable | Free | Total | Dutiable | Free | Total | Dutiable | Free | Total |
| | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Other Asia¹ | 24,239 | 67,527 | 91,766 | 40,430 | 90,703 | 131,133 | 60,643 | 93,901 | 154,544 |
| Ceylon..... | 887 | 11,640 | 12,527 | 739 | 14,842 | 15,581 | 765 | 15,799 | 16,564 |
| Hong Kong..... | 3,119 | 1,035 | 4,154 | 4,421 | 1,455 | 5,875 | 4,735 | 964 | 5,699 |
| India..... | 4,232 | 23,822 | 28,054 | 5,310 | 29,837 | 35,147 | 6,333 | 24,565 | 30,898 |
| Malaya and Singapore.. | 77 | 19,509 | 19,586 | 193 | 28,617 | 28,810 | 320 | 28,238 | 28,558 |
| China..... | 157 | 1,464 | 1,621 | 553 | 2,573 | 3,125 | 565 | 5,156 | 5,721 |
| Japan..... | 14,855 | 4,342 | 19,197 | 27,902 | 8,816 | 36,718 | 46,382 | 14,445 | 60,826 |
| Other Africa¹ | 14,231 | 17,263 | 31,495 | 13,701 | 17,410 | 31,112 | 15,861 | 19,367 | 35,227 |
| British East Africa.... | 7,737 | 8,115 | 15,852 | 7,865 | 5,293 | 13,158 | 76 | 7,214 | 7,289 |
| Mauritius and Seychelles..... | | | | | | | 7,757 | 2 | 7,758 |
| Union of South Africa.. | 1,236 | 4,674 | 5,911 | 1,130 | 5,126 | 6,255 | 2,944 | 5,457 | 8,401 |
| Oceania¹ | 21,993 | 21,087 | 43,079 | 22,427 | 24,506 | 46,933 | 22,360 | 27,054 | 49,414 |
| Australia..... | 9,862 | 14,795 | 24,657 | 10,655 | 15,640 | 26,295 | 10,265 | 16,045 | 26,310 |
| Fiji..... | 5,813 | — | 5,813 | 5,016 | 1 | 5,016 | 6,266 | 1 | 6,267 |
| New Zealand..... | 1,437 | 5,877 | 7,314 | 3,618 | 8,698 | 12,316 | 1,597 | 10,724 | 12,321 |
| Totals, Imports | 2,311,344 | 1,781,852 | 4,093,196 | 2,637,435 | 2,074,935 | 4,712,370 | 3,291,955 | 2,413,494 | 5,705,449 |
| Totals, Common- wealth Countries ... | 235,504 | 338,727 | 574,231 | 242,870 | 367,432 | 610,302 | 295,266 | 410,644 | 705,911 |
| Totals, Other Countries | 2,075,840 | 1,443,126 | 3,518,965 | 2,394,565 | 1,707,503 | 4,102,068 | 2,996,689 | 2,002,850 | 4,999,538 |

¹ Includes other countries not specified.

8.—Average Ad Valorem Rates of Duty Collected and Percentage Proportions of Imports from the United Kingdom and from the United States to Totals of Dutiable and Free Imports 1947-56.

NOTE.—Figures for the years ended Mar. 31, 1868-1939 are given in the 1940 Year Book, p. 532. Calendar year figures for 1939-46 are given in the 1954 edition, p. 982.

| Year | United Kingdom | | | | | United States | | | | |
|-----------|--------------------------------------|---------------|----------------------------|--------------------|----------------------------|--------------------------------------|---------------|----------------------------|--------------------|----------------------------|
| | Average Ad Valorem Rates of Duty on— | | Dutiable to Total Dutiable | Free to Total Free | Per-centage of All Imports | Average Ad Valorem Rates of Duty on— | | Dutiable to Total Dutiable | Free to Total Free | Per-centage of All Imports |
| | Dutiable Imports | Total Imports | | | | Dutiable Imports | Total Imports | | | |
| | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. |
| 1947..... | 15.9 | 6.4 | 4.9 | 11.3 | 7.4 | 19.5 | 13.1 | 84.9 | 64.0 | 76.7 |
| 1948..... | 17.1 | 7.7 | 9.8 | 13.1 | 11.4 | 15.7 | 9.1 | 76.2 | 60.0 | 68.5 |
| 1949..... | 16.2 | 6.9 | 9.1 | 13.4 | 11.1 | 16.0 | 9.0 | 75.6 | 65.3 | 70.7 |
| 1950..... | 16.6 | 6.2 | 9.3 | 16.3 | 12.7 | 16.3 | 9.0 | 72.6 | 61.4 | 67.1 |
| 1951..... | 15.8 | 6.5 | 8.0 | 12.9 | 10.3 | 16.5 | 9.5 | 74.7 | 62.2 | 68.9 |
| 1952..... | 16.5 | 7.2 | 7.3 | 10.9 | 8.9 | 16.8 | 9.6 | 78.4 | 68.7 | 73.9 |
| 1953..... | 16.1 | 6.9 | 8.0 | 13.2 | 10.3 | 17.4 | 10.3 | 78.7 | 67.0 | 73.5 |
| 1954..... | 16.4 | 7.1 | 7.4 | 12.4 | 9.6 | 17.3 | 10.5 | 77.9 | 65.2 | 72.3 |
| 1955..... | 16.6 | 7.3 | 6.7 | 10.8 | 8.5 | 17.3 | 10.4 | 78.6 | 66.4 | 73.3 |
| 1956..... | 15.8 | 7.2 | 6.7 | 10.9 | 8.5 | 16.7 | 10.3 | 78.1 | 66.0 | 72.9 |

9.—Values and Percentages of Trade with Selected Overseas Countries via the United States
1955 and 1956

| Country | Imports via the United States | | | | Domestic Exports via the United States | | | |
|--|-------------------------------|-------------|----------------|-------------|--|-------------|---------------|-------------|
| | 1955 | | 1956 | | 1955 | | 1956 | |
| | \$'000 | p.c. | \$'000 | p.c. | \$'000 | p.c. | \$'000 | p.c. |
| North America | 7 | 1 | — | — | 124 | 1 | 501 | 1 |
| Central America and Antilles ² | 26,090 | 19.1 | 30,706 | 18.8 | 22,175 | 18.3 | 27,879 | 20.4 |
| British West Indies..... | 1,871 | 5.1 | 2,087 | 4.9 | 894 | 2.5 | 790 | 1.9 |
| Costa Rica..... | 4,400 | 74.0 | 3,011 | 77.3 | 976 | 27.3 | 1,068 | 38.9 |
| Cuba..... | 1,383 | 13.8 | 3,201 | 26.1 | 2,462 | 17.7 | 2,488 | 16.2 |
| Dominican Republic..... | 362 | 23.7 | 113 | 8.4 | 1,174 | 28.2 | 1,216 | 24.4 |
| Guatemala..... | 2,561 | 56.3 | 1,571 | 48.7 | 1,210 | 48.3 | 1,784 | 59.4 |
| Haiti..... | 243 | 15.2 | 146 | 8.7 | 722 | 29.5 | 627 | 21.5 |
| Honduras..... | 386 | 23.2 | 5,577 | 78.8 | 510 | 86.7 | 694 | 80.0 |
| Mexico..... | 5,984 | 20.8 | 7,062 | 16.9 | 9,945 | 26.8 | 14,794 | 37.6 |
| Netherlands Antilles..... | 139 | 0.5 | 479 | 1.3 | 850 | 58.9 | 793 | 58.8 |
| Panama..... | 7,293 | 80.7 | 6,713 | 88.5 | 906 | 32.1 | 740 | 9.6 |
| South America ² | 148,381 | 54.2 | 157,848 | 51.6 | 27,069 | 28.7 | 32,938 | 32.6 |
| British Guiana..... | 708 | 3.9 | 1,190 | 5.8 | 30 | 1.0 | 39 | 0.9 |
| Argentina..... | 434 | 9.8 | 660 | 14.3 | 1,344 | 19.7 | 1,142 | 18.5 |
| Brazil..... | 5,283 | 17.2 | 5,350 | 15.4 | 3,148 | 27.3 | 5,215 | 40.0 |
| Chile..... | 28 | 11.1 | 31 | 1.8 | 2,672 | 69.9 | 3,399 | 76.9 |
| Colombia..... | 7,891 | 35.5 | 6,503 | 28.2 | 6,752 | 29.8 | 7,463 | 42.4 |
| Ecuador..... | 1,504 | 29.0 | 1,334 | 29.7 | 1,226 | 24.8 | 1,501 | 34.5 |
| Peru..... | 388 | 44.6 | 320 | 11.6 | 2,714 | 45.2 | 3,005 | 26.5 |
| Surinam..... | 736 | 20.2 | 588 | 15.0 | 341 | 35.2 | 271 | 26.4 |
| Venezuela..... | 131,325 | 70.1 | 141,692 | 68.0 | 7,582 | 24.7 | 9,227 | 26.9 |
| Northwestern Europe ² | 1,714 | 0.3 | 2,051 | 0.3 | 26,469 | 2.4 | 26,520 | 2.2 |
| United Kingdom..... | 242 | 0.1 | 222 | 1 | 8,577 | 1.1 | 7,307 | 0.9 |
| Austria..... | 49 | 1.8 | 172 | 4.4 | 719 | 11.9 | 1,306 | 25.1 |
| Belgium and Luxembourg..... | 323 | 1.1 | 510 | 1.0 | 1,683 | 3.2 | 1,687 | 2.9 |
| France..... | 301 | 1.2 | 379 | 1.2 | 3,798 | 8.9 | 2,546 | 4.8 |
| Germany, Federal Republic..... | 159 | 0.3 | 261 | 0.3 | 3,272 | 3.6 | 7,138 | 5.3 |
| Netherlands..... | 103 | 0.5 | 77 | 0.3 | 3,217 | 6.7 | 1,460 | 2.7 |
| Switzerland..... | 374 | 1.9 | 265 | 1.2 | 1,584 | 6.2 | 1,107 | 3.3 |
| Southern Europe ² | 725 | 2.7 | 1,031 | 3.1 | 7,247 | 16.8 | 6,290 | 12.2 |
| Greece..... | 89 | 31.6 | 33 | 11.9 | 870 | 20.2 | 787 | 31.2 |
| Italy..... | 406 | 2.2 | 847 | 3.4 | 4,952 | 17.9 | 3,872 | 10.3 |
| Eastern Europe | 74 | 1.3 | 188 | 1.7 | 631 | 5.0 | 697 | 1.0 |
| Middle East ² | 21,183 | 66.7 | 28,641 | 56.9 | 4,672 | 38.6 | 5,248 | 43.8 |
| Arabia..... | 4,738 | 87.8 | 15,310 | 62.0 | 564 | 45.3 | 810 | 41.5 |
| Lebanon..... | 16,021 | 89.4 | 11,322 | 57.8 | 346 | 26.8 | 376 | 28.7 |
| Turkey..... | 84 | 11.2 | 129 | 18.3 | 566 | 87.5 | 645 | 72.7 |
| Other Asia ² | 8,847 | 6.7 | 13,420 | 8.7 | 11,971 | 7.2 | 15,629 | 7.5 |
| India..... | 328 | 0.9 | 1,145 | 3.7 | 1,452 | 5.9 | 1,912 | 7.4 |
| Malaya and Singapore..... | 149 | 0.5 | 68 | 0.2 | 1,465 | 42.8 | 1,717 | 43.9 |
| Hong Kong..... | 121 | 2.1 | 292 | 5.1 | 1,097 | 15.1 | 1,643 | 23.4 |
| Indonesia..... | 78 | 7.8 | 61 | 5.3 | 477 | 50.5 | 937 | 75.4 |
| Japan..... | 7,929 | 21.6 | 11,630 | 19.1 | 3,267 | 3.6 | 5,302 | 4.1 |
| Thailand..... | 25 | 2.2 | 58 | 5.2 | 926 | 39.6 | 393 | 20.3 |
| Other Africa ² | 4,524 | 14.5 | 3,068 | 8.7 | 22,627 | 30.0 | 25,288 | 30.5 |
| Union of South Africa..... | 18 | 0.3 | 210 | 2.5 | 14,873 | 26.5 | 17,911 | 27.7 |
| Other British South Africa..... | — | — | — | — | 8 | 7.5 | 4 | 62.7 |
| British West Africa..... | 2,274 | 49.0 | 916 | 18.1 | 2,054 | 67.1 | 2,767 | 94.0 |
| Belgian Congo..... | 1,705 | 63.8 | 1,555 | 56.7 | 3,013 | 85.3 | 2,053 | 73.7 |
| French Africa..... | 177 | 5.4 | 92 | 4.4 | 647 | 55.1 | 567 | 54.6 |
| Morocco..... | 21 | 10.8 | 23 | 11.6 | 757 | 42.3 | 779 | 38.4 |

¹ Less than 0.1 p.c.² Includes other countries not specified.³ Less than \$500.

**9.—Values and Percentages of Trade with Selected Overseas Countries via the United States
1955 and 1956—concluded**

| Country | Imports via the United States | | | | Domestic Exports via the United States | | | |
|----------------------------------|----------------------------------|------------|----------------|------------|---|-------------|----------------|-------------|
| | 1955 | | 1956 | | 1955 | | 1956 | |
| | \$'000 | p.c. | \$'000 | p.c. | \$'000 | p.c. | \$'000 | p.c. |
| Oceania¹ | 1,171 | 2.5 | 1,667 | 3.4 | 14,396 | 16.6 | 12,999 | 18.2 |
| Australia..... | 17 | 0.1 | 185 | 0.7 | 9,715 | 16.6 | 9,532 | 20.0 |
| New Zealand..... | 19 | 0.2 | 14 | 0.1 | 4,304 | 19.3 | 3,117 | 17.3 |
| Totals, Trade | 212,716 | 4.5 | 238,619 | 4.2 | 137,381 | 3.2 | 153,988 | 3.2 |

¹ Includes other countries not specified.

**10.—Imports Credited to Countries of Central and South America by Country of
Consignment 1955 and 1956**

| Country | 1955 | | | | 1956 | | | |
|--|------------------------------------|-----------------------------------|---|------------------------------------|------------------------------------|-----------------------------------|---|------------------------------------|
| | Consigned from Country Credited | | Con- signed from United States to Canada | Total Imports as Credited | Consigned from Country Credited | | Con- signed from United States to Canada | Total Imports as Credited |
| | Direct to a Canadian Port | Via a United States Port | | | Direct to a Canadian Port | Via a United States Port | | |
| | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Central America and Antilles... | 83,483 | 26,090 | 26,745 | 136,319 | 94,232 | 30,569 | 38,126 | 162,928 |
| Bermuda..... | 255 | 2 | 1 | 258 | 265 | 5 | 4 | 273 |
| British Honduras..... | 101 | 36 | 27 | 164 | 98 | 40 | 32 | 171 |
| Bahamas..... | 80 | 151 | 40 | 272 | 126 | 81 | 15 | 221 |
| Barbados..... | 8,229 | 1 | 7 | 8,236 | 4,629 | — | 5 | 4,634 |
| Jamaica..... | 14,840 | — | 727 | 15,567 | 24,621 | 1 | 11 | 24,633 |
| Leeward and Windward Islands.. | 2,454 | — | 2 | 2,456 | 2,193 | — | 1 | 2,193 |
| Trinidad and Tobago..... | 8,115 | 1,719 | 6 | 9,840 | 9,034 | 2,005 | 11 | 11,051 |
| Costa Rica..... | 810 | 4,400 | 738 | 5,948 | 374 | 3,011 | 508 | 3,893 |
| Cuba..... | 7,298 | 1,384 | 1,343 | 10,025 | 7,890 | 3,066 | 1,323 | 12,279 |
| Dominican Republic..... | 920 | 362 | 247 | 1,529 | 305 | 113 | 929 | 1,346 |
| El Salvador..... | 2,021 | 506 | 435 | 2,962 | 604 | 337 | 191 | 1,133 |
| French West Indies..... | 158 | — | — | 158 | 1 | — | — | 1 |
| Guatemala..... | 1,080 | 2,561 | 905 | 4,545 | 724 | 1,570 | 933 | 3,227 |
| Haiti..... | 84 | 243 | 1,270 | 1,597 | 264 | 146 | 1,273 | 1,683 |
| Honduras..... | 83 | 386 | 1,198 | 1,666 | 63 | 5,577 | 1,438 | 7,079 |
| Mexico..... | 5,287 | 5,984 | 17,543 | 28,814 | 6,761 | 7,062 | 27,877 | 41,699 |
| Netherlands Antilles..... | 29,791 | 139 | 792 | 30,722 | 35,298 | 479 | 2,342 | 38,119 |
| Nicaragua..... | 786 | 450 | 193 | 1,429 | 133 | 246 | 276 | 655 |
| Panama..... | 570 | 7,293 | 1,174 | 9,037 | 31 | 6,713 | 841 | 7,585 |
| Puerto Rico..... | 520 | 475 | 99 | 1,094 | 820 | 117 | 117 | 1,054 |
| South America | 99,821 | 148,381 | 25,455 | 273,657 | 121,842 | 157,848 | 26,003 | 305,693 |
| British Guiana..... | 17,234 | 708 | 365 | 18,307 | 18,974 | 1,190 | 333 | 20,498 |
| Argentina..... | 2,910 | 434 | 1,070 | 4,414 | 2,888 | 660 | 1,078 | 4,626 |
| Bolivia..... | 3 | — | 15 | 19 | 7 | 1 | 81 | 88 |
| Brazil..... | 14,612 | 5,283 | 10,852 | 30,747 | 19,598 | 5,350 | 9,884 | 34,832 |
| Chile..... | 64 | 23 | 159 | 250 | 1,435 | 31 | 238 | 1,704 |
| Colombia..... | 8,146 | 7,891 | 6,183 | 22,220 | 8,428 | 6,503 | 8,125 | 23,056 |
| Ecuador..... | 519 | 1,504 | 3,164 | 5,187 | 342 | 1,334 | 2,822 | 4,498 |
| Paraguay..... | 31 | 73 | 133 | 237 | 38 | 65 | 39 | 142 |
| Peru..... | 1,826 | 388 | 266 | 869 | 1,823 | 320 | 623 | 2,766 |
| Surinam..... | 2,669 | 736 | 241 | 3,646 | 2,801 | 588 | 536 | 3,925 |
| Uruguay..... | 221 | 10 | 252 | 483 | 500 | 115 | 542 | 1,157 |
| Venezuela..... | 53,197 | 131,325 | 2,755 | 187,277 | 65,007 | 141,692 | 1,702 | 208,401 |
| Grand Totals | 183,304 | 174,471 | 52,200 | 409,975 | 216,075 | 188,418 | 64,129 | 468,621 |

¹ Less than \$500.

Section 4.—Trade by Commodities

The tables in this Section provide detailed information on the composition of Canada's imports and exports, with commodities shown by group and individually.

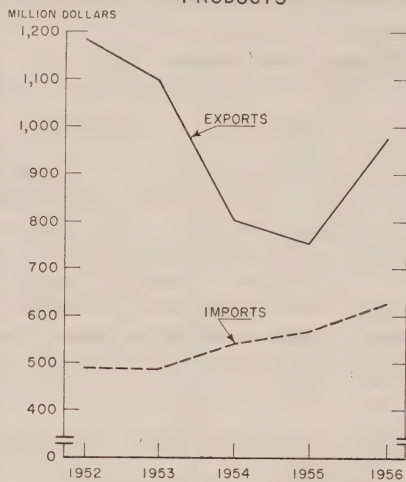
11.—Imports and Exports by Main Group 1954-56

| Group | Imports | | | Domestic Exports | | | Total Trade ¹ | | |
|---|------------------|------------------|------------------|----------------------|----------------------|----------------------|--------------------------|------------------------|------------------------|
| | 1954 | 1955 | 1956 | 1954 | 1955 | 1956 | 1954 | 1955 | 1956 |
| | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| United Kingdom..... | 392,472 | 400,531 | 484,679 | 653,408 | 769,313 | 812,706 | 1,050,786 | 1,174,525 | 1,303,111 |
| Agricultural and vegetable products..... | 28,159 | 29,341 | 29,927 | 227,241 | 272,142 | 308,731 | 255,471 | 301,672 | 338,937 |
| Animals and animal products..... | 10,539 | 13,251 | 15,208 | 21,874 | 17,859 | 21,669 | 32,793 | 31,772 | 37,547 |
| Fibres, textiles and textile products..... | 89,476 | 95,396 | 103,588 | 1,349 | 1,779 | 1,880 | 91,593 | 97,671 | 105,972 |
| Wood, wood products and paper..... | 5,108 | 5,813 | 6,277 | 146,657 | 157,983 | 135,331 | 151,815 | 163,825 | 141,716 |
| Iron and its products... | 129,895 | 111,993 | 162,939 | 15,515 | 30,486 | 37,683 | 147,496 | 144,361 | 202,590 |
| Non-ferrous metals and their products..... | 48,998 | 50,839 | 72,757 | 208,950 | 247,783 | 264,336 | 258,339 | 298,916 | 337,487 |
| Non-metallic minerals and their products..... | 28,490 | 32,009 | 34,012 | 12,271 | 18,549 | 19,207 | 41,143 | 51,121 | 53,811 |
| Chemicals and allied products..... | 18,590 | 22,026 | 22,639 | 15,676 | 19,945 | 21,283 | 34,439 | 42,705 | 43,979 |
| Miscellaneous commodities..... | 33,216 | 39,264 | 37,333 | 3,874 | 2,787 | 2,587 | 37,697 | 42,481 | 41,071 |
| United States..... | 2,961,380 | 3,452,178 | 4,161,667 | 2,317,153 | 2,559,342 | 2,818,655 | 5,328,818 | 6,064,360 | 7,040,681 |
| Agricultural and vegetable products..... | 251,286 | 269,514 | 321,765 | 213,325 | 160,528 | 199,334 | 466,454 | 432,756 | 522,529 |
| Animals and animal products..... | 53,147 | 66,943 | 73,065 | 183,721 | 181,457 | 177,468 | 239,448 | 251,254 | 253,634 |
| Fibres, textiles and textile products..... | 180,813 | 190,962 | 190,054 | 10,720 | 10,257 | 11,304 | 193,706 | 203,175 | 203,731 |
| Wood, wood products and paper..... | 149,925 | 176,996 | 205,508 | 1,107,411 | 1,221,026 | 1,248,918 | 1,258,017 | 1,398,887 | 1,455,496 |
| Iron and its products... | 1,143,658 | 1,432,479 | 1,939,666 | 168,580 | 225,315 | 260,665 | 1,333,465 | 1,680,037 | 2,226,555 |
| Non-ferrous metals and their products..... | 261,720 | 289,037 | 343,180 | 392,013 ² | 470,223 ² | 535,759 ² | 658,079 ² | 764,105 ² | 884,091 ² |
| Non-metallic minerals and their products..... | 334,613 | 350,550 | 390,618 | 98,413 | 149,440 | 224,840 | 440,033 | 508,722 | 622,996 |
| Chemicals and allied products..... | 190,489 | 222,612 | 250,365 | 77,855 ² | 85,191 ² | 84,975 ² | 269,827 ² | 309,447 ² | 337,172 ² |
| Miscellaneous commodities..... | 395,729 | 453,085 | 447,445 | 65,115 | 55,906 | 75,392 | 469,789 | 515,977 | 534,478 |
| All Countries..... | 4,093,196 | 4,712,370 | 5,705,449 | 3,881,272 | 4,281,784 | 4,789,746 | 5,040,113 | 9,063,654 | 10,568,592 |
| Agricultural and vegetable products..... | 540,289 | 567,475 | 628,777 | 803,481 | 752,348 | 974,964 | 1,345,947 | 1,323,580 | 1,605,870 |
| Animals and animal products..... | 85,412 | 107,802 | 122,154 | 269,861 | 263,621 | 260,249 | 358,353 | 375,099 | 386,393 |
| Fibres, textiles and textile products..... | 333,324 | 381,613 | 416,390 | 20,969 | 22,816 | 22,568 | 358,216 | 407,193 | 442,239 |
| Wood, wood products and paper..... | 166,001 | 195,956 | 228,208 | 1,378,354 | 1,520,921 | 1,514,458 | 1,545,164 | 1,717,869 | 1,743,948 |
| Iron and its products... | 1,322,497 | 1,605,968 | 2,231,354 | 300,692 | 398,782 | 458,849 | 1,649,116 | 2,034,010 | 2,721,720 |
| Non-ferrous metals and their products..... | 357,185 | 398,793 | 491,539 | 717,072 ² | 852,923 ² | 959,471 ² | 1,079,513 ² | 1,257,602 ² | 1,457,030 ² |
| Non-metallic minerals and their products..... | 599,216 | 663,684 | 765,971 | 145,573 | 206,200 | 292,100 | 752,560 | 879,553 | 1,066,670 |
| Chemicals and allied products..... | 220,406 | 260,499 | 288,586 | 153,238 ² | 183,507 ² | 182,854 ² | 375,567 ² | 446,081 ² | 473,652 ² |
| Miscellaneous commodities..... | 468,866 | 530,578 | 532,469 | 92,031 | 80,666 | 124,233 | 575,677 | 622,668 | 671,070 |

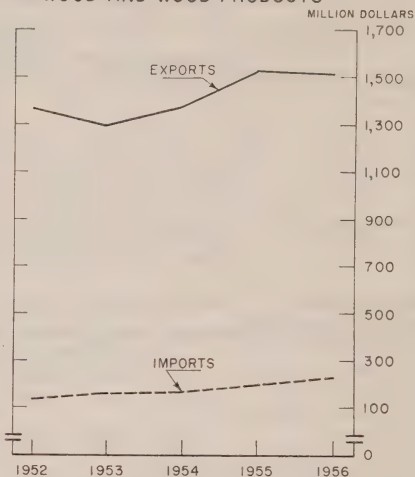
¹ Includes exports of foreign produce.² Revised; uranium ores and concentrates transferred from chemicals to non-ferrous metals as of Jan. 1, 1957.

FOREIGN TRADE BY COMMODITIES, 1952-56

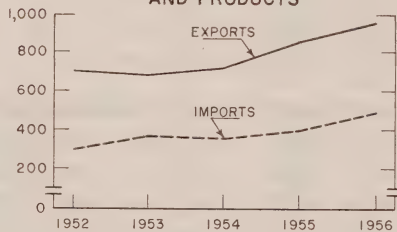
AGRICULTURAL AND VEGETABLE PRODUCTS



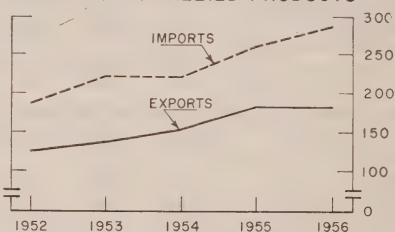
WOOD AND WOOD PRODUCTS



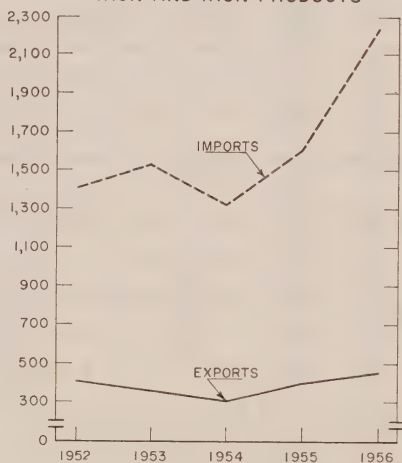
NON-FERROUS METALS AND PRODUCTS



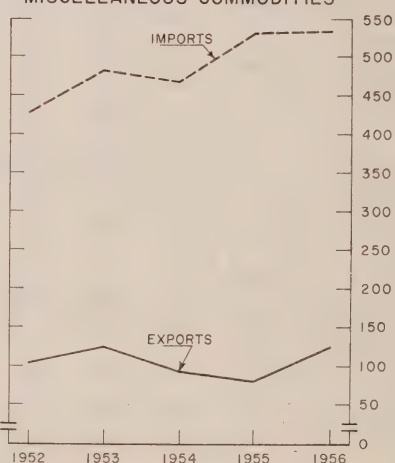
CHEMICAL AND ALLIED PRODUCTS



IRON AND IRON PRODUCTS



MISCELLANEOUS COMMODITIES



12.—Leading Imports 1939, 1946 and 1953-56

NOTE.—Commodities are arranged in order of value in 1956.

| Commodity | 1939 | 1946 | 1953 | 1954 | 1955 | 1956 |
|--|--------|---------|---------|---------|---------|---------|
| | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Machinery (non-farm) and parts..... | 42,831 | 130,287 | 401,856 | 380,219 | 445,875 | 628,521 |
| Automobile parts (except engines)..... | 25,308 | 66,453 | 222,284 | 180,433 | 246,505 | 284,788 |
| Petroleum, crude and partly refined..... | 39,650 | 89,483 | 213,094 | 212,787 | 229,779 | 271,291 |
| Electrical apparatus, <i>n.o.p.</i> | 27,891 | 47,788 | 198,275 | 207,539 | 226,715 | 257,292 |
| Rolling-mill products (iron and steel)..... | 32,336 | 53,376 | 124,813 | 97,563 | 129,679 | 234,709 |
| Tractors and parts..... | 15,003 | 45,620 | 126,354 | 82,814 | 115,375 | 159,627 |
| Automobiles, passenger..... | 13,725 | 25,209 | 79,454 | 60,846 | 83,726 | 125,539 |
| Pipes, tubes and fittings (iron and steel)..... | 2,340 | 8,411 | 58,327 | 59,080 | 50,290 | 123,088 |
| Engines, internal combustion, and parts..... | 7,096 | 19,650 | 107,736 | 84,914 | 100,917 | 120,986 |
| Coal, bituminous..... | 19,640 | 77,052 | 94,680 | 70,445 | 74,453 | 96,516 |
| Aircraft and parts (except engines)..... | 5,550 | 9,448 | 111,803 | 100,397 | 138,091 | 91,304 |
| Non-commercial items..... | 5,430 | 14,173 | 60,923 | 56,763 | 72,929 | 83,098 |
| Fuel oils..... | 1,650 | 33,066 | 65,151 | 70,921 | 77,754 | 81,593 |
| Tourist purchases..... | 9,487 | 9,125 | 73,840 | 68,767 | 71,467 | 75,205 |
| Farm implements and machinery (except tractors) and parts..... | 5,915 | 22,732 | 82,795 | 60,351 | 62,874 | 72,522 |
| Coffee, green..... | 4,110 | 15,473 | 57,595 | 64,214 | 57,010 | 62,657 |
| Cotton fabrics..... | 10,935 | 54,163 | 55,906 | 46,012 | 53,400 | 62,130 |
| Paperboard, paper and products..... | 8,654 | 18,834 | 39,208 | 43,558 | 52,690 | 61,954 |
| Principal chemicals (except acids) <i>n.o.p.</i> | 12,321 | 16,734 | 54,505 | 46,193 | 57,677 | 61,871 |
| Cotton, raw..... | 17,176 | 42,812 | 55,494 | 52,441 | 61,031 | 58,748 |
| Sugar, unrefined..... | 9,983 | 32,416 | 47,491 | 51,519 | 52,312 | 55,828 |
| Parcels of small value..... | 4,185 | 14,460 | 32,396 | 40,637 | 41,639 | 49,371 |
| Synthetic plastics, primary forms..... | 2,506 | 15,386 | 32,498 | 34,893 | 41,072 | 47,092 |
| Automobiles, freight..... | 1,949 | 6,493 | 17,304 | 15,134 | 30,442 | 45,846 |
| Apparel (except hats) of all textiles..... | 6,941 | 12,222 | 35,672 | 33,860 | 39,039 | 44,793 |
| Refrigerators and freezers..... | 1,189 | 5,201 | 55,530 | 38,863 | 43,935 | 44,622 |
| Vegetables, fresh..... | 6,150 | 25,748 | 29,250 | 33,028 | 38,852 | 43,694 |
| Cooking and heating apparatus and parts..... | 2,332 | 10,462 | 33,538 | 31,557 | 36,324 | 41,717 |
| Rubber, crude and semi-fabricated..... | 12,860 | 10,013 | 26,408 | 24,267 | 44,110 | 40,610 |
| Logs, timber and lumber..... | 3,767 | 6,035 | 23,585 | 23,995 | 32,773 | 40,555 |
| Wool fabrics..... | 10,408 | 20,115 | 41,743 | 32,367 | 31,948 | 40,191 |
| Iron ore..... | 4,179 | 6,467 | 28,194 | 20,416 | 31,563 | 38,722 |
| Scrap iron and steel..... | 2,064 | 2,163 | 3,477 | 2,048 | 14,356 | 36,299 |
| Gasoline..... | 7,998 | 14,912 | 48,650 | 34,564 | 35,831 | 35,217 |
| Newspapers, magazines and advertising matter..... | 8,436 | 13,434 | 33,446 | 34,067 | 34,794 | 34,435 |
| Tools..... | 2,377 | 10,135 | 31,004 | 23,599 | 26,739 | 32,779 |
| Citrus fruits, fresh..... | 8,860 | 34,632 | 26,506 | 31,272 | 29,903 | 32,596 |
| Coal, anthracite..... | 21,938 | 41,987 | 40,079 | 33,144 | 30,124 | 29,896 |
| Books, printed..... | 4,238 | 11,272 | 21,378 | 23,891 | 26,035 | 27,950 |
| Drugs and medicines..... | 3,992 | 9,440 | 22,877 | 25,328 | 25,018 | 26,560 |

13.—Leading Domestic Exports 1939, 1946 and 1953-56

NOTE.—Commodities are arranged in order of value in 1956.

| Commodity | 1939 | 1946 | 1953 | 1954 | 1955 | 1956 |
|--|---------------------|---------------------|---------------------|---------------------|---------|---------|
| | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Newsprint..... | 115,687 | 265,865 | 619,033 | 635,670 | 665,877 | 708,385 |
| Wheat..... | 109,051 | 250,306 | 567,907 | 375,339 | 338,216 | 513,081 |
| Planks and boards..... | 48,829 | 125,391 | 282,736 | 324,724 | 385,313 | 326,445 |
| Wood pulp..... | 31,000 | 114,021 | 248,675 | 271,418 | 297,304 | 304,536 |
| Aluminum, primary and semi-fabricated..... | 25,950 | 51,390 | 173,378 | 182,392 | 210,971 | 234,806 |
| Nickel, primary and semi-fabricated..... | 57,934 | 55,205 | 162,542 | 182,154 | 215,169 | 222,909 |
| Copper, primary and semi-fabricated..... | 52,396 | 34,940 | 117,351 | 127,334 | 163,924 | 194,206 |
| Iron ore..... | 43 | 4,353 | 30,843 | 39,719 | 99,814 | 144,443 |
| Petroleum, crude and partly refined..... | 1 | — | 6,228 | 6,318 | 36,253 | 103,923 |
| Asbestos, unmanufactured..... | 2,902 | 23,839 | 83,973 | 82,566 | 94,804 | 99,895 |
| Barley..... | 7,882 | 9,688 | 136,729 | 89,363 | 76,461 | 94,977 |
| Zinc, primary and semi-fabricated..... | 9,922 | 27,659 | 57,572 | 58,392 | 70,558 | 74,011 |
| Wheat flour..... | 16,378 | 126,733 | 102,160 | 88,029 | 74,442 | 71,549 |
| Whisky..... | 7,914 | 29,650 | 63,086 | 59,156 | 60,682 | 68,660 |
| Farm implements and machinery (except tractors) and parts..... | 6,975 | 28,662 | 67,821 | 70,819 | 72,206 | 63,937 |
| Fish, fresh and frozen..... | 10,212 | 31,110 | 51,219 | 56,650 | 55,263 | 59,594 |
| Pulpwood..... | 10,901 | 28,731 | 45,859 | 45,766 | 48,655 | 49,794 |
| Aircraft and parts (except engines)..... | 347 | 9,507 | 40,247 | 28,442 | 19,906 | 49,545 |
| Fertilizers, chemical..... | 9,179 | 32,108 | 42,633 | 42,342 | 56,296 | 49,211 |
| Machinery (non-farm) and parts..... | 11,668 ² | 16,675 ² | 38,618 ² | 38,172 ² | 35,789 | 47,130 |
| Uranium ores and concentrates..... | .. | .. | .. | 8,056 | 26,533 | 45,777 |
| Flaxseed (chiefly for crushing)..... | 1 | 11 | 11,546 | 13,717 | 31,279 | 43,624 |
| Platinum metals, unmanufactured..... | 6,178 | 15,450 | 26,290 | 27,640 | 26,315 | 35,656 |
| Lead, primary and semi-fabricated..... | 9,850 | 16,715 | 37,835 | 40,630 | 37,194 | 35,025 |
| Non-commercial items..... | 2,402 | 39,951 | 20,295 | 21,054 | 25,227 | 34,000 |
| Scrap iron and steel..... | 1,021 | 166 | 15,877 | 15,868 | 20,936 | 30,427 |
| Plywoods and veneers..... | 1,608 | 12,026 | 19,025 | 21,555 | 30,104 | 29,020 |
| Abrasives, artificial, crude..... | 4,380 | 11,727 | 28,976 | 27,222 | 26,942 | 28,389 |
| Synthetic plastics, primary forms..... | 351 | 1,540 | 9,456 | 19,994 | 27,365 | 26,577 |
| Fur skins, undressed..... | 14,130 | 30,928 | 21,070 | 22,997 | 23,287 | 25,893 |
| Rolling-mill products (iron and steel)..... | 3,864 | 7,528 | 16,863 | 5,393 | 20,313 | 25,719 |
| Shingles..... | 8,225 | 11,211 | 20,913 | 24,182 | 29,145 | 24,546 |
| Fish, cured..... | 3,884 | 13,808 | 22,271 | 23,341 | 23,939 | 22,835 |
| Electrical apparatus, <i>n.o.p.</i> | 3,229 | 20,939 | 37,705 | 22,913 | 20,700 | 21,407 |
| Ferro-alloys..... | 2,477 | 9,485 | 17,207 | 6,648 | 13,165 | 21,177 |
| Oil seed cake and meal..... | 279 | 58 | 8,222 | 7,746 | 15,431 | 20,891 |
| Pigs, ingots, blooms and billets (iron and steel)..... | 2,691 | 3,328 | 29,508 | 11,212 | 33,695 | 20,749 |
| Molluscs and crustaceans..... | 3,542 | 14,162 | 17,588 | 17,322 | 20,246 | 20,554 |
| Non-ferrous ores, <i>n.o.p.</i> | 1,049 | 1,107 | 13,306 | 11,604 | 14,667 | 20,406 |
| Automobile parts (except engines)..... | 2,992 | 21,110 | 16,999 | 15,375 | 20,333 | 19,969 |

¹ Less than \$500.² Revised to include exports of machine needles.

Detailed Imports and Exports.—Detailed statistics of all commodities of any importance imported into Canada from all countries, from the United Kingdom and from the United States during the calendar years 1954-56 are given in Table 14 while corresponding statistics for domestic exports appear in Table 15.

14.—Principal Imports into Canada for Consumption from All Countries, the United Kingdom and the United States 1954-56

| Item | All Countries | | | United Kingdom | | | United States | | |
|--|---------------|-------------|-------------|----------------|-----------|-----------|---------------|------------|------------|
| | 1954 | 1955 | 1956 | 1954 | 1955 | 1956 | 1954 | 1955 | 1956 |
| | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| I. Agricultural and Vegetable Products (except chemicals, fibres and wood) | | | | | | | | | |
| A. MAINLY FOOD | | | | | | | | | |
| Fruits— | | | | | | | | | |
| Fresh..... | 74,427,107 | 73,565,602 | 81,959,266 | | 19,891 | 15,833 | 48,798,961 | 47,495,523 | 55,436,660 |
| Dried..... | 13,056,330 | 12,087,894 | 12,363,692 | 9,791 | 85,017 | 58 | 6,067,044 | 6,292,436 | 6,639,440 |
| Canned or preserved..... | 18,686,327 | 18,561,043 | 20,316,236 | 17,275 | 7,695,558 | 8,702,418 | 7,695,558 | 8,702,418 | 10,538,363 |
| Fruit juices and fruit syrups..... | 13,099,921 | 15,244,970 | 19,126,273 | 44,174 | 52,687 | 76,942 | 11,634,106 | 14,012,202 | 17,704,319 |
| Totals, Fruits..... | 119,249,685 | 121,059,479 | 133,765,487 | 948,090 | 1,096,753 | 1,171,516 | 74,795,669 | 76,502,579 | 90,318,782 |
| Cocoanuts, and preparations of | | | | | | | | | |
| Nuts, not shelled and shelled..... | 5,211,915 | 2,508,506 | 3,159,372 | 16,504 | 26,483 | 14,850 | 638,402 | 510,168 | 700,824 |
| | 17,388,801 | 16,236,984 | 17,772,915 | 150,374 | 219,825 | 121,904 | 4,368,652 | 2,927,802 | 4,024,247 |
| Vegetables— | | | | | | | | | |
| Fresh..... | 34,809,634 | 41,127,716 | 47,827,730 | 1,175 | 55 | 23,180 | 32,030,970 | 38,410,005 | 45,234,069 |
| Dried..... | 478,300 | 7,673,668 | 9,905,854 | 61,054 | 47,500 | 82,883 | 345,014 | 561,569 | 712,449 |
| Canned..... | 7,108,387 | 7,382,552 | 10,571,160 | 277,684 | 238,354 | 228,801 | 5,211,241 | 5,116,228 | 7,199,358 |
| Pickles, sauces and catSUPS..... | 2,126,894 | 2,363,577 | 2,721,603 | 52,896 | 71,886 | 74,281 | 1,583,441 | 1,741,417 | 2,046,575 |
| Totals, Vegetables..... | 44,523,901 | 51,759,513 | 62,026,347 | 392,809 | 357,755 | 409,145 | 39,170,666 | 45,829,219 | 55,192,451 |
| Grains and Farinaceous Products— | | | | | | | | | |
| Grain (including rice)..... | 40,147,749 | 33,754,233 | 44,089,274 | 4,888 | 29,814 | 92,045 | 37,869,095 | 31,782,457 | 40,917,869 |
| Biscuits and other bakery products and prepared foods..... | 5,711,988 | 6,241,993 | 6,328,153 | 2,351,848 | 2,957,062 | 2,717,153 | 2,930,150 | 2,912,504 | 3,222,445 |
| Milled products, and farinaceous products, n.o.p..... | 1,259,980 | 1,422,349 | 1,690,252 | 2,777 | 6,821 | 6,579 | 1,130,911 | 1,313,808 | 1,548,031 |
| Totals, Grains and Farinaceous Products..... | 47,119,717 | 41,418,575 | 52,107,679 | 2,359,513 | 2,993,697 | 2,815,777 | 41,930,156 | 36,008,769 | 45,688,345 |
| Oils, vegetable, edible..... | 2,322,298 | 2,967,003 | 3,393,539 | 14,860 | 44,492 | 36,569 | 1,657,177 | 2,265,904 | 2,856,360 |
| Sugar and Its Products— | | | | | | | | | |
| Confectionery, including candy..... | 7,062,967 | 8,495,243 | 9,007,199 | 4,355,309 | 5,117,959 | 5,002,956 | 1,826,776 | 1,998,105 | 2,545,733 |
| Molasses and syrups..... | 3,985,229 | 4,344,996 | 4,481,078 | 36,963 | 185,202 | 232,266 | 1,005,931 | 936,603 | 1,441,660 |
| Sugar and sugar products, n.o.p..... | 51,721,420 | 52,669,625 | 56,183,197 | 8,868 | 5,912 | 11,290 | 131,162 | 27,131 | 117,059 |
| Totals, Sugar and Its Products..... | 62,769,616 | 65,509,864 | 69,671,474 | 4,401,140 | 5,309,163 | 5,246,512 | 2,763,869 | 2,961,839 | 4,104,452 |

14.—Principal Imports into Canada for Consumption from All Countries, the United Kingdom and the United States 1954-56—continued

| Item | All Countries | | | United Kingdom | | | United States | | |
|---|---------------|-------------|-------------|----------------|------------|------------|---------------|-------------|-------------|
| | 1954 | 1955 | 1956 | 1954 | 1955 | 1956 | 1954 | 1955 | 1956 |
| | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| I. Agricultural and Vegetable Products (except chemicals, fibres and wood)—concl. | | | | | | | | | |
| A. MAINLY FOOD—concluded | | | | | | | | | |
| Cocoa beans and cocoa and chocolate preparations | 25,135,841 | 19,883,489 | 13,820,136 | 844,903 | 1,312,590 | 1,678,350 | 12,808,784 | 9,107,710 | 3,555,735 |
| Coffee and chicory | 67,656,952 | 61,663,683 | 72,337,670 | 1,800,016 | 210,008 | 293,127 | 3,895,322 | 6,220,864 | 11,238,186 |
| Spices | 2,771,920 | 2,411,055 | 2,508,589 | 929,822 | 305,902 | 459,363 | 420,884 | 480,756 | 533,140 |
| Tea | 23,798,803 | 25,814,832 | 24,810,534 | 2,814,203 | 2,190,432 | 1,242,732 | 450,539 | 460,536 | 559,140 |
| Vegetable products, mainly food, <i>n.o.p.</i> | 4,270,066 | 4,808,680 | 5,255,595 | 513,840 | 414,223 | 425,935 | 3,647,416 | 4,223,731 | 4,603,389 |
| TOTALS, A. MAINLY FOOD | 422,219,515 | 416,071,673 | 480,659,337 | 14,388,974 | 14,502,153 | 13,945,800 | 186,080,336 | 187,164,866 | 222,878,631 |
| B. OTHER THAN FOOD | | | | | | | | | |
| Beverages, Alcoholic— | | | | | | | | | |
| Ale, beer, porter and stout | 285,780 | 300,243 | 307,219 | 275,190 | 282,765 | 282,563 | — | 76 | 218 |
| Whisky and other distilled beverages | 15,361,230 | 15,823,900 | 16,356,105 | 9,268,580 | 9,176,147 | 9,502,337 | 1,802,805 | 2,214,119 | 1,648,864 |
| Wines | 3,895,387 | 4,018,662 | 4,674,451 | 450,486 | 452,674 | 509,409 | 51,863 | 92,827 | 141,705 |
| TOTALS, Beverages, Alcoholic | 19,542,397 | 20,142,805 | 21,337,775 | 9,994,256 | 9,911,586 | 10,294,339 | 1,854,668 | 2,307,022 | 1,790,787 |
| Gums and resins | 5,824,937 | 6,746,989 | 8,072,384 | 83,344 | 175,103 | 300,862 | 4,444,951 | 5,570,798 | 6,366,181 |
| Oil cake and oil cake meal | 5,251,047 | 7,103,683 | 12,392,378 | — | — | — | 5,196,419 | 7,098,838 | 12,390,899 |
| Oils, vegetable, not edible | 24,143,735 | 22,529,198 | 23,077,398 | 1,221,163 | 1,749,635 | 617,644 | 15,037,790 | 11,305,409 | 13,181,473 |
| Plants, shrubs, trees, vines and florist stock | 4,240,300 | 4,670,445 | 5,719,127 | 21,183 | 17,217 | 29,926 | 2,057,080 | 2,428,308 | 3,229,486 |
| Rubber, crude and partially manufactured | 24,266,924 | 44,110,049 | 40,609,908 | 247,208 | 194,451 | 716,075 | 8,410,799 | 16,422,344 | 15,754,986 |
| Rubber, manufactures of | 21,471,676 | 30,874,858 | 36,451,398 | 1,617,772 | 2,001,610 | 2,512,433 | 18,085,800 | 25,679,312 | 30,145,845 |
| Seeds | 3,335,102 | 4,680,184 | 8,542,505 | 56,536 | 378,991 | 1,028,930 | 2,365,733 | 3,303,760 | 6,503,541 |
| Tobacco, unmanufactured | 2,595,914 | 2,821,996 | 2,782,264 | 209,387 | 258,761 | — | 1,610,287 | 1,883,239 | 1,915,636 |
| Tobacco, manufactured | 2,218,824 | 2,083,366 | 1,990,998 | 108,948 | 151,746 | 183,059 | 1,850,276 | 1,615,735 | 1,470,257 |
| Vegetable products, not food, <i>n.o.p.</i> | 5,178,205 | 5,640,050 | 7,141,676 | 118,948 | 151,746 | 163,059 | 4,292,173 | 4,734,132 | 6,135,859 |
| TOTALS, B. OTHER THAN FOOD | 118,069,061 | 151,403,623 | 168,117,811 | 13,569,797 | 14,839,100 | 15,980,762 | 65,205,976 | 82,348,805 | 98,888,950 |
| TOTALS, Agricultural and Vegetable Products | 540,288,576 | 587,475,296 | 628,777,148 | 28,158,771 | 29,341,253 | 29,926,562 | 231,286,312 | 269,513,671 | 321,764,581 |

II. Animals and Animal Products (except chemicals and fibres)

| II. Animals and Animal Products (except chemicals and fibres) | | | | | | | | | |
|---|--------------------|--------------------|--------------------|-------------------|-------------------|-------------------|--------------------|--------------------|-------------------|
| Animals, Living— | | | | | | | | | |
| Animals, pure bred, for improvement of stock..... | 1,543,744 | 1,419,898 | 1,860,837 | 256,357 | 223,883 | 235,388 | 1,286,168 | 1,192,493 | 1,622,460 |
| Common livestock..... | 1,330,761 | 2,144,581 | 2,220,819 | 29,757 | 29,757 | 109,574 | 1,302,556 | 2,110,277 | 2,110,277 |
| Animals, living, <i>n.o.p.</i> | 899,695 | 1,081,103 | 1,236,474 | 6,195 | 5,594 | 14,829 | 869,846 | 973,991 | 990,185 |
| Totals, Animals, Living..... | 3,774,200 | 4,645,552 | 5,318,130 | 285,505 | 259,234 | 359,791 | 3,458,570 | 4,281,308 | 4,722,922 |
| Fish and Fishery Products, <i>n.o.p.</i> — | | | | | | | | | |
| Fish, salted and frozen..... | 1,792,918 | 1,708,152 | 2,131,895 | 4,707 | 19,473 | 31,860 | 865,093 | 896,768 | 1,190,933 |
| Fish, fresh, dried, pickled and smoked..... | 518,381 | 592,721 | 579,787 | 139,697 | 184,909 | 161,228 | 36,537 | 35,094 | 36,782 |
| Fish, canned or preserved, <i>n.o.p.</i> | 2,597,592 | 2,599,094 | 7,710,668 | 76,550 | 85,064 | 108,936 | 267,461 | 202,257 | 275,780 |
| Molluscs and crustaceans..... | 2,295,478 | 3,066,261 | 3,563,351 | 1,400 | 1,136 | 1,637 | 1,972,194 | 2,584,903 | 2,919,523 |
| Sponges and other articles of the fisheries, <i>n.o.p.</i> | 1,350,607 | 1,622,236 | 2,049,454 | 2,767 | 3,054 | 2,495 | 1,203,279 | 1,470,753 | 2,107,224 |
| Totals, Fishery Products, <i>n.o.p.</i>..... | 8,524,976 | 9,588,464 | 16,035,155 | 225,121 | 293,636 | 306,156 | 4,344,564 | 5,207,775 | 6,130,250 |
| Fur skins, undressed..... | | | | | | | | | |
| Fur skins, wholly or partially dressed, and manu- factures of fur..... | 14,955,183 | 20,104,678 | 19,231,127 | 1,262,543 | 2,738,356 | 3,253,206 | 12,255,421 | 14,774,424 | 13,431,675 |
| Hair and bristles, and manufactures of..... | 3,954,728 | 4,743,913 | 4,600,560 | 441,624 | 570,508 | 137,310 | 3,085,271 | 3,532,655 | 3,819,181 |
| Hides and skins, raw (except fur skins)..... | 1,365,570 | 1,711,647 | 1,417,569 | 519,402 | 586,385 | 500,074 | 3,821,920 | 416,712 | 4,097,966 |
| Leather, unmanufactured..... | 5,129,397 | 7,548,611 | 9,039,659 | 36,366 | 15,521 | 15,635 | 4,590,757 | 6,654,242 | 8,097,966 |
| Leather, manufactures of..... | 7,763,948 | 9,337,768 | 10,009,764 | 3,650,524 | 4,006,532 | 4,714,767 | 3,744,927 | 4,680,402 | 4,912,382 |
| Meats, fresh and frozen..... | 8,649,631 | 9,055,459 | 9,964,298 | 3,236,065 | 3,431,805 | 3,936,226 | 4,405,576 | 4,378,648 | 4,368,648 |
| Meats, other, and preparations of meat..... | 11,298,140 | 12,570,551 | 12,570,551 | 6,831 | 8,183 | 8,992 | 4,549,646 | 8,128,456 | 10,433,048 |
| Milk and its products..... | 8,231,571 | 8,532,130 | 9,195,544 | 164,939 | 117,488 | 148,252 | 3,476,279 | 3,737,442 | 5,075,752 |
| Oils, fish, seal and whale..... | 8,081,863 | 8,895,003 | 4,590,193 | 13,853 | 24,214 | 47,377 | 448,142 | 563,133 | 752,926 |
| Animal oils, fats, greases and wax, <i>n.o.p.</i> | 1,836,632 | 2,522,295 | 901,963 | 32,239 | 59,624 | 120,325 | 1,343,306 | 2,099,815 | 377,000 |
| Animal oils, fats, greases and wax, <i>n.o.p.</i> | 2,065,545 | 3,297,566 | 4,325,315 | 70,700 | 145,601 | 171,926 | 1,967,360 | 2,821,034 | 4,041,443 |
| Gelatine, edible..... | 1,141,650 | 1,176,839 | 1,366,828 | 317,753 | 239,522 | 325,831 | 389,353 | 646,266 | 767,327 |
| Sausage casings, cleaned..... | 2,220,576 | 3,176,610 | 4,911,164 | — | — | 151,092 | 38,665 | 49,186 | 78,497 |
| Animal products, <i>n.o.p.</i> | 5,691,339 | 6,407,117 | 8,562,563 | 656,609 | 821,379 | 928,892 | 4,448,924 | 4,971,158 | 6,053,413 |
| Totals, Animals and Animal Products..... | 85,411,816 | 107,801,622 | 122,154,323 | 10,529,489 | 13,251,005 | 15,208,163 | 53,146,835 | 66,942,786 | 73,065,939 |
| III. Fibres, Textiles and Textile Products | | | | | | | | | |
| Cotton— | | | | | | | | | |
| Raw and unmanufactured..... | 54,000,228 | 62,988,442 | 60,653,081 | 188 | 14,369 | 2,959 | 50,884,274 | 42,356,563 | 31,032,342 |
| Yarn, thread and cordage..... | 7,855,610 | 8,815,337 | 10,300,040 | 3,766,880 | 4,271,557 | 5,490,058 | 3,960,328 | 4,387,576 | 4,690,835 |
| Piece goods (fabrics)..... | 46,011,962 | 53,399,704 | 62,123,799 | 5,466,194 | 5,074,325 | 5,526,698 | 35,752,050 | 40,273,448 | 44,314,358 |
| Laces and embroideries..... | 2,348,753 | 2,059,617 | 1,842,887 | 156,131 | 186,399 | 126,674 | 1,112,527 | 702,373 | 618,171 |
| Clothing and wearing apparel..... | 7,138,105 | 9,289,263 | 11,491,204 | 1,764,660 | 1,626,716 | 1,897,622 | 4,566,781 | 5,366,781 | 5,555,781 |
| Cotton manufactures, <i>n.o.p.</i> | 13,019,414 | 12,708,617 | 13,443,175 | 1,551,523 | 1,436,811 | 1,356,937 | 4,256,212 | 5,893,427 | 9,223,150 |
| Totals, Cotton..... | 130,364,099 | 149,177,980 | 160,859,886 | 12,755,026 | 12,488,847 | 14,099,818 | 105,538,676 | 102,109,972 | 95,434,637 |

III. Fibres, Textiles and Textile Products

[illegible]

14.—Principal Imports into Canada for Consumption from All Countries, the United Kingdom and the United States 1954-56—continued

| Item | All Countries | | | United Kingdom | | | United States | | |
|---|---------------|------------|-------------|----------------|------------|------------|---------------|------------|------------|
| | 1954 | 1955 | 1956 | 1954 | 1955 | 1956 | 1954 | 1955 | 1956 |
| | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| III. Fibres, Textiles and Textile Products— | | | | | | | | | |
| concluded | | | | | | | | | |
| Flax, Hemp and Jute— | | | | | | | | | |
| Ram, thread and twine..... | 1,793,756 | 1,923,090 | 2,046,634 | 1,160,025 | 1,284,911 | 1,364,766 | 195,507 | 211,462 | 202,781 |
| Piece goods (fabrics)..... | 12,058,776 | 13,412,259 | 13,249,072 | 1,499,954 | 1,377,760 | 1,474,094 | 765,515 | 913,826 | 1,095,200 |
| Other flax, hemp and jute and manufactures of..... | 6,787,260 | 7,626,329 | 9,218,817 | 2,428,976 | 2,619,099 | 2,741,564 | 2,653,505 | 2,970,719 | 3,450,158 |
| Totals, Flax, Hemp and Jute..... | 20,639,792 | 22,961,678 | 24,514,523 | 5,088,955 | 5,281,770 | 5,580,424 | 3,014,527 | 4,096,007 | 4,748,139 |
| Silk— | | | | | | | | | |
| Piece goods (fabrics)..... | 4,052,874 | 4,717,914 | 6,228,254 | 114,226 | 97,982 | 101,868 | 2,830,895 | 3,303,753 | 3,481,639 |
| Clothing and wearing apparel..... | 1,825,398 | 2,125,623 | 2,094,420 | 214,908 | 237,640 | 245,210 | 580,913 | 659,950 | 794,731 |
| Other silk and manufactures of..... | 477,021 | 426,478 | 353,812 | 30,478 | 11,503 | 13,106 | 304,383 | 317,663 | 268,737 |
| Totals, Silk..... | 6,355,293 | 7,270,015 | 8,676,486 | 359,612 | 347,125 | 360,184 | 3,716,191 | 4,281,366 | 5,045,107 |
| Wool— | | | | | | | | | |
| Raw and unmanufactured..... | 28,491,009 | 33,491,834 | 34,749,839 | 14,766,024 | 16,198,256 | 15,804,621 | 2,582,499 | 3,502,367 | 3,940,118 |
| Yarns and wools..... | 4,424,792 | 4,235,944 | 3,879,136 | 3,083,429 | 3,383,469 | 3,224,743 | 245,692 | 124,203 | 138,589 |
| Piece goods (fabrics)..... | 32,566,877 | 31,947,781 | 40,190,538 | 29,333,682 | 28,504,042 | 35,261,792 | 1,040,188 | 897,637 | 920,951 |
| Carpets and rugs..... | 9,966,989 | 10,194,409 | 11,999,948 | 3,654,069 | 3,565,632 | 4,336,766 | 163,867 | 206,292 | 407,296 |
| Clothing and wearing apparel..... | 12,219,120 | 12,573,829 | 14,321,199 | 9,506,648 | 9,897,009 | 9,671,515 | 973,228 | 1,061,394 | 1,190,365 |
| Wool manufactures, <i>n.o.p.</i> | 1,614,975 | 1,721,057 | 1,671,420 | 831,953 | 894,569 | 894,569 | 464,217 | 532,781 | 531,099 |
| Totals, Wool..... | 88,482,772 | 94,433,054 | 107,012,080 | 61,266,772 | 61,750,391 | 69,194,006 | 5,469,691 | 6,324,674 | 7,128,418 |
| Synthetic Textile Fibre— | | | | | | | | | |
| Unmanufactured synthetic textile fibre..... | 3,552,811 | 6,825,513 | 7,257,213 | 1,130,509 | 2,155,271 | 1,076,988 | 1,971,170 | 4,197,478 | 5,729,043 |
| Yarn, twist and thread..... | 5,644,083 | 6,992,801 | 7,637,492 | 3,700,999 | 4,608,063 | 5,245,872 | 3,839,122 | 5,257,458 | 4,947,542 |
| Piece goods (fabrics)..... | 19,236,662 | 22,015,131 | 23,569,720 | 814,775 | 908,619 | 1,111,101 | 17,268,502 | 19,846,133 | 20,378,154 |
| Clothing and wearing apparel..... | 8,778,558 | 10,844,951 | 11,460,555 | 555,223 | 1,253,887 | 2,213,068 | 7,439,004 | 7,669,922 | 6,907,902 |
| Synthetic textile fibre manufactures, <i>n.o.p.</i> | 3,611,042 | 4,518,474 | 5,827,830 | 278,906 | 296,358 | 332,321 | 3,137,455 | 3,886,112 | 4,910,757 |
| Totals, Synthetic Textile Fibre..... | 40,823,156 | 51,506,873 | 55,762,720 | 2,949,244 | 5,015,218 | 4,702,450 | 33,695,313 | 40,887,103 | 42,873,398 |
| Kapok; manila fibre; sisal,istle and tampico fibres; and other vegetable fibres—not coloured or further manufactured than dried, cleaned, cut to size, ground and sifted..... | 6,824,932 | 7,142,955 | 7,463,070 | 28,896 | 30,016 | 66,777 | 1,617,178 | 1,747,117 | 1,440,297 |
| Grasses and vegetable fibres, and manufactures of, <i>n.o.p.</i> | 900,996 | 1,147,321 | 1,257,196 | 50,912 | 19,507 | 63,871 | 464,856 | 591,005 | 657,617 |

| | | | | | | | | | |
|---|-------------|-------------|-------------|------------|------------|-------------|-------------|-------------|-------------|
| Mixed Textile Products— Rags and waste..... Cordage, rope, twine, threads, fish nets and nettings, and fish lines, <i>n.o.p.</i> Oilcloths and other coated or impregnated cloth..... Lace and embroideries, <i>n.o.p.</i> Hats, caps, bonnets, berets, hoods and shapes. Clothing and wearing apparel, <i>n.o.p.</i> Hat brads, hat sweats, etc., for hats and caps. Totals, Mixed Textile Products..... | 8,256,980 | 9,330,744 | 8,992,374 | 404,404 | 591,381 | 586,948 | 6,652,562 | 7,970,423 | 7,671,432 |
| | 4,206,018 | 5,796,770 | 6,218,172 | 2,217,929 | 2,659,388 | 2,729,457 | 964,097 | 1,227,107 | 992,086 |
| | 12,821,775 | 17,620,232 | 18,695,940 | 3,133,636 | 5,944,025 | 4,754,790 | 9,279,969 | 10,973,422 | 12,381,454 |
| | 2,705,788 | 2,181,393 | 1,394,019 | 197,925 | 165,693 | 162,716 | 1,751,663 | 1,377,492 | 1,571,262 |
| Other textile products..... | 2,957,659 | 3,422,314 | 4,408,056 | 279,875 | 310,986 | 393,730 | 1,902,635 | 2,303,681 | 2,667,039 |
| | 1,879,566 | 2,211,213 | 2,453,536 | 85,516 | 77,292 | 95,595 | 1,708,020 | 1,492,552 | 2,088,739 |
| | 975,955 | 1,014,223 | 890,148 | 22,121 | 4,514 | 7,082 | 488,858 | 517,164 | 510,492 |
| | 33,803,721 | 41,636,894 | 44,083,145 | 6,341,406 | 9,753,279 | 8,730,318 | 22,747,804 | 26,311,841 | 27,852,504 |
| Totals, Fibres, Textiles and Textile Products..... | 5,129,473 | 6,336,575 | 6,760,945 | 635,488 | 709,484 | 790,063 | 3,949,066 | 4,643,315 | 4,874,057 |
| | 333,324,234 | 381,613,345 | 416,390,651 | 89,476,311 | 95,395,637 | 103,557,941 | 180,813,301 | 190,962,460 | 190,654,174 |
| | 5,450,504 | 7,987,646 | 12,414,004 | — | — | — | 5,450,504 | 7,955,234 | 12,411,949 |
| | 19,633,633 | 26,506,419 | 33,057,885 | 287 | 20,878 | 3,298 | 18,244,266 | 24,668,952 | 31,070,892 |
| IV. Wood, Wood Products and Paper factured— Lumber and timber, <i>n.o.p.</i> Plywoods, veneers and other sawmill and planing mill products, <i>n.o.p.</i> Pulpwood and other unmanufactured wood..... Totals, Wood, Unmanufactured or Partially Manufactured..... | 3,005,399 | 4,156,996 | 6,027,732 | 5,078 | 2,239 | 2,536 | 1,605,096 | 1,833,339 | 3,240,088 |
| | 2,404,068 | 3,019,623 | 4,181,386 | 776 | 243 | 360 | 2,224,883 | 2,856,125 | 3,872,057 |
| | 30,493,604 | 41,640,684 | 55,681,007 | 6,141 | 23,360 | 6,194 | 27,624,749 | 37,413,650 | 50,594,986 |
| | 1,455,968 | 1,648,482 | 2,218,460 | 13,002 | 9,381 | 9,212 | 1,442,813 | 1,637,760 | 2,208,877 |
| Wood, Manufactured— Barrels, staves, headings and other cooperage. Corks and other manufactures of corkwood or cork bark..... Wood pulp..... Fibre, vulcanized, kartavert, indurated fibre and like material, and manufactures of, <i>n.o.p.</i> Furniture (except of metal)..... Manufactures of wood, <i>n.o.p.</i> Totals, Wood, Manufactured..... | 3,912,250 | 4,987,408 | 4,356,169 | 36,113 | 64,065 | 71,228 | 1,900,842 | 2,338,703 | 2,072,676 |
| | 5,849,899 | 6,989,204 | 8,117,220 | — | — | 1,256 | 6,989,204 | 8,115,964 | 8,115,964 |
| | 1,026,955 | 1,042,590 | 1,105,602 | 7,644 | 13,021 | 12,197 | 1,014,538 | 1,015,085 | 1,055,854 |
| | 4,923,701 | 5,586,791 | 6,772,678 | 164,557 | 150,765 | 192,963 | 4,392,590 | 5,557,356 | 6,557,356 |
| Paper— Wallboards and other pulpboards and fibre- boards..... Printing paper..... Wrapping and packing paper..... Writing, bond and ledger papers..... Waste paper of all kinds..... Aluminized and other chemically prepared papers for photographers' use..... | 6,725,969 | 7,968,574 | 10,353,510 | 277,679 | 550,987 | 316,187 | 5,460,191 | 6,237,891 | 8,521,503 |
| | 23,894,742 | 28,223,049 | 32,923,639 | 489,085 | 788,219 | 603,043 | 19,890,089 | 23,034,274 | 27,532,230 |
| | 12,515,308 | 14,859,346 | 18,762,196 | 88,376 | 128,798 | 144,627 | 12,110,927 | 14,460,465 | 17,872,160 |
| | 2,818,566 | 3,571,777 | 4,602,101 | 230,413 | 273,431 | 357,142 | 2,579,537 | 3,286,106 | 4,229,431 |
| Totals, Wood, Manufactured or Partially Manufactured..... | 1,580,296 | 1,598,203 | 1,981,367 | 21,398 | 28,803 | 40,263 | 1,539,871 | 1,615,877 | 1,921,752 |
| | 739,897 | 1,095,230 | 1,330,773 | 22,278 | 28,399 | 22,701 | 710,182 | 1,050,586 | 1,289,497 |
| | 1,114,905 | 1,787,212 | 2,150,730 | — | — | — | 1,114,905 | 1,787,212 | 2,149,748 |
| | 2,532,306 | 2,643,860 | 3,540,753 | 78,002 | 97,549 | 86,426 | 2,142,251 | 2,306,788 | 2,896,400 |

14.—Principal Imports into Canada for Consumption from All Countries, the United Kingdom and the United States 1954-56—continued

| Item | All Countries | | | | United Kingdom | | | | United States | | | |
|---|--------------------|--------------------|--------------------|----|------------------|------------------|------|------------------|--------------------|--------------------|------|--------------------|
| | 1954 | | 1955 | | 1954 | | 1955 | | 1954 | | 1955 | |
| | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| IV. Wood, Wood Products and Paper— | | | | | | | | | | | | |
| concluded | | | | | | | | | | | | |
| Paper—concluded | | | | | | | | | | | | |
| Cigarette paper..... | 1,337,115 | 1,492,797 | 1,543,153 | | 1,242 | 3,119 | | 365 | 1,162,676 | 1,426,976 | | 1,334,245 |
| Cable insulating paper..... | 1,096,511 | 1,555,452 | 2,015,151 | | 42,278 | 66,922 | | 111,572 | 1,054,233 | 1,468,530 | | 1,855,938 |
| Shipping and other containers of paperboard and fibreboard..... | 3,626,462 | 4,899,815 | 5,391,240 | | 13,342 | 41,652 | | 34,878 | 3,598,691 | 4,850,121 | | 5,341,776 |
| Paper and manufactures of, <i>n.o.p.</i> | 16,196,948 | 19,256,708 | 20,899,890 | | 1,118,750 | 1,257,712 | | 1,315,246 | 14,665,215 | 17,511,954 | | 18,886,036 |
| Totals, Paper..... | 43,558,314 | 52,690,400 | 62,217,354 | | 1,596,079 | 1,929,385 | | 2,113,220 | 40,678,488 | 49,664,615 | | 57,757,003 |
| Books and Printed Matter— | | | | | | | | | | | | |
| Newspapers, magazines, charts, maps, music and photographs..... | 32,557,740 | 34,591,319 | 35,252,580 | | 266,176 | 259,683 | | 323,965 | 31,700,990 | 33,648,972 | | 34,077,351 |
| Printed advertising matter, commercial blank forms, pictorial postcards, and other printed and lithographed matter, <i>n.o.p.</i> | 11,553,602 | 12,713,753 | 14,088,222 | | 552,281 | 571,936 | | 610,496 | 10,766,059 | 11,844,608 | | 13,105,023 |
| Bibles and prayer books, psalm and hymn books, text books, and other books and pamphlets..... | 23,942,818 | 26,099,315 | 28,045,500 | | 2,198,333 | 2,239,927 | | 2,619,895 | 19,364,890 | 21,389,435 | | 22,441,169 |
| Totals, Books and Printed Matter..... | 68,054,160 | 73,404,387 | 77,386,302 | | 3,016,790 | 3,071,546 | | 3,554,356 | 61,831,939 | 66,883,015 | | 69,623,543 |
| Totals, Wood, Wood Products and Paper. | 166,000,820 | 195,958,520 | 223,206,362 | | 5,108,095 | 5,812,510 | | 6,276,813 | 149,925,265 | 176,995,554 | | 205,507,762 |
| V. Iron and Its Products | | | | | | | | | | | | |
| Iron ore..... | 20,415,600 | 31,563,361 | 38,722,103 | | — | 934 | | 852 | 19,086,037 | 30,472,608 | | 36,556,207 |
| Ferro-alloys..... | 3,085,000 | 4,755,719 | 6,226,437 | | 1,090,915 | 64,014 | | 660,903 | 1,951,272 | 4,411,622 | | 5,100,224 |
| Pigs, ingots, blooms and billets..... | 1,850,802 | 1,899,621 | 2,905,786 | | 248,143 | 102,279 | | 113,620 | 1,291,786 | 1,784,168 | | 2,573,511 |
| Scrap iron..... | 2,048,357 | 14,356,639 | 36,299,406 | | 3,388,903 | 2,692 | | 158 | 1,571,214 | 14,078,275 | | 36,292,249 |
| Castings and forgings..... | 10,303,829 | 12,900,225 | 15,087,663 | | 4,436,033 | 4,240,672 | | 5,323,550 | 5,927,819 | 8,380,162 | | 10,088,679 |
| Rolling-Mill Products— | | | | | | | | | | | | |
| Bars and rods, including rails..... | 11,817,421 | 16,613,647 | 29,932,605 | | 2,342,309 | 2,391,707 | | 5,315,900 | 8,302,796 | 13,033,861 | | 20,726,460 |
| Sheets, plates, hoop, band and strip..... | 53,965,560 | 75,234,069 | 123,631,789 | | 6,303,376 | 4,947,972 | | 11,506,808 | 45,332,909 | 67,185,317 | | 90,558,739 |
| Structural iron and steel..... | 32,480,442 | 37,631,062 | 81,144,708 | | 1,433,982 | 991,810 | | 4,566,511 | 26,109,670 | 26,869,057 | | 49,558,828 |
| Totals, Rolling-Mill Products..... | 97,563,432 | 129,679,398 | 234,709,102 | | 10,079,667 | 8,331,489 | | 21,389,219 | 79,745,375 | 110,088,848 | | 170,872,605 |
| Pipes, tubes and fittings..... | 59,679,685 | 59,290,410 | 123,088,298 | | 10,277,204 | 8,236,405 | | 17,621,886 | 43,965,490 | 33,585,513 | | 89,379,918 |
| Wire..... | 9,283,506 | 19,759,723 | 17,266,733 | | 3,388,903 | 4,024,694 | | 5,282,036 | 4,849,960 | 8,113,934 | | 9,058,739 |
| Chains..... | 3,423,969 | 4,622,270 | 5,619,874 | | 351,027 | 743,995 | | 947,089 | 2,700,943 | 3,538,158 | | 4,240,506 |

| | | | | | | | | | |
|---|---|---|---|--|---|--|--|---|--|
| Engines, Locomotives and Boilers— Engines, diesel and semi-diesel, and parts..... Engines, internal combustion, for motor trucks, motor buses, fire fighting vehicles, ambul- ances and hearses, and parts..... Engines, automobile and motor vehicle, and parts, <i>n.o.p.</i> Engines for aircraft, and parts..... Engines, locomotives and boilers, and parts, <i>n.o.p.</i> Totals, Engines, Locomotives and Boilers..... | 21,582,759 6,594,777 10,240,692 34,647,856 18,661,013 91,727,097 | 24,966,278 8,583,226 19,609,424 33,415,169 23,077,582 109,621,679 | 39,729,131 13,616,861 15,698,808 32,923,385 30,356,334 132,324,509 | 1,794,110 149,047 187,998 12,074,649 891,417 15,097,222 | 2,637,262 472,539 343,229 9,060,653 1,027,763 13,541,446 | 5,178,056 689,705 455,939 5,008,148 841,809 12,173,637 | 19,514,105 6,438,057 10,045,648 22,570,213 17,426,201 75,994,224 | 22,036,884 8,025,567 19,228,939 24,284,292 21,896,793 95,472,475 | 33,998,475 12,888,466 15,119,243 27,848,167 29,463,447 119,317,798 |
| Farm Implements and Machinery— Cream separators and other dairy machinery..... Harvesting machinery and implements, <i>n.o.p.</i> Ploughs, drills and other tillage and planting implements..... Harvesters combined with threshing machines, and parts..... Seed separation machinery, <i>n.o.p.</i> Spraying and dusting machines..... Tractors, internal combustion..... Parts of tractors, internal combustion, and accessories, including parts therefor..... Farm implements and machinery and parts, <i>n.o.p.</i> Totals, Farm Implements and Machinery..... | 5,254,381 6,719,139 11,005,641 17,435,823 2,416,744 34,647,796 28,164,682 16,390,092 143,163,284 | 5,229,991 7,500,847 9,061,030 14,886,474 2,128,936 2,713,284 37,702,449 22,119,024 178,247,550 | 6,118,662 9,044,564 8,927,010 15,222,762 2,922,570 108,999,669 50,626,426 29,533,118 232,148,405 | 295,513 60,812 82,262 29,452 4,540 4,201,010 165,687 353,000 5,192,276 | 119,003 45,340 78,536 58,482 5,927 2,885,095 353,827 352,354 3,898,564 | 343,212 50,130 91,095 73,556 25,238 2,197,935 618,336 328,796 3,728,298 | 4,319,054 6,600,675 10,892,899 17,353,897 1,129,056 2,366,712 27,968,644 15,952,710 136,760,243 | 4,475,391 7,378,035 8,967,594 14,803,911 1,382,466 2,675,083 37,310,739 21,707,426 173,116,797 | 4,836,812 8,896,707 8,823,604 15,110,500 1,533,644 2,088,977 49,895,678 29,015,768 226,730,592 |
| Hardware and Cutlery— Cutlery..... Nails, spikes and tacks..... Butts, hinges, bolts, nuts, washers, rivets and screws..... Hardware, <i>n.o.p.</i> Totals, Hardware and Cutlery..... | 3,636,364 1,174,704 7,633,644 3,928,897 16,373,609 | 4,124,711 1,244,778 9,958,982 5,448,035 20,776,506 | 4,758,153 2,141,910 11,786,081 5,958,096 24,644,240 | 1,263,771 326,305 845,872 740,819 3,176,767 | 1,147,680 307,245 750,111 906,936 3,111,972 | 1,044,583 389,487 1,244,140 1,063,092 3,721,302 | 1,044,643 500,640 6,113,364 2,866,125 10,524,772 | 1,354,782 494,136 8,373,197 4,225,261 14,447,376 | 1,582,773 565,185 9,425,132 4,518,112 16,091,202 |
| Machinery (except agricultural)— Sewing machines, washing machines, vacuum cleaners and other household machinery..... Ore crushers, rock drills, well-drilling and other mining and metallurgical machinery..... Office or business machinery..... Printing and bookbinding machinery..... Air and gas compressing machinery, <i>n.o.p.</i> Bakery machinery and apparatus..... Cranes, hoists and derricks, <i>n.o.p.</i> , and parts..... Ice-making and refrigerating machinery, <i>n.o.p.</i> Logging machinery..... Metal-working machinery..... Motion-picture projectors and other equipment for moving pictures..... | 16,670,825 53,724,064 9,183,939 22,766,702 6,136,292 2,879,289 8,116,743 4,693,061 6,107,489 50,130,729 3,631,129 | 20,283,284 68,723,752 92,335,087 25,595,468 5,115,116 9,592,195 6,040,566 7,206,791 14,401,860 46,410,942 2,810,581 | 25,258,954 113,436,264 1,674,181 27,036,223 13,954,759 3,380,628 15,263,905 7,981,267 19,791,653 54,162,930 2,761,704 | 2,285,490 1,087,431 1,877,431 1,763,685 1,976,658 147,435 825,775 155,270 21,045 4,737,004 204,485 | 1,830,324 2,076,180 2,232,329 1,544,058 1,322,520 129,139 614,769 134,632 15,438 3,978,293 86,152 | 2,253,531 4,749,361 3,610,427 1,800,463 654,016 111,818 1,180,580 173,904 231,676 5,813,182 47,438 | 12,197,984 50,751,186 18,372,455 19,578,148 5,315,332 2,697,937 7,686,016 4,492,267 9,053,323 41,597,590 3,378,264 | 15,853,665 64,970,563 18,432,907 22,080,270 7,344,076 2,425,168 6,994,749 6,035,018 14,439,692 38,989,287 2,629,568 | 19,620,236 105,759,676 24,535,447 23,220,355 12,932,038 3,225,598 13,500,691 7,768,672 19,392,099 42,901,184 2,560,553 |

14.—Principal Imports into Canada for Consumption from All Countries, the United Kingdom and the United States 1954-56—continued

| Item | All Countries | | | United Kingdom | | | United States | | |
|--|---------------|-------------|-------------|----------------|------------|------------|---------------|-------------|-------------|
| | 1954 | 1955 | 1956 | 1954 | 1955 | 1956 | 1954 | 1955 | 1956 |
| V. Iron and Its Products—concluded | | | | | | | | | |
| Machinery (except agricultural)—concluded | | | | | | | | | |
| Paper mill machines, <i>n.o.p.</i> | 5,336,706 | 7,330,843 | 12,843,018 | 1,184,575 | 1,486,697 | 1,187,054 | 4,030,701 | 5,709,029 | 11,351,068 |
| Pumps, power, <i>n.o.p.</i> | 8,423,698 | 9,446,918 | 12,359,863 | 577,569 | 568,873 | 587,357 | 7,717,864 | 8,767,312 | 11,382,816 |
| Concrete road-paving machines and other equipment for road-paving..... | 3,805,314 | 6,934,922 | 8,440,354 | 33,500 | 212,257 | 130,110 | 3,769,024 | 6,701,944 | 8,249,223 |
| Sand cast rolls and chilled cast iron rolls; and forged steel rolls..... | 2,946,337 | 3,098,585 | 4,683,307 | 303,324 | 354,056 | 618,637 | 2,639,433 | 2,744,285 | 4,061,465 |
| Shovels, power, and parts..... | 12,026,174 | 22,196,840 | 34,266,031 | 502,298 | 732,699 | 287,618 | 11,390,477 | 21,302,031 | 32,860,530 |
| Yarn, cordage and fabric machinery..... | 11,787,013 | 14,958,532 | 20,078,371 | 2,430,249 | 1,885,991 | 2,652,870 | 8,864,927 | 12,635,700 | 16,584,945 |
| Air conditioning apparatus..... | 8,203,049 | 7,875,672 | 15,757,869 | 234,672 | 197,676 | 330,864 | 7,951,515 | 12,800,314 | 15,242,485 |
| Buildings, earthmovers and parts..... | 9,513,800 | 14,193,067 | 20,919,477 | 183,399 | 206,834 | 439,742 | 9,291,515 | 13,800,307 | 20,471,500 |
| Conveying equipment and parts..... | 6,079,062 | 6,834,194 | 11,511,580 | 543,101 | 663,218 | 535,903 | 5,301,052 | 5,481,049 | 10,871,074 |
| Woodworking machinery, <i>n.o.p.</i> , and parts..... | 3,978,562 | 5,282,652 | 5,988,331 | 359,323 | 446,084 | 544,263 | 3,308,575 | 4,481,989 | 4,964,834 |
| Machinery and parts, <i>n.o.p.</i> | 111,108,601 | 122,247,451 | 167,809,547 | 15,563,279 | 10,363,514 | 10,645,686 | 91,645,883 | 107,924,310 | 150,368,855 |
| Totals, Machinery (except agricultural)..... | 380,219,299 | 445,875,328 | 628,520,977 | 35,112,748 | 30,198,733 | 39,894,315 | 328,431,465 | 397,630,903 | 561,795,340 |
| Stamped and coated products..... | 12,009,452 | 14,083,308 | 14,140,452 | 411,923 | 542,979 | 420,200 | 11,127,279 | 13,079,019 | 13,248,586 |
| Tools and hand implements..... | 23,598,533 | 26,739,006 | 32,778,745 | 2,423,571 | 2,687,480 | 3,754,791 | 18,819,270 | 21,046,347 | 23,155,770 |
| Vehicles (see also Miscellaneous Commodities)— | | | | | | | | | |
| Automobiles, freight, new..... | 15,134,491 | 30,441,933 | 45,846,338 | 400,097 | 622,364 | 756,335 | 14,171,251 | 28,634,676 | 43,389,036 |
| Automobiles, passenger, new..... | 60,846,411 | 83,725,656 | 125,539,468 | 17,089,234 | 15,109,274 | 23,281,660 | 41,286,345 | 63,547,805 | 88,153,676 |
| Automobile parts..... | 180,433,400 | 246,505,302 | 284,787,685 | 3,098,654 | 3,019,957 | 3,322,562 | 177,170,641 | 243,152,021 | 280,248,407 |
| Factory and warehouse trucks, motor driven, parts..... | 7,518,735 | 10,304,704 | 4,649,734 | 372,553 | 230,868 | 82,859 | 7,112,728 | 10,071,207 | 4,555,032 |
| Fort life trucks and parts..... | — | — | 10,556,520 | — | — | 206,576 | — | 10,251,020 | — |
| Railway cars and parts..... | 37,037,696 | 16,552,738 | 12,342,728 | 2,997,070 | 264,751 | 2,368,772 | 34,015,173 | 16,287,694 | 9,954,717 |
| Vehicles and parts, <i>n.o.p.</i> | 7,682,090 | 6,890,413 | 10,190,862 | 4,487,044 | 3,334,648 | 4,477,197 | 2,665,572 | 3,185,311 | 5,251,515 |
| Totals, Vehicles (see also Miscellaneous Commodities)..... | 308,652,823 | 394,420,446 | 493,913,335 | 28,444,652 | 22,671,859 | 34,788,961 | 276,421,710 | 364,878,714 | 441,807,812 |
| Ball and roller bearings and parts..... | 12,193,148 | 14,977,828 | 20,238,840 | 879,945 | 1,165,524 | 1,200,475 | 9,916,479 | 11,793,461 | 16,114,194 |
| Bottles, cylinders, drums, barrels and tanks..... | 3,356,475 | 3,967,219 | 6,214,343 | 315,093 | 366,374 | 525,545 | 3,010,183 | 3,551,775 | 5,669,382 |
| Furniture of metal..... | 6,298,742 | 7,669,325 | 9,106,210 | 334,630 | 259,689 | 382,390 | 5,940,467 | 7,292,258 | 8,010,248 |
| Guns, rifles and other firearms..... | 3,232,631 | 4,411,732 | 6,721,510 | 752,416 | 246,283 | 697,451 | 4,102,442 | 3,797,930 | 4,297,711 |
| Scales, balances and strength-testing machines..... | 2,619,793 | 3,574,807 | 4,264,962 | 88,688 | 100,641 | 178,123 | 2,424,976 | 3,206,254 | 3,845,665 |
| Stoves and other heating and cooking apparatus for electricity, gas, oil, coal, wood or other fuel, and parts..... | 31,556,506 | 36,323,988 | 41,717,101 | 519,248 | 730,772 | 550,384 | 30,787,444 | 35,463,438 | 41,011,841 |

| | | | | | | | | | |
|---|----------------------|----------------------|----------------------|--------------------|--------------------|--------------------|----------------------|----------------------|----------------------|
| Valves, iron..... | 7,888,348 | 7,779,693 | 12,658,655 | 305,411 | 440,465 | 586,797 | 7,366,751 | 7,291,698 | 11,814,084 |
| Other iron and steel and manufactures of..... | 69,951,447 | 73,839,793 | 91,437,117 | 6,738,371 | 6,262,717 | 8,726,631 | 61,240,126 | 65,987,442 | 79,995,394 |
| Totals, Iron and Its Products..... | 1,322,497,387 | 1,605,967,680 | 2,321,354,360 | 129,595,260 | 111,992,672 | 162,938,833 | 1,143,657,627 | 1,432,479,175 | 1,939,666,457 |
| VI. Non-ferrous Metals and Their Products (except gold) | | | | | | | | | |
| Aluminium— | | | | | | | | | |
| Bauxite and alumina..... | 20,400,990 | 25,214,769 | 29,182,829 | 5,304 | 8,821 | 5,071 | 1,330,003 | 1,235,555 | 1,228,798 |
| Aluminium, and manufactures of, <i>n.o.p.</i> | 17,112,888 | 20,722,079 | 37,314,617 | 3,692,939 | 3,568,140 | 10,098,653 | 12,379,771 | 15,862,412 | 22,560,580 |
| Totals, Aluminium..... | 37,513,878 | 45,936,848 | 66,497,446 | 3,698,243 | 3,576,961 | 10,043,724 | 13,709,774 | 17,097,967 | 23,789,378 |
| Brass— | | | | | | | | | |
| Brass valves..... | 3,455,200 | 4,027,519 | 4,811,208 | 106,293 | 143,737 | 66,514 | 3,196,469 | 3,637,964 | 4,406,885 |
| Brass, and manufactures of, <i>n.o.p.</i> | 14,637,153 | 15,181,707 | 18,547,988 | 1,328,134 | 1,223,777 | 1,919,692 | 12,900,834 | 13,381,911 | 15,746,612 |
| Totals, Brass..... | 18,092,353 | 19,209,226 | 23,359,196 | 1,434,427 | 1,367,514 | 1,986,206 | 16,097,303 | 17,019,875 | 20,153,497 |
| Copper, and manufactures of..... | | | | | | | | | |
| Nickel, and manufactures of..... | 4,319,816 | 5,196,015 | 12,425,965 | 930,001 | 638,510 | 1,779,986 | 2,427,596 | 4,492,102 | 8,543,221 |
| | 4,955,121 | 5,662,014 | 6,746,447 | 323,620 | 320,435 | 283,285 | 4,221,253 | 4,902,892 | 6,063,674 |
| Precious Metals— | | | | | | | | | |
| Electro-plated ware..... | 13,076,079 | 15,543,409 | 16,927,199 | 877,536 | 1,039,161 | 1,223,430 | 11,308,441 | 12,863,412 | 13,560,729 |
| Platinum crucibles and other manufactures of platinum..... | 18,904,571 | 16,865,183 | 21,347,035 | 17,537,757 | 15,519,547 | 19,139,549 | 1,302,077 | 1,342,379 | 1,914,056 |
| Precious metals, and manufactures of, <i>n.o.p.</i> | 1,017,573 | 1,128,290 | 2,003,373 | 502,914 | 501,084 | 535,371 | 421,427 | 530,254 | 1,317,027 |
| Totals, Precious Metals..... | 32,998,223 | 33,536,882 | 40,277,607 | 18,918,207 | 17,059,792 | 20,898,350 | 13,031,945 | 14,726,045 | 16,791,812 |
| Tin, blocks, pigs, bars or granular form..... | | | | | | | | | |
| Zinc, and manufactures of..... | 7,441,782 | 8,813,544 | 8,194,367 | 817,561 | 1,238,199 | 936,951 | 1,364,728 | 1,824,042 | 806,840 |
| Alloys, <i>n.o.p.</i> | 2,768,168 | 3,398,849 | 3,744,010 | 82,876 | 89,678 | 167,908 | 2,543,943 | 3,036,395 | 3,349,960 |
| Clocks and watches and parts..... | 1,279,748 | 2,128,580 | 2,799,896 | 427,776 | 732,708 | 1,033,886 | 746,651 | 1,162,118 | 1,522,763 |
| | 10,655,227 | 10,843,749 | 12,724,277 | 168,247 | 369,806 | 401,252 | 2,938,727 | 2,851,391 | 2,989,036 |
| Electrical Apparatus, <i>n.o.p.</i>— | | | | | | | | | |
| Batteries..... | 2,788,088 | 3,090,472 | 2,974,981 | 263,395 | 155,189 | 293,665 | 2,498,515 | 2,889,715 | 2,606,574 |
| Dynamos or generators, and parts, <i>n.o.p.</i> | 9,351,418 | 10,225,155 | 15,629,989 | 916,582 | 1,994,850 | 2,783,577 | 7,856,224 | 7,743,027 | 12,593,018 |
| Electric lamps, metal filament..... | 1,777,558 | 2,734,193 | 2,659,064 | 52,679 | 28,915 | 1,581,451 | 1,582,450 | 2,378,764 | 2,328,008 |
| Electric motors..... | 12,225,204 | 13,182,484 | 20,308,042 | 1,961,577 | 1,846,402 | 2,705,056 | 9,923,405 | 10,839,568 | 17,227,633 |
| Telephone apparatus..... | 10,514,153 | 12,222,128 | 16,477,431 | 1,847,642 | 1,889,302 | 2,208,437 | 8,536,329 | 10,189,435 | 14,124,150 |
| Radio tubes..... | 8,803,019 | 12,633,787 | 8,894,567 | 206,061 | 105,053 | 91,628 | 8,476,038 | 12,323,826 | 8,479,633 |
| Radio and television sets..... | 3,001,601 | 1,818,641 | 2,958,572 | 47,141 | 36,410 | 97,138 | 2,927,723 | 1,697,122 | 2,399,538 |
| Radio and wireless apparatus, <i>n.o.p.</i> | 74,287,349 | 76,173,148 | 58,843,263 | 5,110,320 | 5,424,275 | 6,433,228 | 68,465,369 | 69,936,208 | 51,350,669 |
| Other electrical apparatus, <i>n.o.p.</i> | 84,790,877 | 94,635,025 | 128,546,560 | 8,237,582 | 9,461,024 | 13,302,152 | 72,914,603 | 80,573,588 | 108,737,026 |
| Totals, Electrical Apparatus, <i>n.o.p.</i>..... | 207,539,267 | 226,715,033 | 257,292,489 | 18,546,979 | 20,941,420 | 28,113,332 | 183,180,656 | 198,671,253 | 219,846,269 |

14.—Principal Imports into Canada for Consumption from All Countries, the United Kingdom and the United States 1954-56—continued

| Item | All Countries | | | United Kingdom | | | United States | | |
|--|--------------------|--------------------|--------------------|-------------------|-------------------|-------------------|--------------------|--------------------|--------------------|
| | 1954 | 1955 | 1956 | 1954 | 1955 | 1956 | 1954 | 1955 | 1956 |
| | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| VI. Non-ferrous Metals and Their Products (except gold)—concluded | | | | | | | | | |
| Gas apparatus..... | 833,827 | 1,136,782 | 2,139,874 | 65,297 | 159,733 | 245,716 | 751,368 | 942,943 | 1,822,456 |
| Stereotypes, electrotypes and other printing materials..... | 2,348,133 | 2,207,896 | 2,261,230 | 68,094 | 50,747 | 53,074 | 2,257,810 | 2,124,781 | 2,173,719 |
| Chrome ore and ores of metals, <i>n.o.p.</i> | 2,425,853 | 1,883,684 | 3,896,518 | 1,187 | 2,943 | 3,161 | 184,207 | 517,265 | 1,286,197 |
| Manganese ore..... | 2,277,043 | 7,338,269 | 9,137,278 | 14,123 | 15,338 | 25,592 | 1,590,348 | 1,948,055 | 4,105,351 |
| Buckles, clasps, eyelets, hooks and eyes, dome, snap or other fasteners, of metal, coated or not, <i>n.o.p.</i> (not being jewellery); slide, hookless, or zipper fasteners..... | 1,226,560 | 1,434,152 | 1,829,797 | 99,393 | 93,916 | 126,142 | 1,102,921 | 1,291,442 | 1,618,069 |
| Articles, <i>n.o.p.</i> , of metal, not made in Canada, for the construction or equipment of ships.... | 6,598,991 | 5,445,397 | 6,849,469 | 1,593,804 | 1,513,551 | 2,202,555 | 4,956,169 | 3,878,052 | 4,486,005 |
| Other non-ferrous metals, and manufactures of.... | 13,911,154 | 17,905,993 | 31,362,751 | 1,710,942 | 2,078,236 | 4,455,603 | 10,614,249 | 12,550,868 | 23,841,885 |
| Totals, Non-ferrous Metals and Their Products..... | 337,185,144 | 398,792,913 | 491,538,617 | 48,997,777 | 50,839,487 | 72,756,723 | 261,719,648 | 289,037,396 | 343,180,131 |
| VII. Non-metallic Minerals and Their Products (except chemicals) | | | | | | | | | |
| Asbestos, and manufactures of..... | 3,539,132 | 4,053,832 | 5,383,635 | 507,980 | 610,779 | 1,377,428 | 2,966,700 | 3,334,001 | 3,731,323 |
| Clay and Manufactures of— | | | | | | | | | |
| Clays..... | 3,567,597 | 4,479,827 | 5,253,300 | 567,355 | 734,560 | 735,108 | 2,992,757 | 3,741,076 | 4,499,997 |
| Bricks and tiles..... | 12,685,968 | 17,188,113 | 21,789,090 | 1,082,001 | 1,331,591 | 1,585,214 | 11,053,348 | 14,922,190 | 19,124,283 |
| Pottery and chinaware..... | 14,899,857 | 15,649,406 | 16,296,972 | 11,295,408 | 11,322,980 | 11,737,127 | 2,097,684 | 2,488,684 | 2,507,211 |
| Clay manufactures, <i>n.o.p.</i> | 5,526,162 | 6,780,737 | 9,256,700 | 938,133 | 1,224,032 | 1,941,377 | 4,451,570 | 5,335,100 | 6,823,668 |
| Totals, Clay and Manufactures of..... | 36,679,584 | 43,998,083 | 52,596,062 | 13,832,927 | 14,613,163 | 15,998,826 | 20,595,539 | 26,487,650 | 32,955,159 |
| Coal, anthracite..... | 33,163,183 | 30,190,088 | 30,060,480 | 3,602,865 | 3,689,741 | 2,404,487 | 29,554,234 | 26,500,347 | 27,655,993 |
| Coal, bituminous, and coal, <i>n.o.p.</i> | 71,632,015 | 76,360,834 | 98,676,190 | — | 13,721 | 987 | 71,631,679 | 76,346,943 | 98,675,203 |
| Briquettes..... | 1,583,610 | 1,536,347 | 1,581,699 | — | — | — | 1,583,610 | 1,536,347 | 1,581,699 |
| Coke..... | 8,733,783 | 11,409,969 | 13,201,239 | 4,833 | 3,280 | 956 | 8,715,152 | 11,406,689 | 13,200,283 |
| Coal products, <i>n.o.p.</i> | 3,589,331 | 4,050,070 | 4,333,575 | 856,453 | 1,039,744 | 735,120 | 2,672,701 | 2,777,808 | 2,982,066 |
| Glass— | | | | | | | | | |
| Tableware, bottles, flasks, lampbulbs, and other glass, cut, pressed or blown..... | 14,918,367 | 17,804,856 | 20,141,358 | 1,205,853 | 1,270,633 | 1,718,658 | 12,759,084 | 15,276,255 | 16,669,840 |

| | | | | | | | | | |
|---|-------------------------|-------------------------|-------------------------|----------------------|----------------------|----------------------|------------------------|------------------------|------------------------|
| Plate, sheet and common, colourless window glass, <i>n.o.p.</i> | 12,235,578 6,801,991 | 18,177,098 8,133,899 | 21,618,252 9,444,017 | 3,306,223 486,671 | 4,783,817 615,253 | 5,692,266 760,633 | 5,219,978 5,243,146 | 7,935,768 6,171,759 | 7,834,769 6,692,677 |
| Totals, Glass..... | 33,955,936 | 44,115,763 | 51,233,637 | 4,998,747 | 6,669,703 | 8,171,557 | 23,222,208 | 29,383,782 | 31,297,286 |
| Petroleum and Products— | | | | | | | | | |
| Petroleum, crude..... | 213,391,303 | 230,159,135 | 271,571,304 | — | — | — | 28,692,577 | 22,825,527 | 18,901,328 |
| Fuel oil, <i>n.o.p.</i> | 70,547,210 | 77,675,611 | 81,692,986 | 25,426 | 6,233 | 3,266 | 49,224,213 | 42,854,738 | 43,125,056 |
| Kerosene, <i>n.o.p.</i> | 2,110,789 | 1,437,002 | 2,339,654 | — | — | — | 1,649,327 | 1,019,489 | 1,734,724 |
| Gasoline..... | 34,541,363 | 33,819,139 | 35,207,007 | — | — | — | 24,896,958 | 24,295,788 | 22,806,142 |
| Lubricating oils..... | 8,963,505 | 11,487,666 | 13,006,148 | 33,807 | 72,815 | 88,013 | 8,820,513 | 11,368,882 | 12,871,490 |
| Petroleum greases and lubricating greases, <i>n.o.p.</i> | 1,547,172 | 1,639,918 | 2,098,418 | 6,702 | 7,404 | 8,064 | 1,518,052 | 1,913,106 | 2,076,941 |
| Paraffin wax..... | 2,109,685 | 2,659,313 | 2,890,954 | — | 410 | — | 1,794,049 | 2,299,221 | 2,553,334 |
| Petroleum products, <i>n.o.p.</i> | 11,846,351 | 12,390,767 | 14,702,654 | 19,871 | 30,170 | 28,285 | 11,582,736 | 11,753,659 | 13,748,012 |
| Totals, Petroleum and Products..... | 344,987,390 | 373,568,581 | 423,409,125 | 85,806 | 117,032 | 128,228 | 128,378,425 | 118,330,420 | 117,817,027 |
| Stone— | | | | | | | | | |
| Diamond dust and other abrasives..... | 11,630,199 | 14,939,208 | 18,254,510 | 620,695 | 1,399,752 | 2,019,486 | 10,155,015 | 12,014,695 | 13,683,862 |
| Building and paving stone..... | 1,376,569 | 1,300,071 | 1,251,894 | 8,451 | 2,007 | 10,714 | 851,418 | 836,532 | 850,905 |
| Lime, plaster and cement..... | 7,508,782 | 9,036,500 | 10,758,729 | 2,109,465 | 2,102,630 | 1,269,258 | 3,271,940 | 4,091,132 | 4,066,217 |
| Phosphate rock..... | 4,577,658 | 5,512,823 | 5,185,587 | — | 593 | — | 4,192,358 | 4,232,914 | 4,863,774 |
| Silica sand..... | 1,883,988 | 2,146,088 | 2,597,302 | — | 668 | — | 1,854,174 | 2,113,042 | 2,594,632 |
| Roofing granules..... | 1,819,403 | 2,117,234 | 1,961,971 | — | — | — | 1,849,403 | 2,171,234 | 1,961,971 |
| Stone and manufactures of, <i>n.o.p.</i> | 4,614,920 | 5,327,737 | 6,771,241 | 247,050 | 219,278 | 264,523 | 2,808,915 | 3,519,930 | 4,251,195 |
| Totals, Stone..... | 33,441,514 | 40,334,571 | 46,781,244 | 2,986,329 | 3,724,260 | 3,563,981 | 24,986,223 | 28,979,479 | 32,272,886 |
| Diamonds, unset..... | | | | | | | | | |
| Gas for heating, cooking or illuminating, imported by pipeline..... | 7,262,840 | 9,227,293 | 8,920,940 | 1,085,055 | 1,064,775 | 1,139,093 | 1,364,631 | 2,375,738 | 1,196,686 |
| Salt..... | 2,028,647 | 2,698,272 | 3,479,610 | — | — | — | 2,028,647 | 2,698,272 | 3,479,610 |
| Sulphur and brimstone..... | 2,151,428 | 1,833,850 | 1,605,746 | 153,187 | 94,972 | 36,115 | 1,692,709 | 1,484,593 | 1,244,033 |
| Other non-metallic minerals and manufactures of..... | 7,816,301 | 9,386,983 | 11,887,556 | 345,283 | 367,642 | 455,046 | 7,816,301 | 9,386,983 | 11,831,667 |
| Totals, Non-metallic Minerals and Their Products..... | 8,651,317 | 10,869,547 | 12,830,234 | — | — | — | 7,404,081 | 9,320,504 | 10,697,489 |
| Totals, Non-metallic Minerals and Their Products..... | 599,216,011 | 683,684,083 | 765,970,972 | 28,459,801 | 32,008,812 | 34,011,962 | 334,612,840 | 359,549,856 | 390,618,410 |
| VIII. Chemicals and Allied Products | | | | | | | | | |
| Acids..... | 6,008,969 | 6,997,353 | 7,340,309 | 674,171 | 868,224 | 1,059,525 | 4,695,301 | 5,551,075 | 5,438,936 |
| Alcohols, industrial..... | 1,632,285 | 1,234,207 | 1,402,718 | 123 | 845 | 1,200 | 1,629,676 | 957,637 | 1,395,520 |
| Drugs, medicinal and pharmaceutical preparations..... | 24,980,747 | 24,599,475 | 26,121,062 | 2,218,480 | 2,171,544 | 2,248,959 | 21,173,284 | 20,485,853 | 22,000,424 |
| Dyeing and Tanning Materials— | | | | | | | | | |
| Coal-tar products..... | 7,348,695 | 9,117,857 | 8,704,464 | 961,450 | 1,212,991 | 1,297,962 | 4,610,713 | 5,586,152 | 5,275,983 |
| Dyeing and tanning materials, <i>n.o.p.</i> | 3,021,254 | 3,528,287 | 3,836,318 | 411,616 | 575,167 | 472,756 | 1,262,650 | 1,419,302 | 1,590,780 |
| Totals, Dyeing and Tanning Materials..... | 10,369,949 | 12,646,144 | 12,540,782 | 1,373,066 | 1,788,158 | 1,770,718 | 5,873,363 | 7,005,454 | 6,866,763 |

14.—Principal Imports into Canada for Consumption from All Countries, the United Kingdom and the United States 1954-56 — continued

| Item | All Countries | | | United Kingdom | | | United States | | |
|---|--------------------|--------------------|--------------------|-------------------|-------------------|-------------------|--------------------|--------------------|--------------------|
| | 1954 | 1955 | 1956 | 1954 | 1955 | 1956 | 1954 | 1955 | 1956 |
| VIII. Chemicals and Allied Products — concluded | | | | | | | | | |
| Explosives..... | 2,284,557 | 2,011,468 | 1,372,258 | 191,478 | 243,430 | 170,384 | 1,967,433 | 1,632,361 | 1,046,553 |
| Fertilizers..... | 11,900,069 | 12,695,260 | 13,285,248 | 35,301 | 43,608 | 34,706 | 10,153,631 | 10,805,563 | 11,460,584 |
| Pigments, Paints and Varnishes— Chemical and mineral earth pigments..... | 16,454,732 | 18,969,322 | 20,516,977 | 4,323,190 | 4,878,988 | 4,860,841 | 11,991,254 | 13,845,967 | 15,357,547 |
| Paints and varnishes, <i>n.o.p.</i> | 3,665,451 | 4,266,222 | 4,980,414 | 363,922 | 403,086 | 472,576 | 3,263,752 | 3,803,287 | 4,443,168 |
| Totals, Pigments, Paints and Varnishes.... | 20,120,183 | 23,235,544 | 25,497,391 | 4,687,112 | 5,282,074 | 5,333,417 | 15,255,006 | 17,649,254 | 19,800,713 |
| Perfumery, cosmetics and toilet preparations.... | 1,610,569 | 1,504,113 | 1,809,188 | 97,427 | 119,664 | 161,358 | 1,173,933 | 912,281 | 1,068,137 |
| Soap..... | 1,159,687 | 1,501,585 | 1,951,342 | 103,505 | 114,032 | 165,908 | 1,014,389 | 1,347,458 | 1,737,808 |
| Inorganic Chemicals, <i>n.o.p.</i> — | | | | | | | | | |
| Ammonia and its compounds..... | 2,707,971 | 2,501,916 | 1,932,912 | 75,384 | 57,947 | 58,839 | 2,599,350 | 2,410,505 | 1,835,264 |
| Compounds of bismuth and lead..... | 11,325,464 | 12,826,781 | 13,474,596 | 56,380 | 85,834 | 84,344 | 11,469,084 | 12,739,728 | 13,389,557 |
| Compounds of bromine, chlorine and iodine.... | 1,964,801 | 2,332,232 | 2,109,682 | 3,575 | 3,586 | 2,766 | 1,867,728 | 2,302,807 | 2,081,413 |
| Compounds of calcium..... | 1,102,409 | 1,499,216 | 2,170,599 | 109,226 | 121,858 | 126,647 | 1,958,667 | 1,326,429 | 1,971,959 |
| Soda and sodium compounds, <i>n.o.p.</i> | 4,281,484 | 17,141,688 | 17,730,955 | 2,857,870 | 3,189,341 | 2,903,064 | 10,655,917 | 12,980,748 | 14,168,711 |
| Other inorganic chemicals, <i>n.o.p.</i> | 3,598,045 | 4,666,347 | 4,945,381 | 950,950 | 1,328,038 | 1,155,830 | 2,091,116 | 2,993,055 | 3,427,515 |
| Totals, Inorganic Chemicals, <i>n.o.p.</i> | 34,980,174 | 40,968,180 | 42,384,125 | 4,053,385 | 4,786,574 | 4,331,490 | 29,641,862 | 34,753,272 | 36,874,419 |
| Chemicals and Allied Products, <i>n.o.p.</i> — | | | | | | | | | |
| Glycerine..... | 1,076,633 | 1,816,523 | 1,413,285 | — | — | — | 1,076,633 | 1,472,479 | 1,413,285 |
| Ink, printing, writing and rotogravure..... | 1,175,831 | 1,367,811 | 1,454,365 | — | — | — | 952,971 | 1,107,846 | 1,141,880 |
| Etching..... | 1,314,323 | 2,889,877 | 5,256,417 | 210,003 | 230,007 | 198,113 | 1,314,328 | 2,889,877 | 5,299,447 |
| Cellulose..... | 4,593,832 | 7,512,600 | 6,828,065 | 35,893 | 53,103 | 17,192 | 4,031,404 | 6,839,584 | 8,767,061 |
| Chemicals for synthetic resins..... | 47,967,183 | 56,769,147 | 66,050,157 | 1,634,893 | 1,721,282 | 2,046,784 | 45,947,047 | 54,032,590 | 62,943,711 |
| Plastics and products..... | 49,318,005 | 62,719,526 | 70,956,151 | 3,276,009 | 5,202,960 | 5,099,296 | 44,588,535 | 55,139,473 | 63,113,028 |
| Other chemicals and allied products, <i>n.o.p.</i> | | | | | | | | | |
| Totals, Chemicals and Allied Products, <i>n.o.p.</i> | 105,360,830 | 133,105,394 | 154,909,028 | 5,156,398 | 7,207,332 | 7,361,385 | 97,910,978 | 121,491,849 | 142,675,412 |
| Totals, Chemicals and Allied Products..... | 220,406,019 | 260,498,723 | 288,556,441 | 18,590,446 | 22,625,505 | 22,639,050 | 190,488,856 | 222,612,057 | 250,365,269 |
| IX. Miscellaneous Commodities | | | | | | | | | |
| Amusement and Sporting Goods, <i>n.o.p.</i> — | | | | | | | | | |
| Bagatelle and other game tables and boards.... | 1,687,917 | 852,407 | 1,119,384 | 104,650 | 88,430 | 102,505 | 1,558,577 | 750,548 | 1,000,234 |
| Dolls and toys..... | 9,293,133 | 10,080,709 | 11,141,018 | 1,835,061 | 1,989,812 | 1,769,568 | 4,912,641 | 4,876,662 | 5,199,928 |
| Films..... | 8,850,583 | 10,835,975 | 12,109,210 | 568,728 | 741,852 | 1,141,433 | 7,189,749 | 9,279,913 | 9,858,329 |

| | | | | | | | | | |
|--|-------------|-------------|-------------|-----------|------------|-----------|-------------|-------------|------------|
| Sportmen's fishing rods and tackle, <i>n.o.p.</i> | 3,081,052 | 3,589,664 | 4,099,711 | 331,147 | 296,739 | 266,551 | 2,344,868 | 2,714,104 | 2,938,958 |
| Other amusement and sporting goods, <i>n.o.p.</i> | 825,487 | 715,628 | 701,000 | 148,585 | 141,907 | 159,036 | 427,465 | 533,515 | 496,683 |
| Totals, Amusement and Sporting Goods, <i>n.o.p.</i> | 23,538,172 | 26,074,383 | 29,170,323 | 2,988,171 | 3,258,740 | 3,439,133 | 16,433,300 | 18,154,372 | 19,494,132 |
| Brushes of all kinds..... | 1,494,902 | 1,575,647 | 1,900,569 | 500,901 | 482,495 | 604,604 | 804,785 | 858,542 | 961,384 |
| Household and Personal Equipment, <i>n.o.p.</i> — | 8,777,640 | 7,599,018 | 10,743,832 | 2,613,648 | 2,680,057 | 4,027,009 | 3,810,655 | 1,863,277 | 2,382,494 |
| Boots, shoes and slippers (except rubber and leather)..... | 1,311,704 | 1,419,982 | 1,302,941 | 262,688 | 260,302 | 230,907 | 638,457 | 485,631 | 418,643 |
| Buttons of all kinds..... | 1,833,965 | 1,428,747 | 1,653,882 | 49,146 | 37,306 | 53,206 | 972,276 | 1,054,886 | 1,218,132 |
| Cases, boxes and writing desks, fancy..... | 2,234,417 | 2,523,331 | 2,702,779 | 369,287 | 340,715 | 356,505 | 1,516,336 | 1,734,043 | 1,871,557 |
| Ear-telephone sets and appliances for deaf persons, and parts; electronic ear-training apparatus and parts thereof designed for use by, or for the training of, the deaf..... | 1,743,414 | 1,745,620 | 2,117,621 | 10,650 | 7,904 | 6,690 | 1,726,703 | 1,724,170 | 2,099,216 |
| Jewellery, <i>n.o.p.</i> | 4,843,271 | 5,511,263 | 5,802,952 | 208,285 | 229,827 | 237,450 | 3,152,132 | 3,399,906 | 3,449,044 |
| Pocketbooks, portfolios, purses, reticules, card cases, fly books, and musical instrument cases and parts..... | 3,249,524 | 3,936,627 | 4,737,545 | 552,548 | 626,286 | 662,863 | 2,052,024 | 2,505,046 | 2,943,808 |
| Refrigerators, electric and other, and parts..... | 38,863,199 | 43,934,819 | 44,622,419 | 455,273 | 908,582 | 916,801 | 38,395,713 | 43,024,398 | 43,682,719 |
| Spectacle and eye-glass frames, and parts for..... | 2,657,995 | 2,942,919 | 3,386,976 | 15,972 | 11,581 | 19,071 | 2,442,572 | 2,713,923 | 3,090,164 |
| Trunks, valises, hat boxes, carpet bags and tool bags..... | 990,560 | 1,366,962 | 1,863,166 | 287,393 | 310,941 | 317,101 | 593,425 | 962,035 | 1,416,776 |
| Other household and personal equipment, <i>n.o.p.</i> | 2,912,204 | 3,195,062 | 3,697,670 | 571,637 | 597,889 | 836,044 | 1,782,169 | 1,869,148 | 1,883,409 |
| Totals, Household and Personal Equipment, <i>n.o.p.</i> | 60,190,253 | 68,005,332 | 71,887,651 | 2,812,879 | 3,331,333 | 3,636,638 | 53,270,407 | 59,473,186 | 62,074,068 |
| Musical instruments and parts..... | 7,015,565 | 7,501,729 | 8,850,759 | 911,823 | 746,757 | 819,510 | 4,837,619 | 5,308,618 | 6,337,670 |
| Scientific and Educational Equipment— | | | | | | | | | |
| Cameras and parts..... | 4,237,822 | 5,393,538 | 138,467 | 41,564 | 38,547 | 33,531 | 2,503,024 | 3,528,024 | 3,400,900 |
| Surgical and dental instruments..... | 9,524,654 | 10,031,414 | 10,660,582 | 337,323 | 387,547 | 478,685 | 8,166,788 | 8,580,093 | 9,030,708 |
| Optical, philosophical and mathematical instru- ments, <i>n.o.p.</i> and parts..... | 4,325,890 | 4,261,421 | 5,458,413 | 331,688 | 356,634 | 500,086 | 3,260,524 | 3,049,889 | 3,756,107 |
| Other scientific and educational equipment, <i>n.o.p.</i> | 14,510,214 | 16,185,751 | 21,269,561 | 644,645 | 779,293 | 1,239,133 | 13,195,768 | 14,471,597 | 18,589,908 |
| Totals, Scientific and Educational Equip- ment..... | 32,618,580 | 36,291,744 | 43,782,094 | 1,512,123 | 1,559,038 | 2,251,435 | 27,125,104 | 29,630,507 | 34,777,623 |
| Ships and vessels..... | 2,437,229 | 4,943,884 | 3,294,955 | 176,179 | 461,256 | 286,970 | 2,120,343 | 3,963,825 | 2,414,398 |
| Vehicles, <i>n.o.p.</i> (see also Iron)— | | | | | | | | | |
| Aircraft and parts, excluding engines and parts..... | 100,397,031 | 138,091,289 | 91,303,918 | 4,736,060 | 13,129,655 | 6,810,659 | 95,576,483 | 124,583,389 | 84,183,674 |
| Other vehicles, <i>n.o.p.</i> | 7,485,420 | 9,199,705 | 15,621,215 | 295,597 | 117,116 | 138,097 | 7,117,084 | 9,048,082 | 13,452,711 |
| Totals, Vehicles, <i>n.o.p.</i> | 107,882,451 | 147,290,994 | 106,925,133 | 5,031,657 | 13,246,771 | 6,948,756 | 102,693,567 | 133,631,471 | 99,616,385 |

14.—Principal Imports into Canada for Consumption from All Countries, the United Kingdom and the United States 1954-56—concluded

| Item | All Countries | | | United Kingdom | | | United States | | |
|--|----------------------|----------------------|----------------------|--------------------|--------------------|--------------------|----------------------|----------------------|----------------------|
| | 1954 | 1955 | 1956 | 1954 | 1955 | 1956 | 1954 | 1955 | 1956 |
| | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| IX. Miscellaneous Commodities—concluded | | | | | | | | | |
| Painting, statues and other works of art..... | 3,306,327 | 3,674,721 | 5,633,307 | 693,421 | 934,022 | 1,754,010 | 1,682,224 | 1,655,530 | 2,481,269 |
| Articles for representatives of other countries..... | 1,192,900 | 1,283,352 | 1,252,695 | 111,077 | 103,314 | 128,679 | 744,814 | 701,604 | 721,911 |
| Goods returned within five years after having been exported..... | 9,503,386 | 10,460,554 | 10,052,436 | 1,093,056 | 586,202 | 339,234 | 7,360,746 | 8,672,760 | 9,179,949 |
| Arms and other goods for British Commonwealth or NATO countries..... | 25,006,411 | 45,362,801 | 49,303,504 | 4,109,484 | 2,255,593 | 1,952,143 | 17,395,396 | 41,541,613 | 45,232,100 |
| Goods admitted free by Order in Council, <i>n.o.p.</i> | 18,291,403 | 2,137,262 | 804,693 | 703,532 | 158,513 | 40,608 | 16,989,656 | 1,941,805 | 713,790 |
| Incidental purchases of Canadians returning from other countries..... | 68,767,046 | 71,467,063 | 75,205,412 | 1,502,894 | 1,537,436 | 1,589,582 | 66,197,789 | 68,969,169 | 72,624,682 |
| Biological products, animal or vegetable, <i>n.o.p.</i> , for parenteral administration in the diagnosis or treatment of diseases..... | 1,154,657 | 1,359,373 | 1,573,228 | 18,921 | 24,003 | 30,179 | 1,122,813 | 1,323,966 | 1,533,501 |
| Cartridges, metallic and other, and ammunition, <i>n.o.p.</i> | 8,023,354 | 6,717,240 | 4,178,887 | 2,696,830 | 3,022,107 | 2,712,701 | 5,256,710 | 3,622,488 | 1,428,236 |
| Pens, penholders, pencils and rulers..... | 1,777,359 | 2,924,246 | 2,612,686 | 47,221 | 52,338 | 70,625 | 1,535,859 | 2,383,169 | 2,340,984 |
| Precious stones, and imitations of (except diamonds)..... | 1,640,034 | 1,438,618 | 1,914,871 | 83,985 | 99,448 | 201,401 | 524,075 | 491,438 | 548,017 |
| Salted or pickled fish..... | 29,904,589 | 25,618,821 | 31,830,684 | 4,324,566 | 3,378,233 | 4,490,747 | 14,834,239 | 15,622,513 | 18,692,171 |
| Shipments under \$50 value..... | 40,637,367 | 41,638,548 | 49,371,409 | 662,496 | 658,352 | 1,238,394 | 39,650,053 | 40,536,591 | 47,141,345 |
| Waxes, vegetable and mineral, <i>n.o.p.</i> , and wax and manufactures of <i>n.o.p.</i> | 2,267,763 | 2,129,567 | 2,308,594 | 12,366 | 17,235 | 12,120 | 728,679 | 682,765 | 534,560 |
| All other articles imported..... | 13,438,943 | 15,082,956 | 19,870,667 | 608,400 | 670,698 | 763,445 | 10,609,990 | 12,016,144 | 16,214,146 |
| Totals, Miscellaneous Commodities..... | 468,866,331 | 530,577,553 | 532,468,689 | 33,215,630 | 39,263,941 | 37,332,923 | 395,728,823 | 453,085,353 | 447,444,815 |
| Grand Totals, Imports..... | 4,093,196,238 | 4,712,370,035 | 5,705,448,903 | 392,471,571 | 400,530,822 | 484,678,970 | 2,961,379,507 | 3,452,178,338 | 4,161,666,638 |

15.—Principal Exports of Canadian Produce from Canada to All Countries, the United Kingdom and the United States 1954-56

| Item | All Countries | | | United Kingdom | | | United States | | |
|---|-------------------|-------------------|-------------------|------------------|------------------|------------------|-------------------|------------------|------------------|
| | 1954 | 1955 | 1956 | 1954 | 1955 | 1956 | 1954 | 1955 | 1956 |
| | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| I. Agricultural and Vegetable Products (except chemicals, fibres and wood) | | | | | | | | | |
| A. MAINLY FOOD | | | | | | | | | |
| Fruits— | | | | | | | | | |
| Apples fresh..... | 6,437,846 | 6,558,549 | 6,635,250 | 1,049,877 | 2,353,119 | 2,254,828 | 4,996,976 | 3,840,771 | 3,983,980 |
| Berries, fresh..... | 4,829,616 | 2,740,349 | 2,797,808 | — | — | — | 4,829,368 | 2,740,046 | 2,797,529 |
| Fresh fruits, <i>n.o.p.</i> | 2,011,622 | 1,578,318 | 531,535 | — | 8,604 | 8,859 | 2,003,267 | 1,565,736 | 519,364 |
| Canned or preserved fruits..... | 924,200 | 1,462,579 | 1,348,513 | 176,738 | 477,326 | 490,424 | 634,599 | 1,127,137 | 512,113 |
| Fruit juices, fruit syrups, and dried fruits..... | 246,098 | 595,286 | 478,027 | — | — | — | 136,596 | 339,006 | 374,153 |
| Totals, Fruits..... | 14,449,382 | 12,935,081 | 11,791,133 | 1,226,615 | 2,839,049 | 2,754,111 | 12,600,806 | 9,097,686 | 8,187,139 |

[illegible]

15.—Principal Exports of Canadian Produce from Canada to All Countries, the United Kingdom and the United States 1951-56—continued

| Item | All Countries | | | United Kingdom | | | United States | | |
|---|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| | 1954 | 1955 | 1956 | 1954 | 1955 | 1956 | 1954 | 1955 | 1956 |
| | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| I. Agricultural and Vegetable Products (except chemicals, fibres and wood)—concl. | | | | | | | | | |
| B. OTHER THAN FOOD—concl. | | | | | | | | | |
| Peat moss and other mosses..... | 4,499,952 | 5,388,362 | 6,068,845 | — | — | — | 4,498,695 | 5,385,671 | 6,066,393 |
| Fodders, <i>n.o.p.</i> | 9,661,970 | 7,207,708 | 8,007,224 | — | 68,521 | 296,669 | 8,077,018 | 6,639,020 | 6,565,750 |
| Hay..... | 4,217,080 | 3,044,443 | 3,044,355 | — | — | — | 4,191,887 | 2,993,384 | 3,022,122 |
| Vegetable products, other, not food..... | 2,766,314 | 2,435,364 | 2,328,678 | 282,317 | 296,096 | 476,726 | 2,126,282 | 1,801,943 | 1,464,003 |
| TOTALS, B. OTHER THAN FOOD..... | 155,540,407 | 189,716,459 | 214,099,666 | 25,640,748 | 47,888,102 | 59,853,959 | 95,292,853 | 88,744,393 | 100,280,448 |
| Totals, Agricultural and Vegetable Products..... | 803,450,837 | 752,347,975 | 974,963,582 | 227,240,965 | 272,141,502 | 308,750,603 | 213,324,705 | 160,528,464 | 199,334,471 |
| II. Animals and Animal Products (except chemicals and fibres) | | | | | | | | | |
| Animals, Living— | | | | | | | | | |
| Cattle, swine, sheep and poultry, pure bred, for improvement of stock..... | 4,800,842 | 6,164,979 | 6,936,125 | 500 | — | 1,000 | 4,116,013 | 4,915,109 | 4,891,581 |
| Horses, <i>n.o.p.</i> | 12,017,811 | 7,729,001 | 4,772,754 | — | — | — | 11,902,722 | 7,263,346 | 4,613,947 |
| Horses..... | 9,911,870 | 7,797,092 | 6,698,428 | — | — | 6,000 | 903,615 | 775,270 | 687,358 |
| Other animals, living..... | 1,524,676 | 633,662 | 540,427 | 17,527 | 11,344 | 14,324 | 1,431,219 | 848,171 | 402,772 |
| Totals, Animals, Living..... | 19,255,199 | 15,324,734 | 12,947,734 | 18,027 | 11,344 | 21,324 | 18,353,569 | 13,801,896 | 10,565,658 |
| Fish and Fishery Products, <i>n.o.p.</i> — | | | | | | | | | |
| Fish, fresh and frozen..... | 56,649,530 | 55,262,810 | 59,594,357 | — | 24 | — | 55,844,346 | 54,460,478 | 58,695,581 |
| Fish, salted, dried, pickled and smoked..... | 23,340,893 | 23,939,406 | 22,835,086 | — | 14 | 75 | 5,348,137 | 5,666,752 | 5,745,023 |
| Fish, canned or preserved, <i>n.o.p.</i> | 25,819,679 | 18,216,584 | 17,449,760 | 10,966,480 | 4,472,605 | 7,216,381 | 3,954,133 | 3,698,157 | 2,123,003 |
| Molluscs and crustaceans..... | 17,322,280 | 20,245,795 | 20,554,159 | 382,020 | 317,218 | 356,572 | 16,659,352 | 19,638,267 | 19,798,267 |
| Other fishery products, <i>n.o.p.</i> | 6,757,584 | 7,622,903 | 9,494,960 | 157,584 | 431,864 | 486,366 | 6,061,319 | 6,387,694 | 8,228,769 |
| Totals, Fishery Products, <i>n.o.p.</i> | 129,889,966 | 125,287,498 | 129,928,322 | 11,506,084 | 5,221,725 | 8,059,392 | 87,867,287 | 89,751,348 | 94,590,673 |
| Totals, Fishery Products, <i>n.o.p.</i> | | | | | | | | | |
| Fur skins, undressed..... | 22,996,986 | 28,286,927 | 25,893,105 | 4,111,881 | 4,653,000 | 4,224,502 | 19,582,896 | 23,133,897 | 20,831,011 |
| Fur skins, dressed, and manufactures of fur..... | 1,315,688 | 1,936,023 | 1,839,794 | 79,329 | 31,993 | 12,888 | 995,481 | 1,330,989 | 1,043,868 |
| Hair and bristles..... | 833,203 | 946,746 | 1,065,717 | 358,121 | 160,380 | 202,515 | 389,135 | 657,213 | 791,006 |
| Hides and skins, raw (except fur skins)..... | 8,928,480 | 9,751,091 | 10,225,319 | 1,211,527 | 1,382,564 | 1,757,021 | 3,262,199 | 3,259,444 | 3,691,891 |
| Leather, unmanufactured..... | 7,026,376 | 7,677,054 | 8,888,147 | 1,729,142 | 1,871,495 | 1,511,669 | 3,137,434 | 3,650,510 | 4,496,568 |
| Leather, manufactures of..... | 2,610,705 | 2,174,089 | 2,446,517 | 56,920 | 168,402 | 228,772 | 2,098,873 | 1,446,248 | 1,592,703 |

| | | | | | | | | | |
|--|-------------|-------------|-------------|------------|------------|------------|-------------|-------------|-------------|
| Meats— | 22,281,106 | 18,209,359 | 16,472,938 | 1,295,572 | 3,404 | 2,568 | 20,000,912 | 17,429,853 | 15,716,333 |
| Fresh, chilled and frozen..... | | | | | | | | | |
| Bacon and hams, shoulders and sides, cured or smoked..... | 6,348,698 | 6,482,881 | 5,663,090 | — | 3,267 | 63,171 | 5,639,660 | 5,671,803 | 4,757,405 |
| Meats, other, and preparations of meats..... | 24,117,776 | 16,644,925 | 14,899,029 | 2,981 | 58,552 | 76,408 | 14,200,741 | 12,477,181 | 11,068,125 |
| Totals, Meats..... | 52,747,580 | 41,407,165 | 37,035,057 | 1,298,553 | 65,223 | 142,147 | 39,841,313 | 35,578,837 | 31,541,883 |
| Milk and Its Products— | | | | | | | | | |
| Butter..... | 90,880 | 2,837,999 | 824,417 | 495 | 357 | 325 | — | 208 | 465 |
| Cheese..... | 1,544,281 | 4,035,411 | 4,178,143 | 1,156,462 | 3,629,866 | 3,677,059 | 215,697 | 259,069 | 282,914 |
| Casain; milk, fresh; and cream..... | 908,096 | 638,020 | 702,165 | 72,056 | 11,676 | 66,808 | 794,659 | 613,960 | 720,317 |
| Milk, processed..... | 7,621,136 | 8,049,409 | 8,951,786 | — | — | — | 85,629 | 74,510 | 85,536 |
| Milk preparations, <i>n.o.p.</i> | 499,494 | 498,155 | 574,195 | — | — | — | — | 13 | — |
| Totals, Milk and Its Products..... | 10,623,837 | 16,005,994 | 15,320,706 | 1,228,943 | 3,641,699 | 3,744,192 | 1,095,985 | 947,760 | 1,089,232 |
| Oils, fish, seal and whale..... | 1,650,607 | 2,205,378 | 2,232,033 | 53,770 | 36,430 | 3,893 | 1,264,334 | 1,212,207 | 1,076,628 |
| Animal oils, fats, greases and wax, <i>n.o.p.</i> | 2,202,408 | 3,246,892 | 4,117,944 | — | 283,100 | 1,382,733 | 277,804 | 232,278 | 183,838 |
| Eggs..... | 3,368,014 | 2,360,909 | 2,201,574 | — | 276,704 | 298,205 | 1,336,305 | 746,704 | 878,625 |
| Sausage casings..... | 2,302,475 | 2,300,909 | 2,201,574 | 211,540 | — | — | 1,269,935 | 1,204,451 | 1,300,925 |
| Horsemeat, not for human consumption, and animal food, prepared..... | 2,711,354 | 3,193,891 | 2,410,214 | — | — | — | 2,696,646 | 3,111,530 | 2,388,896 |
| Animal products, <i>n.o.p.</i> | 1,401,950 | 1,633,267 | 1,787,241 | 10,138 | 55,324 | 79,848 | 1,252,105 | 1,391,316 | 1,374,856 |
| Totals, Animals and Animal Products..... | 269,861,323 | 263,621,136 | 260,249,306 | 21,874,065 | 17,859,383 | 21,669,101 | 183,721,301 | 181,456,628 | 177,468,261 |
| III. Fibres, Textiles and Textile Products | | | | | | | | | |
| Cotton— | | | | | | | | | |
| Cotton rags and waste..... | 569,201 | 988,805 | 1,146,428 | 10,049 | 187,817 | 61,651 | 387,146 | 578,617 | 599,243 |
| Fabrics..... | 926,200 | 1,098,144 | 892,263 | 13,308 | 15,505 | 11,922 | 47,250 | 63,490 | 57,179 |
| Clothing (including socks and stockings)..... | 409,130 | 683,399 | 842,105 | 60,773 | 102,145 | 121,042 | 30,655 | 130,090 | 265,440 |
| Cotton manufactures, <i>n.o.p.</i> | 318,712 | 421,039 | 655,268 | 493 | 1,867 | 1,832 | 50,350 | 90,335 | 119,140 |
| Totals, Cotton..... | 2,220,649 | 3,111,477 | 3,536,064 | 84,625 | 307,334 | 196,467 | 515,381 | 862,532 | 1,041,002 |
| Flax, Hemp and Jute— | | | | | | | | | |
| Waste bagging and cloth of jute..... | 608,078 | 980,401 | 855,612 | — | — | — | 543,893 | 976,081 | 855,471 |
| Flax, hemp and jute products, other..... | 302,410 | 179,844 | 199,255 | 46,240 | 76 | 865 | 248,975 | 177,207 | 191,130 |
| Totals, Flax, Hemp and Jute..... | 910,488 | 1,160,245 | 1,054,867 | 46,240 | 76 | 865 | 792,868 | 1,153,288 | 1,046,601 |
| Silk and manufactures of (except socks and stockings)..... | 6,355 | 10,352 | 4,232 | — | — | — | 5,929 | 6,385 | 2,646 |
| Wool— | | | | | | | | | |
| Raw wool (includes noils and tops)..... | 1,488,774 | 1,376,922 | 1,742,233 | 843,241 | 803,758 | 1,050,133 | 645,533 | 573,164 | 600,665 |
| Wool rags and waste..... | 2,141,446 | 2,942,963 | 2,083,263 | — | 561 | 27,668 | 813,364 | 832,912 | 912,076 |
| Wool fabrics..... | 88,534 | 1,001,920 | 7,610 | 7,610 | 5,311 | 5,103 | 76,281 | 53,159 | 78,280 |
| Clothing (except socks and stockings)..... | 1,388,151 | 1,343,349 | 1,486,340 | 2,321 | 2,127 | 2,004 | 1,139,118 | 1,184,929 | 1,284,795 |
| Wool manufactures, <i>n.o.p.</i> | 106,259 | 99,577 | 115,095 | 335 | 1,606 | 200 | 98,470 | 84,609 | 107,581 |
| Totals, Wool..... | 5,209,164 | 5,824,731 | 5,511,392 | 853,417 | 813,363 | 1,085,198 | 2,772,766 | 2,728,773 | 2,983,347 |

15.—Principal Exports of Canadian Produce from Canada to All Countries, the United Kingdom and the United States 1954-56—continued

| Item | All Countries | | | United Kingdom | | | United States | | |
|--|---------------|-------------|-------------|----------------|------------|------------|---------------|-------------|-------------|
| | 1954 | 1955 | 1956 | 1954 | 1955 | 1956 | 1954 | 1955 | 1956 |
| III. Fibres, Textiles and Textile Products— | | | | | | | | | |
| concluded | | | | | | | | | |
| Synthetic Fibre— | | | | | | | | | |
| Fabrics..... | 1,078,831 | 966,432 | 1,168,044 | 89,752 | 78,130 | 54,524 | 134,499 | 38,245 | 142,735 |
| Clothing (except socks and stockings)..... | 361,031 | 344,534 | 296,634 | 3,090 | 2,174 | 12,830 | 13,746 | 13,903 | 18,746 |
| Synthetic fibre manufactures, <i>n.o.p.</i> | 2,871,568 | 2,984,585 | 2,218,273 | 127,623 | 209,728 | 40,530 | 412,616 | 177,407 | 547,969 |
| Totals, Synthetic Fibre..... | 4,311,430 | 4,295,551 | 3,682,951 | 220,474 | 290,032 | 107,884 | 566,843 | 229,615 | 709,450 |
| Cordage, rope and twine, <i>n.o.p.</i> | | | | | | | 2,853,654 | 2,918,082 | 3,293,049 |
| Binder twine..... | 3,179,023 | 3,792,958 | 4,075,217 | 115 | — | — | 2,292,277 | 1,388,634 | 1,143,513 |
| Bags..... | 2,252,516 | 1,388,634 | 1,143,513 | — | — | 203 | 68,283 | 137,870 | 67,863 |
| Felt manufactures..... | 446,806 | 330,264 | 155,051 | 18,483 | 31,571 | 37,442 | 14,113 | 22,772 | 10,086 |
| Clothing, <i>n.o.p.</i> (including socks and stockings, <i>n.o.p.</i>)..... | 519,043 | 611,258 | 799,350 | — | — | — | 366,816 | 361,898 | 338,213 |
| Oilcloth and linoleum..... | 995,493 | 1,223,285 | 1,190,471 | 122,315 | 323,331 | 413,661 | 658 | 1,093 | 2,023 |
| Textile products, <i>n.o.p.</i> | 142,788 | 149,667 | 216,692 | — | — | — | 509,899 | 446,531 | 666,833 |
| Totals, Fibres, Textiles and Textile Products | 20,969,978 | 22,816,126 | 22,568,238 | 1,349,461 | 1,779,281 | 1,879,885 | 10,719,922 | 10,237,038 | 11,304,171 |
| IV. Wood, Wood Products and Paper | | | | | | | | | |
| Wood, Unmanufactured or Partially Manufactured— | | | | | | | | | |
| Logs..... | 3,860,009 | 3,459,508 | 3,197,795 | 568,715 | 479,472 | 627,477 | 2,881,719 | 2,586,527 | 2,260,242 |
| Pit props..... | 2,702,642 | 3,150,576 | 2,182,411 | 2,556,218 | 2,777,658 | 1,932,070 | — | 157 | 363 |
| Poles..... | 3,456,736 | 3,688,223 | 4,798,447 | — | — | 2,135 | 3,383,313 | 3,692,405 | 4,777,129 |
| Railroad ties..... | 3,338,874 | 2,085,421 | 1,711,099 | 1,816,102 | 1,887,306 | 1,300,340 | 37,736 | 35,425 | 408,509 |
| Billets and blocks..... | 1,291,389 | 1,789,712 | 1,955,017 | 128,012 | 187,787 | 79,951 | 1,112,514 | 1,463,953 | 1,803,787 |
| Planks and boards..... | 324,724,278 | 385,313,009 | 326,445,303 | 68,598,269 | 70,420,022 | 40,103,468 | 225,613,732 | 273,424,353 | 282,593,642 |
| Timber, square..... | 1,302,463 | 984,920 | 1,653,571 | 257,555 | 292,890 | 794,178 | 162,431 | 38,759 | 133,986 |
| Laths..... | 1,162,185 | 1,210,191 | 1,033,465 | — | — | — | 1,155,885 | 1,201,234 | 1,051,219 |
| Pickets..... | 913,182 | 1,026,957 | 1,026,957 | — | — | — | 912,759 | 1,051,053 | 1,026,957 |
| Shingles..... | 24,181,626 | 29,145,403 | 24,546,035 | 268,550 | 286,158 | 308,617 | 23,578,773 | 28,202,509 | 23,886,907 |
| Veneers and plywoods..... | 21,555,108 | 30,103,676 | 29,020,281 | 922,233 | 3,029,448 | 2,980,221 | 20,380,052 | 26,441,478 | 25,616,223 |
| Christmas trees..... | 4,816,366 | 5,863,523 | 6,122,608 | — | — | — | 4,786,217 | 5,838,728 | 6,088,985 |
| Pulpwood..... | 45,765,682 | 48,655,140 | 49,794,173 | 4,334,710 | 4,341,016 | 3,727,177 | 38,759,540 | 39,457,420 | 41,276,505 |
| Spoolwood..... | 1,056,343 | 958,115 | 1,495,863 | 663,851 | 587,011 | 1,069,890 | 305,020 | 354,025 | 411,431 |
| Wood, unmanufactured, <i>n.o.p.</i> | 1,514,298 | 1,130,539 | 1,362,538 | 368 | 2,815 | 2,250 | 1,329,831 | 1,049,768 | 1,245,501 |
| Totals, Wood, Unmanufactured or Partially Manufactured..... | 441,641,151 | 518,559,009 | 456,365,563 | 80,114,583 | 84,271,583 | 52,927,804 | 324,399,522 | 384,767,794 | 362,551,386 |

| | | | | | | | | |
|---|------------------|------------------|------------------|---------------|---------------|---------------|---------------|---------------|
| Wood, Manufactured— | 271, 418, 005 | 297, 304, 069 | 304, 536, 497 | 34, 814, 098 | 29, 762, 920 | 206, 435, 403 | 233, 796, 779 | 245, 080, 531 |
| Wood pulp..... | 315, 730 | 855, 142 | 1, 153, 356 | 34, 489, 399 | 856 | 288, 319 | 844, 611 | 1, 138, 785 |
| Doors..... | 1, 193, 996 | 1, 141, 179 | 994, 166 | 1, 097, 911 | 1, 018, 950 | — | — | — |
| Match splints..... | 1, 192, 110 | 1, 103, 906 | 397, 341 | 550, 193 | 532, 270 | 2, 424, 851 | 3, 261, 124 | 3, 613, 180 |
| Manufactures of wood, <i>n.o.p.</i> | 4, 414, 434 | 5, 114, 850 | 5, 450, 552 | 36, 462, 202 | 31, 314, 996 | 209, 148, 573 | 237, 902, 514 | 249, 832, 496 |
| Totals, Wood, Manufactured..... | 277, 280, 279 | 304, 488, 057 | 312, 281, 584 | 35, 877, 906 | 31, 314, 996 | 209, 148, 573 | 237, 902, 514 | 249, 832, 496 |
| Paper— | 6, 230, 751 | 10, 728, 887 | 14, 020, 374 | 1, 266, 958 | 7, 425, 135 | 4, 475, 412 | 7, 039, 449 | 6, 058, 594 |
| Pulpboard, wallboard and paperboard..... | 4, 540, 362 | 5, 917, 188 | 7, 137, 201 | 1, 266, 958 | 3, 105, 515 | 4, 475, 412 | 7, 039, 449 | 6, 058, 594 |
| Book paper..... | 635, 660, 692 | 865, 876, 987 | 708, 384, 822 | 28, 639, 166 | 33, 013, 480 | 3, 598, 065 | 4, 463, 487 | 5, 148, 988 |
| Newspaper paper..... | 2, 333, 776 | 3, 206, 265 | 2, 719, 771 | 352, 836 | 685, 986 | 558, 633, 675 | 578, 322, 418 | 615, 941, 551 |
| Wrapping paper..... | 1, 949, 553 | 2, 860, 533 | 2, 836, 158 | 248, 352 | 89, 956 | 964, 717 | 1, 409, 225 | 1, 119, 264 |
| Newspaper paper, mutilated or beater stock..... | 5, 214, 060 | 5, 649, 137 | 6, 193, 619 | 65, 910 | 200, 603 | 1, 674, 836 | 2, 740, 965 | 2, 390, 757 |
| Paper and waste paper..... | 655, 938, 194 | 694, 238, 977 | 741, 291, 945 | 30, 573, 889 | 37, 132, 934 | 1, 476, 406 | 1, 277, 395 | 2, 144, 976 |
| Paper and manufactures of, <i>n.o.p.</i> | — | — | — | — | — | — | — | — |
| Totals, Paper..... | 3, 494, 752 | 3, 625, 046 | 4, 518, 509 | 90, 953 | 116, 417 | 570, 823, 111 | 595, 252, 939 | 632, 804, 130 |
| Books, newspapers and other printed and litho-graphed matter..... | 1, 378, 354, 376 | 1, 529, 921, 089 | 1, 514, 457, 601 | 116, 657, 131 | 157, 983, 136 | 3, 040, 260 | 3, 103, 154 | 3, 729, 685 |
| Totals, Wood, Wood Products and Paper.. | 39, 718, 740 | 99, 814, 105 | 144, 442, 550 | 5, 749, 364 | 9, 013, 015 | 18, 506, 953 | 79, 713, 357 | 113, 516, 437 |
| Iron ore..... | 6, 648, 102 | 13, 164, 880 | 21, 176, 727 | 1, 755, 723 | 3, 364, 331 | 4, 452, 079 | 9, 095, 198 | 14, 128, 850 |
| Ferro-alloys..... | 15, 212, 377 | 33, 694, 889 | 20, 748, 618 | 5, 275, 507 | 6, 273, 284 | 10, 795, 033 | 24, 303, 357 | 16, 398, 880 |
| Pigs, ingots, blooms and billets..... | 15, 868, 467 | 20, 367, 387 | 30, 427, 056 | 5, 275, 507 | 5, 862, 760 | 4, 538, 192 | 6, 122, 557 | 11, 538, 272 |
| Scrap iron..... | 3, 831, 009 | 3, 993, 614 | 4, 216, 039 | 2, 409 | 13, 046 | 3, 763, 441 | 3, 914, 022 | 4, 191, 799 |
| Castings and forgings..... | 5, 392, 665 | 20, 313, 001 | 25, 718, 617 | 335, 954 | 3, 327, 793 | 2, 031, 251 | 5, 012, 676 | 3, 959, 092 |
| Rolling-mill products..... | 5, 887, 346 | 1, 292, 617 | 1, 471, 908 | 60 | 3, 494 | 148, 763 | 254, 204 | 489, 939 |
| Tubes, pipes and fittings..... | 23, 646, 702 | 30, 079, 730 | 30, 911, 717 | 297, 081 | 686, 839 | 8, 279, 543 | 11, 817, 859 | 10, 295, 068 |
| Engines and boilers and parts..... | 76, 771, 434 | 76, 009, 839 | 67, 476, 731 | 184, 193 | 267, 382 | 53, 295, 935 | 63, 422, 869 | 55, 600, 423 |
| Farm implements and machinery and parts..... | 7, 735, 397 | 1, 293, 744 | 2, 355, 354 | 12, 293 | 25, 767 | 311, 696 | 806, 792 | 1, 719, 787 |
| Hardware and cutlery..... | 38, 172, 118 | 35, 788, 765 | 47, 129, 906 | 1, 469, 629 | 1, 123, 167 | 10, 416, 074 | 10, 868, 240 | 18, 983, 178 |
| Machinery and parts (except agricultural)..... | 1, 445, 459 | 1, 495, 026 | 1, 986, 033 | 15, 831 | 11, 222 | 389, 749 | 199, 988 | 468, 943 |
| Tools..... | 4, 005, 706 | 6, 280, 788 | 5, 491, 076 | 55, 649 | 230, 089 | 202, 627 | 224, 677 | 13, 376 |
| Automobiles, freight..... | 7, 722, 661 | 13, 164, 837 | 17, 026, 504 | 55, 649 | 230, 089 | 17, 024 | 9, 136 | 56, 809 |
| Automobiles, passenger..... | 15, 374, 579 | 20, 332, 556 | 19, 969, 331 | 229, 617 | 73, 990 | 1, 228, 125 | 1, 503, 490 | 1, 637, 200 |
| Automobile parts..... | 4, 373, 585 | 6, 573, 559 | 3, 927, 508 | 20, 841 | 14, 579 | 1, 754, 016 | 2, 240, 315 | 2, 641, 550 |
| Vehicles and parts, <i>n.o.p.</i> (see also Miscellaneous Commodities)..... | 39, 548, 560 | 4, 128, 727 | 627, 095 | 37 | 14 | 38, 782, 693 | 3, 431, 458 | 6, 154 |
| Guns, rifles and other firearms..... | 1, 474, 317 | 1, 195, 325 | 1, 013, 759 | 2, 149 | 356 | 2, 855 | 1, 355 | 2, 021 |
| Lamps and lanterns of metal..... | 1, 053, 895 | 1, 351, 376 | 1, 546, 013 | 57, 370 | 73, 653 | 112, 516 | 222, 316 | 167, 904 |
| Stoves and heating apparatus and parts..... | 3, 108, 618 | 7, 876, 659 | 11, 186, 200 | 51, 459 | 121, 110 | 263, 826 | 2, 150, 820 | 4, 788, 962 |
| Other iron and steel and manufactures of..... | 300, 691, 737 | 398, 785, 425 | 438, 848, 742 | 15, 515, 166 | 30, 455, 891 | 168, 579, 766 | 235, 314, 722 | 260, 664, 644 |
| Totals, Iron and Its Products..... | 390, 691, 737 | 398, 785, 425 | 438, 848, 742 | 15, 515, 166 | 30, 455, 891 | 168, 579, 766 | 235, 314, 722 | 260, 664, 644 |

V. Iron and Its Products

15.—Principal Exports of Canadian Produce from Canada to All Countries, the United Kingdom and the United States 1954-56—concluded

| Item | All Countries | | | United Kingdom | | | United States | | |
|---|--------------------------------|--------------------------------|--------------------------------|--------------------|--------------------|--------------------|--------------------------------|--------------------------------|--------------------------------|
| | 1954 | 1955 | 1956 | 1954 | 1955 | 1956 | 1954 | 1955 | 1956 |
| VI. Non-ferrous Metals and Their Products (except gold) | | | | | | | | | |
| Aluminium, and manufactures of..... | 184,514,489 | 212,729,745 | 226,163,492 | 75,271,049 | 99,036,835 | 107,884,569 | 76,882,181 | 84,408,685 | 97,276,215 |
| Brass, and manufactures of..... | 6,171,743 | 17,849,066 | 6,574,129 | 290,371 | 386,003 | 159,069 | 2,600,949 | 3,887,185 | 2,452,757 |
| Copper, and manufactures of..... | 135,071,429 | 175,949,866 | 206,499,681 | 46,846,310 | 52,329,453 | 56,979,361 | 39,445,804 | 52,106,578 | 102,892,425 |
| Lead, and manufactures of..... | 40,965,450 | 37,217,360 | 35,046,254 | 10,888,283 | 12,946,092 | 13,437,728 | 24,356,009 | 16,909,355 | 12,681,423 |
| Nickel..... | 182,154,275 | 46,728,969 | 222,168,589 | 35,118,056 | 40,156,734 | 41,541,406 | 123,628,706 | 145,828,592 | 148,512,408 |
| Precious metals, and manufactures of (except gold) | 48,042,017 | 46,728,969 | 35,046,254 | 17,658,022 | 20,370,601 | 20,570,601 | 29,367,598 | 30,622,515 | 35,432,221 |
| Zinc, and manufactures of..... | 58,049,076 | 70,729,585 | 74,232,082 | 16,043,114 | 20,286,808 | 15,790,440 | 38,322,788 | 47,572,555 | 54,737,167 |
| Clocks and watches, and parts..... | 88,832,003 | 692,645 | 1,631,821 | 11,792 | 11,395 | 12,990 | 153,109 | 38,933 | 121,742 |
| Electrical apparatus, <i>n.o.p.</i> (including radio and wireless)..... | 22,912,591 | 20,700,255 | 21,407,292 | 102,994 | 150,079 | 220,857 | 9,268,942 | 7,503,378 | 10,019,573 |
| Printing materials..... | 8,945,291 | 287,020 | 219,705 | 5,163 | 29,554 | 9,908 | 29,558 | 29,376 | 930,371 |
| Uranium ores and concentrates..... | 8,655,651 | 26,533,031 | 5,776,875 | — | — | — | 8,085,685 ¹ | 26,503,091 | 45,779,571 |
| Ores, <i>n.o.p.</i> | 11,610,165 | 14,666,596 | 20,490,966 | 165,377 | 301,132 | 419,320 | 10,697,434 | 1,373,680 | 12,869,982 |
| Metallic scrap, dross and ashes, <i>n.o.p.</i> | 3,310,605 | 5,049,536 | 5,248,080 | 33,895 | 247,317 | 38,295 | 1,932,000 | 3,215,635 | 2,860,905 |
| Cadmium..... | 1,208,355 | 2,275,472 | 2,824,485 | 913,334 | 902,035 | 1,082,775 | 234,147 | 1,200,024 | 1,708,640 |
| Selenium and salts..... | 1,943,752 | 2,555,680 | 6,342,748 | 848,360 | 1,051,431 | 2,573,205 | 1,047,633 | 1,433,376 | 3,395,348 |
| Other non-ferrous metals and manufactures of..... | 11,969,943 | 14,598,143 | 20,186,377 | 4,474,721 | 4,361,637 | 3,645,313 | 5,775,124 | 7,394,682 | 11,545,334 |
| Totals, Non-ferrous Metals and Their Products..... | 717,072,439² | 852,922,799² | 959,471,130² | 208,949,941 | 247,782,668 | 264,333,621 | 392,012,687² | 470,222,560² | 535,759,445² |
| VII. Non-metallic Minerals and Their Products (except chemicals) | | | | | | | | | |
| Asbestos, and manufactures of..... | 83,868,863 | 97,705,882 | 103,638,075 | 6,576,333 | 9,476,516 | 10,036,464 | 48,729,222 | 55,531,776 | 55,121,512 |
| Clay, and manufactures of..... | 2,223,034 | 2,633,695 | 3,340,932 | 230 | 2,923 | 1,512 | 1,332,194 | 1,748,227 | 2,304,911 |
| Coal..... | 1,716,435 | 4,870,598 | 4,710,030 | — | 2,097,945 | 1,847,775 | 1,583,639 | 2,655,106 | 2,710,961 |
| Coke..... | 2,207,547 | 2,464,581 | 2,478,878 | 497,181 | 506,717 | 511,235 | 1,394,280 | 1,556,967 | 1,529,132 |
| Coal products, <i>n.o.p.</i> | 433,101 | 507,614 | 941,611 | — | — | — | 433,101 | 507,356 | 941,540 |
| Glass, and manufactures of..... | 1,365,092 | 2,706,305 | 1,505,740 | 831 | 518 | 430 | 1,049,617 | 2,344,529 | 1,080,277 |
| Petroleum and its products..... | 8,676,863 | 39,919,414 | 114,948,124 | 31,706 | — | 991 | 6,895,336 | 39,490,736 | 111,167,333 |
| Brassives..... | 27,782,021 | 27,460,339 | 29,181,758 | 4,401,111 | 4,177,660 | 3,781,824 | 23,012,144 | 22,884,466 | 24,723,806 |
| Lime, plaster and cement..... | 3,380,337 | 8,751,430 | 9,676,675 | 33,232 | 44,776 | 4,139 | 5,271,501 | 8,636,276 | 9,659,901 |
| Stone and its products, <i>n.o.p.</i> | 3,467,881 | 6,926,662 | 8,318,354 | 14,776 | 46,987 | 34,701 | 2,270,324 | 5,825,880 | 6,894,669 |
| Sulphur and graphite electrodes..... | 1,251,711 | 2,945,511 | 3,282,932 | 318,220 | 1,848,696 | 2,358,832 | 3,274 | 61,700 | 58,327 |
| Sulphur..... | 1,666,729 | 2,065,716 | 2,777,465 | 388,300 | 458,202 | 508,970 | 993,563 | 1,289,683 | 1,373,863 |
| Salt..... | 23,935 | 1,000,501 | 2,255,850 | — | — | — | 14,445 | 988,489 | 2,279,882 |
| Other non-metallic minerals and manufactures of..... | 6,634,905 | 6,191,405 | 5,432,453 | 9,967 | 22,293 | 100,472 | 5,430,540 | 5,898,423 | 4,963,493 |
| Totals, Non-metallic Minerals and Their Products..... | 145,573,124 | 206,193,646 | 292,093,867 | 12,270,887 | 18,548,911 | 19,297,318 | 98,413,470 | 149,439,625 | 224,839,607 |

¹ October to December 1954.² Revised because of transfer of uranium ores and concentrates from Chemicals to Non-ferrous Metals as of Jan. 1, 1957.

VIII. Chemicals and Allied Products

| | | | | | | | | | |
|--|--------------------------|--------------------------|--------------------------|------------|------------|------------|-------------------------|-------------------------|-------------------------|
| Acids..... | 1,711,072 | 1,872,877 | 2,180,661 | 191,365 | 298,871 | 203,715 | 955,479 | 1,369,430 | 1,891,573 |
| Alcohols, industrial..... | 360,112 | 762,045 | 482,988 | 161,673 | 81,246 | 297,996 | 21,257 | 536,251 | 177,530 |
| Drugs, medicinal and pharmaceutical prepara- tions..... | 42,342,394 | 4,247,962 | 5,349,076 | 25,804 | 16,032 | 33,078 | 634,909 | 683,862 | 1,686,587 |
| Fertilizers..... | 1,380,644 | 1,724,144 | 2,085,817 | 11,418 | 51,308 | — | 39,106,183 | 44,575,361 | 41,920,478 |
| Paints and varnishes..... | 2,436,420 | 2,805,619 | 2,025,369 | 808,980 | 1,585,895 | 653,753 | 626,168 | 1,031,316 | 1,251,842 |
| Calcium compounds..... | 6,542,815 | 2,891,702 | 2,678,198 | — | 2,207 | 203,414 | 286,168 | 9,673 | 1,161,120 |
| Soda and sodium compounds..... | 1,454,648 | 2,894,384 | 2,315,141 | 1,425,254 | 2,864,130 | 2,310,741 | 5,435,327 | 6,731,443 | 5,087,357 |
| Cobalt oxides and cobalt salts..... | 285,581 | 561,259 | 1,296,452 | — | 116 | — | 11,000 | 25,732 | 4,400 |
| Inorganic chemicals, <i>n.o.p.</i> | 13,309,767 | 21,577,140 | 21,984,361 | 3,227,697 | 2,468,863 | 1,132,315 | 261,176 | 555,113 | 1,281,228 |
| Organic chemicals..... | 7,488,917 | 7,009,108 | 280,696 | 280,696 | 16,174,136 | 1,552 | 920,856 | 1,423,619 | 2,610,552 |
| Plastics and products..... | 70,449,530 ² | 75,044,636 ² | 82,898,539 ² | 9,548,396 | 12,114,457 | 16,444,281 | 11,639 | 45,884 | 4,461 |
| Chemicals and allied products, <i>n.o.p.</i> | 153,237,627 ² | 183,507,040 ² | 182,854,337 ² | 15,676,361 | 19,944,870 | 21,282,503 | 77,854,806 ² | 85,191,429 ² | 84,974,700 ² |

Totals, Chemicals and Allied Products.....

IX. Miscellaneous Commodities

| | | | | | | | | | |
|---|---------------|---------------|---------------|-------------|-------------|-------------|---------------|---------------|---------------|
| Toys, dolls and other amusement and sporting goods, <i>n.o.p.</i> | 582,108 | 958,980 | 1,349,352 | 51,959 | 53,099 | 41,056 | 338,077 | 654,534 | 989,915 |
| Brushes..... | 369,741 | 295,966 | 144,352 | — | 99 | — | 172,979 | 142,669 | 14,357 |
| Containers, <i>n.o.p.</i> | 2,185,947 | 3,612,038 | 8,730,965 | 62,640 | 34,122 | 11,138 | 466,266 | 477,315 | 646,285 |
| Household and Personal Equipment, <i>n.o.p.</i> — Pens, pencils and parts..... | 1,381,269 | 1,106,325 | 1,177,758 | 145,284 | 227,723 | 116,890 | 22,014 | 19,359 | 51,708 |
| Power-operated refrigerators and parts..... | 287,493 | 529,379 | 398,004 | 354 | 354 | 641 | 106,442 | 151,195 | 40,407 |
| Other household and personal equipment, <i>n.o.p.</i> | 619,680 | 613,194 | 799,617 | 18,977 | 45,653 | 61,630 | 111,336 | 119,621 | 155,551 |
| Totals, Household and Personal Equipment, <i>n.o.p.</i> | 2,288,442 | 2,248,898 | 2,375,379 | 164,540 | 273,730 | 179,161 | 239,792 | 290,075 | 247,666 |
| Musical instruments and parts..... | 603,604 | 621,746 | 655,539 | 663 | 2,434 | 1,626 | 579,169 | 579,926 | 596,094 |
| Cameras, films and other philosophical and scientific apparatus..... | 5,078,749 | 5,507,320 | 6,343,796 | 524,913 | 549,973 | 579,424 | 1,555,622 | 1,840,126 | 1,894,493 |
| Ships and vessels and materials for ships..... | 8,755,257 | 6,310,700 | 8,517,829 | 10,744 | 1,291 | 3,226 | 1,791,106 | 1,998,058 | 1,711,784 |
| Aircraft and parts..... | 28,442,248 | 19,905,785 | 49,544,897 | 674,596 | 188,274 | 156,526 | 25,122,914 | 17,490,030 | 28,611,138 |
| Vehicles and parts, <i>n.o.p.</i> (see also Iron) Cartridges..... | 248,997 | 185,232 | 178,626 | 111 | — | — | 162,875 | 140,974 | 154,687 |
| Electrical energy..... | 13,803,510 | 3,565,156 | 226,287 | 17 | 2,228 | 168 | 13,239,164 | 3,437,689 | 18,305 |
| Settlers' effects..... | 7,422,474 | 10,615,715 | 15,194,769 | 1,564,388 | 1,540,111 | 1,443,412 | 7,420,276 | 10,613,308 | 15,192,877 |
| Gifts and donations..... | 17,261,419 | 21,908,435 | 27,697,288 | 810,950 | 130,901 | 149,175 | 12,778,763 | 16,642,275 | 22,357,317 |
| All other articles exported..... | 3,792,953 | 1,547,585 | 1,606,477 | 8,401 | 10,244 | 22,226 | 147,744 | 125,656 | 130,767 |
| Totals, Miscellaneous Commodities..... | 1,195,859 | 3,382,461 | 6,667,424 | 8,401 | 130,241 | 22,226 | 1,120,007 | 1,473,040 | 2,826,329 |
| Totals, Miscellaneous Commodities..... | 92,031,308 | 89,666,017 | 124,232,890 | 3,873,322 | 2,787,006 | 2,587,138 | 65,114,754 | 55,905,975 | 75,392,014 |
| Grand Totals, Exports..... | 3,881,271,554 | 4,284,784,253 | 4,789,745,693 | 653,407,902 | 769,312,648 | 812,706,074 | 2,317,152,877 | 2,559,342,842 | 2,815,655,010 |

Section 5.—Imports and Exports by Degree of Manufacture, by Origin and by Purpose

The tables in this Section present Canada's trade according to three alternative classifications other than the classification by component material used in Section 4.

16.—Imports according to Degree of Manufacture by Leading Countries 1955 and 1956

| Country | 1955 | | | 1956 | | |
|---|----------------|---------------------|-------------------------------|----------------|---------------------|-------------------------------|
| | Raw Materials | Partly Manufactured | Fully or Chiefly Manufactured | Raw Materials | Partly Manufactured | Fully or Chiefly Manufactured |
| | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| North America¹ | 431,476 | 122,059 | 2,902,640 | 488,491 | 173,038 | 3,503,977 |
| United States | 431,193 | 122,040 | 2,898,945 | 488,181 | 173,014 | 3,500,472 |
| Central America and Antilles¹ | 71,824 | 22,741 | 41,754 | 88,031 | 24,599 | 50,297 |
| Barbados | — | 5,761 | 2,474 | — | 2,660 | 1,973 |
| Jamaica | 7,991 | 6,347 | 1,229 | 12,430 | 10,906 | 1,297 |
| Trinidad and Tobago | 7,780 | 1,396 | 665 | 7,916 | 2,046 | 1,089 |
| Cuba | 2,216 | 5,663 | 2,145 | 2,328 | 6,448 | 3,503 |
| Honduras | 1,644 | 22 | — | 7,068 | 11 | 1 |
| Mexico | 25,512 | 260 | 3,042 | 38,456 | 292 | 2,951 |
| Netherlands Antilles | 276 | — | 30,447 | 155 | — | 37,964 |
| Panama | 8,919 | 2 | 117 | 7,573 | — | 11 |
| South America¹ | 242,513 | 8,910 | 22,233 | 274,272 | 10,273 | 21,149 |
| British Guiana | 9,469 | 7,758 | 1,080 | 9,343 | 9,375 | 1,779 |
| Argentina | 1,381 | 7 | 3,027 | 2,136 | 78 | 2,413 |
| Brazil | 26,295 | 1,047 | 3,405 | 30,732 | 745 | 3,355 |
| Colombia | 22,202 | 3 | 15 | 22,973 | 1 | 82 |
| Ecuador | 5,168 | 1 | 18 | 4,471 | 2 | 25 |
| Venezuela | 173,261 | — | 14,017 | 197,106 | — | 11,295 |
| Northwestern Europe¹ | 18,972 | 46,813 | 503,573 | 23,468 | 51,548 | 662,020 |
| United Kingdom | 11,898 | 39,955 | 348,679 | 13,328 | 44,405 | 426,946 |
| Belgium and Luxembourg | 639 | 2,969 | 25,443 | 782 | 3,535 | 48,411 |
| Denmark | 898 | 30 | 3,342 | 1,249 | 14 | 4,920 |
| France | 440 | 1,241 | 23,335 | 335 | 1,205 | 31,060 |
| Germany, Federal Republic | 1,004 | 664 | 53,935 | 3,876 | 709 | 84,763 |
| Netherlands | 3,228 | 1,777 | 15,947 | 3,071 | 1,374 | 19,331 |
| Sweden | 567 | 79 | 11,506 | 517 | 133 | 16,653 |
| Switzerland | 71 | 9 | 19,285 | 87 | 3 | 22,211 |
| Southern Europe¹ | 2,408 | 3,230 | 21,567 | 1,815 | 3,135 | 28,508 |
| Italy | 1,660 | 1,473 | 15,369 | 1,207 | 1,560 | 22,200 |
| Spain | 560 | 1,591 | 4,070 | 344 | 1,399 | 3,985 |
| Eastern Europe¹ | 909 | 437 | 4,363 | 1,199 | 1,189 | 8,913 |
| Czechoslovakia | 109 | 20 | 2,750 | 137 | 10 | 5,528 |
| Middle East¹ | 27,302 | 111 | 4,356 | 47,258 | 178 | 2,906 |
| Arabia | 6,983 | — | 2 | 24,709 | — | 3 |
| Lebanon | 17,909 | — | 11 | 19,588 | — | 13 |
| Other Asia¹ | 40,714 | 11,965 | 78,454 | 37,275 | 14,821 | 102,448 |
| Ceylon | 2,418 | 3,051 | 10,111 | 1,064 | 3,619 | 11,881 |
| Hong Kong | 1,434 | 39 | 4,402 | 1,227 | 25 | 4,447 |
| India | 4,721 | 1,369 | 29,057 | 3,290 | 284 | 27,323 |
| Malaya and Singapore | 25,171 | 3,335 | 304 | 22,360 | 5,811 | 387 |
| China | 844 | 15 | 2,267 | 2,467 | 14 | 3,240 |
| Japan | 3,498 | 1,936 | 31,284 | 3,872 | 2,443 | 54,511 |
| Other Africa¹ | 16,632 | 11,859 | 2,621 | 19,146 | 13,313 | 2,768 |
| British East Africa | — | — | — | 6,220 | 14 | 1,056 |
| Mauritius and Seychelles | 4,513 | 7,739 | 906 | 5 | 7,753 | — |
| Union of South Africa | 3,040 | 1,901 | 1,314 | 2,834 | 4,155 | 1,412 |
| Oceania¹ | 14,953 | 16,825 | 15,156 | 16,008 | 19,029 | 14,376 |
| Australia | 6,515 | 9,120 | 10,660 | 8,127 | 8,367 | 9,816 |
| Fiji | 2 | 5,015 | 1 | — | 6,265 | 2 |
| New Zealand | 8,317 | 2,592 | 1,408 | 7,755 | 4,173 | 393 |
| Totals, Imports | 867,703 | 244,949 | 3,599,718 | 996,963 | 311,122 | 4,397,363 |

¹ Includes other countries not specified.² Less than \$500.

17.—Exports of Canadian Produce according to Degree of Manufacture by Leading Countries 1955 and 1956

| Country | 1955 | | | 1956 | | |
|---|------------------------------|---------------------|-------------------------------|------------------------------|---------------------|-------------------------------|
| | Raw Materials | Partly Manufactured | Fully or Chiefly Manufactured | Raw Materials | Partly Manufactured | Fully or Chiefly Manufactured |
| | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| North America¹ | 541,191² | 983,552 | 1,037,288² | 697,322 | 1,019,072 | 1,106,965² |
| United States..... | 539,959 ² | 983,403 | 1,035,981 ² | 696,387 ² | 1,018,914 | 1,103,354 ² |
| Central America and Antilles¹ | 7,285 | 12,933 | 101,273 | 8,323 | 15,610 | 112,866 |
| Barbados..... | 336 | 590 | 3,341 | 408 | 686 | 3,627 |
| Jamaica..... | 1,125 | 207 | 11,574 | 1,301 | 406 | 15,515 |
| Trinidad and Tobago..... | 1,796 | 483 | 10,346 | 2,082 | 589 | 9,820 |
| Cuba..... | 1,571 | 1,684 | 10,655 | 367 | 1,845 | 13,159 |
| Dominican Republic..... | 176 | 165 | 3,827 | 245 | 186 | 4,554 |
| Mexico..... | 438 | 5,042 | 31,647 | 1,535 | 6,731 | 31,119 |
| Panama..... | 73 | 19 | 2,732 | 81 | 54 | 7,613 |
| Puerto Rico..... | 348 | 2,865 | 6,502 | 1,039 | 2,973 | 6,409 |
| South America¹ | 10,329 | 13,535 | 70,456 | 13,134 | 15,201 | 72,773 |
| British Guiana..... | 478 | 105 | 2,383 | 724 | 96 | 3,532 |
| Argentina..... | 504 | 2,789 | 3,540 | 112 | 2,960 | 3,111 |
| Brazil..... | 139 | 2,433 | 8,948 | 353 | 3,366 | 9,308 |
| Chile..... | 11 | 1,265 | 2,545 | 41 | 1,027 | 3,352 |
| Colombia..... | 2,115 | 3,506 | 17,071 | 967 | 2,851 | 13,771 |
| Peru..... | 631 | 1,464 | 3,907 | 4,286 | 1,440 | 5,612 |
| Venezuela..... | 2,505 | 1,550 | 26,700 | 3,545 | 2,399 | 28,391 |
| Northwestern Europe¹ | 490,209 | 417,761 | 198,532 | 605,626 | 395,628 | 229,396 |
| United Kingdom..... | 294,950 | 349,704 | 124,658 | 330,726 | 324,761 | 157,219 |
| Austria..... | 3,257 | 1,388 | 1,380 | 1,670 | 1,861 | 1,683 |
| Belgium and Luxembourg..... | 36,823 | 7,138 | 9,423 | 42,905 | 6,709 | 8,238 |
| France..... | 9,308 | 16,003 | 17,252 | 16,434 | 19,255 | 17,467 |
| Germany, Federal Republic..... | 53,681 | 23,646 | 13,424 | 91,746 | 27,084 | 15,267 |
| Ireland..... | 7,146 | 2,533 | 3,129 | 6,209 | 1,222 | 2,713 |
| Netherlands..... | 26,496 | 11,033 | 10,159 | 35,887 | 8,668 | 10,004 |
| Norway..... | 41,578 | 383 | 5,070 | 54,738 | 239 | 2,706 |
| Sweden..... | 1,003 | 2,028 | 4,591 | 2,712 | 1,931 | 3,251 |
| Switzerland..... | 14,835 | 2,970 | 7,834 | 21,349 | 3,212 | 8,975 |
| Southern Europe¹ | 11,853 | 14,159 | 17,233 | 18,922 | 19,468 | 13,163 |
| Italy..... | 6,811 | 10,145 | 10,697 | 14,202 | 15,267 | 8,276 |
| Spain..... | 57 | 2,585 | 1,568 | 261 | 2,727 | 2,065 |
| Eastern Europe¹ | 4,891 | 3,828 | 3,951 | 69,882 | 1,264 | 1,700 |
| Czechoslovakia..... | 34 | 461 | 567 | 24,373 | 73 | 111 |
| Poland..... | 3,447 | 540 | 17 | 17,788 | 113 | 17 |
| Union of Soviet Socialist Republics..... | — | 2,290 | 390 | 23,726 | 710 | 169 |
| Middle East | 2,622 | 2,417 | 7,069 | 2,056 | 2,728 | 7,203 |
| Other Asia¹ | 73,302 | 19,356 | 74,694 | 85,908 | 45,169 | 76,001 |
| India..... | 689 | 5,194 | 18,786 | 138 | 7,341 | 18,235 |
| Hong Kong..... | 750 | 782 | 5,722 | 946 | 793 | 5,287 |
| Pakistan..... | 9 | 564 | 5,628 | 1,595 | 16 | 8,891 |
| Japan..... | 71,498 | 10,481 | 8,913 | 82,852 | 34,728 | 10,290 |
| Philippines..... | 79 | 418 | 17,639 | 82 | 886 | 17,093 |
| Other Africa¹ | 10,298 | 18,606 | 46,458 | 10,034 | 15,104 | 57,695 |
| Federation of Rhodesia and Nyasaland..... | 380 | 2,523 | 1,419 | 698 | 2,382 | 1,599 |
| Union of South Africa..... | 9,285 | 13,751 | 32,990 | 8,915 | 10,623 | 45,079 |
| Oceania¹ | 2,590 | 29,095 | 55,016 | 1,571 | 20,585 | 49,379 |
| Australia..... | 2,355 | 24,185 | 31,942 | 1,406 | 15,234 | 31,108 |
| New Zealand..... | 72 | 3,003 | 19,269 | 29 | 3,071 | 14,894 |
| Totals, Exports | 1,154,571² | 1,515,244 | 1,611,969² | 1,512,776² | 1,549,829 | 1,727,140² |

¹ Includes other countries not specified. ² Revised: uranium ores and concentrates transferred from fully and chiefly manufactured to raw materials as of Jan. 1, 1957.

**18.—Imports according to Origin, by Group and Degree of Manufacture
1955 and 1956**

| Origin | 1955 | | | 1956 | | |
|-------------------------------------|----------------|---------------|---------------|----------------|---------------|---------------|
| | United Kingdom | United States | All Countries | United Kingdom | United States | All Countries |
| | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Farm Origin | | | | | | |
| CANADIAN FARM PRODUCTS—1 | | | | | | |
| Field Crops— | | | | | | |
| Raw materials..... | 522 | 94,539 | 103,194 | 1,333 | 122,457 | 131,830 |
| Partly manufactured..... | 62 | 6,558 | 7,659 | 114 | 12,079 | 12,948 |
| Fully or chiefly manufactured..... | 24,794 | 38,381 | 74,503 | 23,955 | 44,201 | 80,723 |
| Totals, Field Crops..... | 25,378 | 139,477 | 185,356 | 25,403 | 178,736 | 225,501 |
| Animal Husbandry— | | | | | | |
| Raw materials..... | 2,619 | 24,350 | 45,862 | 3,107 | 29,956 | 52,680 |
| Partly manufactured..... | 18,327 | 8,241 | 31,275 | 18,272 | 8,216 | 32,799 |
| Fully or chiefly manufactured..... | 50,492 | 16,730 | 91,472 | 59,349 | 19,238 | 105,202 |
| Totals, Animal Husbandry..... | 71,437 | 49,322 | 168,609 | 80,727 | 57,410 | 190,681 |
| All Canadian Farm Products— | | | | | | |
| Raw materials..... | 3,141 | 118,889 | 149,055 | 4,440 | 152,413 | 184,511 |
| Partly manufactured..... | 18,389 | 14,799 | 38,933 | 18,386 | 20,295 | 45,747 |
| Fully or chiefly manufactured..... | 75,286 | 55,111 | 165,976 | 83,304 | 63,439 | 185,925 |
| TOTALS, CANADIAN FARM PRODUCTS..... | 96,815 | 188,799 | 353,964 | 106,131 | 236,146 | 416,183 |
| FOREIGN FARM PRODUCTS—1 | | | | | | |
| Field Crops— | | | | | | |
| Raw materials..... | 1,065 | 97,865 | 250,830 | 2,135 | 82,799 | 250,557 |
| Partly manufactured..... | 1,623 | 13,199 | 78,126 | 598 | 15,221 | 83,188 |
| Fully or chiefly manufactured..... | 28,792 | 136,158 | 256,457 | 30,103 | 155,922 | 285,941 |
| Totals, Field Crops..... | 31,480 | 247,222 | 585,414 | 32,836 | 253,942 | 619,686 |
| Animal Husbandry— | | | | | | |
| Raw materials..... | 1,778 | 6,668 | 9,353 | 2,415 | 6,380 | 9,647 |
| Partly manufactured..... | 4 | 26 | 57 | — | 29 | 50 |
| Fully or chiefly manufactured..... | 527 | 7,174 | 10,766 | 427 | 8,051 | 12,365 |
| Totals, Animal Husbandry..... | 2,308 | 13,868 | 20,177 | 2,842 | 14,460 | 22,061 |
| All Foreign Farm Products— | | | | | | |
| Raw materials..... | 2,843 | 104,533 | 260,183 | 4,550 | 89,179 | 260,203 |
| Partly manufactured..... | 1,627 | 13,225 | 78,183 | 598 | 15,250 | 83,238 |
| Fully or chiefly manufactured..... | 29,319 | 143,332 | 267,224 | 30,530 | 163,973 | 298,306 |
| TOTALS, FOREIGN FARM PRODUCTS..... | 33,788 | 261,090 | 605,590 | 35,678 | 268,402 | 641,747 |
| ALL FARM PRODUCTS— | | | | | | |
| All Field Crops— | | | | | | |
| Raw materials..... | 1,587 | 192,403 | 354,024 | 3,468 | 205,255 | 382,387 |
| Partly manufactured..... | 1,685 | 19,757 | 85,785 | 713 | 27,300 | 96,136 |
| Fully or chiefly manufactured..... | 53,585 | 174,539 | 330,961 | 54,058 | 200,123 | 366,664 |
| Totals, All Field Crops..... | 56,858 | 386,699 | 770,769 | 58,239 | 432,678 | 845,187 |
| All Animal Husbandry— | | | | | | |
| Raw materials..... | 4,396 | 31,018 | 55,215 | 5,522 | 36,336 | 62,327 |
| Partly manufactured..... | 18,330 | 8,268 | 31,332 | 18,272 | 8,245 | 32,849 |
| Fully or chiefly manufactured..... | 51,019 | 23,905 | 102,239 | 59,776 | 27,289 | 117,567 |
| Totals, All Animal Husbandry..... | 73,746 | 63,190 | 188,785 | 83,570 | 71,870 | 212,742 |

For footnote, see end of table.

**18.—Imports according to Origin, by Group and Degree of Manufacture
1955 and 1956—concluded**

| Origin | 1955 | | | 1956 | | |
|-------------------------------------|----------------|------------------|------------------|----------------|------------------|------------------|
| | United Kingdom | United States | All Countries | United Kingdom | United States | All Countries |
| | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Farm Origin—concl. | | | | | | |
| All Farm Products— | | | | | | |
| Raw materials..... | 5,983 | 223,421 | 409,239 | 8,990 | 241,591 | 444,714 |
| Partly manufactured..... | 20,016 | 28,024 | 117,117 | 18,985 | 35,545 | 128,985 |
| Fully or chiefly manufactured..... | 104,605 | 198,444 | 433,200 | 113,834 | 227,411 | 484,231 |
| Totals, Farm Origin..... | 130,604 | 449,889 | 959,555 | 141,809 | 504,548 | 1,057,930 |
| Wildlife Origin | | | | | | |
| Raw materials..... | 1,021 | 8,893 | 11,376 | 853 | 7,676 | 10,071 |
| Partly manufactured..... | 139 | 2,161 | 2,367 | 47 | 2,494 | 2,664 |
| Fully or chiefly manufactured..... | 190 | 622 | 822 | 57 | 543 | 636 |
| Totals, Wildlife Origin..... | 1,350 | 11,677 | 14,566 | 958 | 10,713 | 13,371 |
| Marine Origin | | | | | | |
| Raw materials..... | 54 | 3,171 | 4,201 | 81 | 3,720 | 5,072 |
| Partly manufactured..... | — | — | 41,655 | — | — | — |
| Fully or chiefly manufactured..... | 375 | 6,133 | 10,093 | 399 | 4,730 | 13,993 |
| Totals, Marine Origin..... | 429 | 9,303 | 14,294 | 480 | 8,450 | 19,065 |
| Forest Origin | | | | | | |
| Raw materials..... | 2 | 10,013 | 10,176 | 2 | 15,289 | 15,598 |
| Partly manufactured..... | 36 | 37,576 | 41,655 | 26 | 48,342 | 53,140 |
| Fully or chiefly manufactured..... | 5,785 | 132,620 | 148,581 | 6,280 | 145,269 | 164,393 |
| Totals, Forest Origin..... | 5,822 | 180,209 | 200,413 | 6,306 | 208,900 | 233,131 |
| Mineral Origin | | | | | | |
| Raw materials..... | 4,788 | 185,510 | 432,471 | 3,404 | 219,392 | 520,698 |
| Partly manufactured..... | 19,147 | 45,558 | 73,644 | 24,732 | 78,080 | 116,409 |
| Fully or chiefly manufactured..... | 182,747 | 1,908,687 | 2,249,268 | 253,137 | 2,448,393 | 2,943,911 |
| Totals, Mineral Origin..... | 206,683 | 2,139,756 | 2,755,383 | 281,273 | 2,745,865 | 3,581,019 |
| Mixed Origin | | | | | | |
| Raw materials..... | 50 | 185 | 240 | — | 512 | 811 |
| Partly manufactured..... | 616 | 8,720 | 10,165 | 615 | 8,553 | 9,924 |
| Fully or chiefly manufactured..... | 54,978 | 652,439 | 757,754 | 53,238 | 674,125 | 790,198 |
| Totals, Mixed Origin..... | 55,644 | 661,344 | 768,160 | 53,853 | 683,190 | 800,933 |
| Recapitulation | | | | | | |
| Raw materials..... | 11,898 | 431,193 | 867,703 | 13,328 | 488,181 | 996,963 |
| Partly manufactured..... | 39,955 | 122,040 | 244,949 | 44,405 | 173,014 | 311,122 |
| Fully or chiefly manufactured..... | 348,679 | 2,898,945 | 3,599,718 | 426,946 | 3,500,472 | 4,397,363 |
| Grand Totals..... | 400,531 | 3,452,178 | 4,712,370 | 484,679 | 4,161,667 | 5,705,449 |

¹ In this classification the expression "Canadian Farm Products" refers to all commodities of which the basic raw materials are such as Canadian farms produce. "Foreign Farm Products" covers materials or commodities such as Canada does not produce in their original forms, e.g., cane sugar, tea, rubber, cotton, silk, etc.

² Less than \$500.

**19.—Exports according to Origin, by Group and Degree of Manufacture
1955 and 1956**

| Origin | 1955 | | | 1956 | | |
|-------------------------------------|----------------|---------------|---------------|----------------|---------------|---------------|
| | United Kingdom | United States | All Countries | United Kingdom | United States | All Countries |
| | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Farm Origin | | | | | | |
| CANADIAN FARM PRODUCTS—1 | | | | | | |
| Field Crops— | | | | | | |
| Raw materials..... | 231,492 | 80,962 | 551,192 | 257,245 | 109,494 | 758,780 |
| Partly manufactured..... | 2 | 3,445 | 7,966 | — | 3,663 | 8,617 |
| Fully or chiefly manufactured..... | 40,018 | 71,041 | 181,525 | 50,914 | 80,635 | 195,099 |
| Totals, Field Crops..... | 271,509 | 155,448 | 740,684 | 308,158 | 193,792 | 962,496 |
| Animal Husbandry— | | | | | | |
| Raw materials..... | 2,717 | 38,463 | 52,318 | 3,461 | 34,399 | 49,050 |
| Partly manufactured..... | 1,879 | 5,167 | 11,616 | 1,554 | 6,085 | 11,667 |
| Fully or chiefly manufactured..... | 4,191 | 21,971 | 44,957 | 5,495 | 19,998 | 43,245 |
| Totals, Animal Husbandry..... | 8,786 | 65,601 | 108,890 | 10,510 | 60,482 | 103,962 |
| All Canadian Farm Products— | | | | | | |
| Raw materials..... | 234,209 | 119,426 | 603,510 | 260,706 | 143,893 | 807,830 |
| Partly manufactured..... | 1,879 | 8,612 | 19,582 | 1,554 | 9,749 | 20,284 |
| Fully or chiefly manufactured..... | 44,208 | 93,011 | 226,482 | 56,409 | 100,632 | 238,344 |
| TOTALS, CANADIAN FARM PRODUCTS..... | 280,296 | 221,049 | 849,574 | 318,669 | 254,274 | 1,066,458 |
| FOREIGN FARM PRODUCTS—1 | | | | | | |
| Field Crops— | | | | | | |
| Raw materials..... | — | — | — | — | 310 | 310 |
| Partly manufactured..... | 191 | 1,944 | 2,342 | 62 | 1,864 | 2,425 |
| Fully or chiefly manufactured..... | 740 | 9,035 | 18,448 | 930 | 9,496 | 19,140 |
| Totals, Field Crops..... | 931 | 10,979 | 20,790 | 991 | 11,671 | 21,875 |
| Animal Husbandry— | | | | | | |
| Raw materials..... | — | — | — | — | — | — |
| Partly manufactured..... | — | — | — | — | — | — |
| Fully or chiefly manufactured..... | — | 6 | 10 | — | 3 | 4 |
| Totals, Animal Husbandry..... | — | 6 | 10 | — | 3 | 4 |
| All Foreign Farm Products— | | | | | | |
| Raw materials..... | — | — | — | — | 310 | 310 |
| Partly manufactured..... | 191 | 1,944 | 2,342 | 62 | 1,864 | 2,425 |
| Fully or chiefly manufactured..... | 740 | 9,041 | 18,458 | 930 | 9,499 | 19,144 |
| TOTALS, FOREIGN FARM PRODUCTS..... | 931 | 10,985 | 20,801 | 991 | 11,673 | 21,879 |
| ALL FARM PRODUCTS— | | | | | | |
| All Field Crops— | | | | | | |
| Raw materials..... | 231,492 | 80,962 | 551,192 | 257,245 | 109,805 | 759,090 |
| Partly manufactured..... | 192 | 5,389 | 10,309 | 62 | 5,527 | 11,042 |
| Fully or chiefly manufactured..... | 40,757 | 80,075 | 199,973 | 51,843 | 90,131 | 214,239 |
| Totals, All Field Crops..... | 272,441 | 166,427 | 761,474 | 309,150 | 205,462 | 984,371 |
| All Animal Husbandry— | | | | | | |
| Raw materials..... | 2,717 | 38,463 | 52,318 | 3,461 | 34,399 | 49,050 |
| Partly manufactured..... | 1,879 | 5,167 | 11,616 | 1,554 | 6,085 | 11,667 |
| Fully or chiefly manufactured..... | 4,191 | 21,977 | 44,967 | 5,495 | 20,001 | 43,249 |
| Totals, All Animal Husbandry..... | 8,786 | 65,608 | 108,901 | 10,510 | 60,485 | 103,966 |

For footnotes, see end of table.

**19.—Exports according to Origin, by Group and Degree of Manufacture
1955 and 1956—concluded**

| Origin | 1955 | | | 1956 | | |
|-------------------------------------|----------------|----------------------------|------------------------------|----------------|------------------------------|------------------------------|
| | United Kingdom | United States | All Countries | United Kingdom | United States | All Countries |
| | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Farm Origin—concluded | | | | | | |
| All Farm Products— | | | | | | |
| Raw materials..... | 234,209 | 119,426 | 603,510 | 260,706 | 144,203 | 808,140 |
| Partly manufactured..... | 2,070 | 10,556 | 21,924 | 1,615 | 11,612 | 22,709 |
| Fully or chiefly manufactured..... | 44,948 | 102,052 | 244,940 | 57,339 | 110,132 | 257,488 |
| Totals, Farm Origin..... | 281,227 | 232,034 | 870,375 | 319,660 | 265,947 | 1,088,337 |
| Wildlife Origin | | | | | | |
| Raw materials..... | 4,657 | 23,235 | 28,409 | 4,229 | 20,879 | 25,967 |
| Partly manufactured..... | 25 | 918 | 1,498 | 10 | 553 | 1,311 |
| Fully or chiefly manufactured..... | 7 | 413 | 440 | 3 | 491 | 528 |
| Totals, Wildlife Origin..... | 4,689 | 24,566 | 30,347 | 4,242 | 21,923 | 27,807 |
| Marine Origin | | | | | | |
| Raw materials..... | 18 | 75,039 | 76,123 | 1 | 79,176 | 80,417 |
| Partly manufactured..... | 26 | 654 | 680 | — | 601 | 601 |
| Fully or chiefly manufactured..... | 5,214 | 15,920 | 51,340 | 8,062 | 16,450 | 51,702 |
| Totals, Marine Origin..... | 5,258 | 91,612 | 128,144 | 8,063 | 96,227 | 132,720 |
| Forest Origin | | | | | | |
| Raw materials..... | 7,619 | 52,013 | 65,426 | 6,304 | 55,057 | 66,826 |
| Partly manufactured..... | 110,474 | 536,026 | 718,250 | 75,852 | 526,109 | 666,912 |
| Fully or chiefly manufactured..... | 39,918 | 633,384 | 737,761 | 53,190 | 667,826 | 780,843 |
| Totals, Forest Origin..... | 158,012 | 1,221,422 | 1,521,437 | 135,346 | 1,248,993 | 1,514,582 |
| Mineral Origin | | | | | | |
| Raw materials..... | 48,447 | 267,675 ³ | 378,530 ³ | 59,486 | 395,268 ³ | 529,621 ³ |
| Partly manufactured..... | 237,109 | 434,838 | 772,268 | 247,274 | 479,427 | 857,409 |
| Fully or chiefly manufactured..... | 16,225 | 173,592 | 358,641 | 17,636 | 174,923 | 371,032 |
| Totals, Mineral Origin..... | 301,781 | 876,105³ | 1,509,438³ | 324,396 | 1,049,618³ | 1,758,062³ |
| Mixed Origin | | | | | | |
| Raw materials..... | — | 2,572 | 2,574 | — | 1,803 | 1,805 |
| Partly manufactured..... | — | 411 | 624 | 9 | 611 | 887 |
| Fully or chiefly manufactured..... | 18,345 | 110,620 ³ | 218,847 ³ | 20,990 | 133,533 ³ | 265,546 ³ |
| Totals, Mixed Origin..... | 18,345 | 113,603³ | 222,044³ | 20,999 | 135,947³ | 268,239³ |
| Recapitulation | | | | | | |
| Raw materials..... | 294,950 | 539,959 ³ | 1,154,571 ³ | 330,726 | 696,387 ³ | 1,512,776 ³ |
| Partly manufactured..... | 349,704 | 983,403 | 1,515,244 | 324,761 | 1,018,914 | 1,549,829 |
| Fully or chiefly manufactured..... | 124,658 | 1,035,981 ³ | 1,611,969 ³ | 157,219 | 1,103,354 ³ | 1,727,140 ³ |
| Grand Totals..... | 769,313 | 2,559,343 | 4,281,784 | 812,706 | 2,818,655 | 4,789,746 |

¹ In this classification the expression "Canadian Farm Products" refers to commodities actually produced, in their original state, on Canadian farms. "Foreign Farm Products" covers materials or commodities such as Canada does not produce in their original forms, e.g., cane sugar, tea, rubber, cotton, silk, etc.

² Less than \$500.

³ Revised: uranium ores and concentrates transferred from Mixed Origin to Mineral Origin as of Jan. 1, 1957.

20.—Imports according to Purpose by Group 1955 and 1956

| Group and Purpose | 1955 | | | 1956 | | |
|--|----------------|------------------|------------------|----------------|------------------|------------------|
| | United Kingdom | United States | All Countries | United Kingdom | United States | All Countries |
| | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Producers' Materials | 155,092 | 890,281 | 1,469,626 | 203,162 | 1,120,409 | 1,866,963 |
| Farm Materials— | | | | | | |
| Fodders..... | 56 | 15,076 | 15,141 | 3 | 28,228 | 28,540 |
| Fertilizers..... | 154 | 11,088 | 13,094 | 162 | 11,797 | 13,750 |
| Seeds..... | 379 | 3,250 | 4,509 | 1,029 | 6,463 | 8,365 |
| Other..... | 805 | 9,968 | 12,027 | 1,020 | 10,373 | 13,080 |
| Totals, Farm Materials..... | 1,393 | 39,383 | 44,771 | 2,214 | 56,862 | 63,735 |
| Manufacturers' Materials— | | | | | | |
| Foods and beverages..... | 270 | 4,472 | 9,655 | 460 | 3,405 | 11,015 |
| Tobacco, smokers' supplies..... | — | 1,883 | 2,822 | — | 1,916 | 2,782 |
| Textile, clothing, cordage..... | 64,955 | 141,178 | 278,623 | 71,705 | 135,534 | 297,671 |
| Fur and leather goods..... | 7,214 | 29,910 | 42,713 | 8,307 | 29,985 | 44,620 |
| Sawmills..... | — | — | — | — | — | — |
| Rubber industries..... | 660 | 19,294 | 47,567 | 1,088 | 19,872 | 45,850 |
| Other manufactures..... | 62,184 | 522,694 | 871,040 | 85,863 | 664,402 | 1,112,212 |
| Totals, Manufacturers' Materials..... | 135,283 | 719,431 | 1,252,420 | 167,424 | 855,114 | 1,514,149 |
| Building and Construction Materials..... | 18,382 | 128,899 | 169,794 | 33,477 | 205,933 | 286,468 |
| Other Producers' Materials..... | 33 | 2,569 | 2,641 | 47 | 2,501 | 2,611 |
| Producers' Equipment | 68,199 | 844,294 | 953,853 | 90,498 | 1,129,982 | 1,284,428 |
| Farm..... | 4,664 | 177,921 | 186,475 | 4,472 | 231,920 | 241,555 |
| Commerce and industry..... | 63,535 | 666,373 | 767,379 | 86,027 | 898,062 | 1,042,873 |
| Fuel, Electricity and Lubricants | 3,792 | 198,071 | 248,572 | 2,512 | 222,890 | 277,148 |
| Fuel..... | 3,712 | 184,110 | 234,466 | 2,415 | 207,379 | 261,482 |
| Electricity..... | — | 679 | 679 | — | 562 | 562 |
| Lubricants..... | 80 | 13,282 | 13,428 | 97 | 14,948 | 15,105 |
| Transport | 46,739 | 558,208 | 613,939 | 48,732 | 603,298 | 672,095 |
| Road..... | 23,414 | 382,815 | 414,234 | 33,835 | 471,068 | 523,868 |
| Rail..... | 265 | 16,574 | 16,839 | 2,369 | 10,307 | 12,695 |
| Water..... | 870 | 9,951 | 11,360 | 709 | 9,891 | 11,304 |
| Aircraft..... | 22,190 | 148,868 | 171,506 | 11,819 | 112,032 | 124,227 |
| Auxiliary Materials for Commerce and Industry | 4,772 | 38,235 | 47,333 | 6,738 | 45,633 | 58,452 |
| Advertising material..... | 435 | 6,899 | 7,528 | 423 | 7,249 | 7,930 |
| Containers..... | 4,148 | 23,104 | 31,275 | 6,054 | 27,908 | 39,658 |
| Other..... | 190 | 8,232 | 8,530 | 262 | 10,476 | 10,864 |
| Consumer Goods | 89,448 | 513,647 | 912,236 | 94,755 | 565,973 | 1,001,452 |
| Foods..... | 12,565 | 155,077 | 317,419 | 13,087 | 178,564 | 348,200 |
| Beverages..... | 12,380 | 24,219 | 124,649 | 11,932 | 32,435 | 139,511 |
| Smokers' supplies..... | 415 | 3,234 | 4,130 | 549 | 3,130 | 4,343 |
| Clothing..... | 18,584 | 23,800 | 54,806 | 20,209 | 23,470 | 61,347 |
| Household goods..... | 30,513 | 153,714 | 206,956 | 31,355 | 169,802 | 228,785 |
| Jewellery, timepieces, etc..... | 1,946 | 10,586 | 29,189 | 2,189 | 9,811 | 31,795 |
| Books, educational supplies, etc..... | 3,829 | 57,291 | 66,031 | 5,183 | 59,554 | 70,393 |
| Recreational equipment, etc..... | 4,596 | 41,545 | 53,038 | 4,760 | 41,001 | 54,923 |
| Medical supplies, etc..... | 3,038 | 35,043 | 42,435 | 3,756 | 37,643 | 46,313 |
| Other..... | 1,582 | 9,138 | 13,583 | 1,735 | 10,564 | 15,843 |
| Munitions and War Stores, n.o.p. | 5,696 | 50,412 | 58,121 | 5,406 | 51,692 | 61,028 |
| Live Animals for Food | 1 | 1,027 | 1,028 | 3 | 1,898 | 1,901 |
| Unclassified | 26,793 | 358,004 | 407,663 | 32,674 | 419,891 | 451,952 |
| Totals, Imports | 400,531 | 3,452,178 | 4,712,370 | 484,679 | 4,161,667 | 5,705,449 |

¹ Less than \$500.

21.—Exports according to Purpose by Group 1955 and 1956

| Group and Purpose | 1955 | | | 1956 | | |
|--|----------------|------------------------------|----------------------------|----------------|------------------------------|------------------------------|
| | United Kingdom | United States | All Countries | United Kingdom | United States | All Countries |
| | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Producers' Materials | 703,757 | 2,073,813¹ | 3,396,921 | 734,886 | 2,293,448¹ | 3,833,469¹ |
| Farm Materials— | | | | | | |
| Fodders..... | 66,485 | 53,217 | 143,310 | 64,396 | 71,487 | 170,194 |
| Fertilizers..... | 52 | 45,152 | 56,877 | 14 | 42,331 | 49,641 |
| Seeds..... | 1,595 | 10,002 | 17,466 | 1,236 | 12,415 | 19,141 |
| Other..... | 2 | 1,577 | 1,594 | — | 1,643 | 1,722 |
| Totals, Farm Materials..... | 68,132 | 109,948 | 219,247 | 65,646 | 127,876 | 240,698 |
| Manufacturers' Materials— | | | | | | |
| Food and beverages..... | 148,274 | 11,558 | 339,216 | 176,850 | 20,239 | 515,368 |
| Tobacco, smokers' supplies..... | 22,332 | 8 | 26,555 | 12,824 | 13 | 17,332 |
| Textiles, clothing, cordage..... | 1,118 | 1,944 | 9,402 | 1,201 | 2,617 | 8,308 |
| Fur and leather goods..... | 7,953 | 30,962 | 47,539 | 7,541 | 29,575 | 46,369 |
| Sawmills..... | 772 | 2,625 | 4,444 | 1,422 | 2,394 | 4,851 |
| Rubber industries..... | 4 | 440 | 449 | — | 407 | 414 |
| Other manufactures..... | 379,326 | 1,595,501 ¹ | 2,295,521 ¹ | 425,509 | 1,813,455 ¹ | 2,608,923 ¹ |
| Totals, Manufacturers' Materials..... | 559,777 | 1,643,039 ¹ | 2,723,431 ¹ | 625,348 | 1,868,700 ¹ | 3,201,565 ¹ |
| Building and Construction Materials..... | 75,816 | 319,271 | 451,450 | 43,889 | 294,873 | 387,578 |
| Other Producers' Materials..... | 32 | 1,555 | 2,793 | 2 | 2,000 | 3,628 |
| Producers' Equipment | 8,542 | 139,354 | 213,678 | 10,032 | 144,131 | 224,770 |
| Farm..... | 287 | 76,506 | 91,378 | 362 | 69,451 | 84,249 |
| Commerce and industry..... | 8,255 | 62,848 | 122,300 | 9,670 | 74,680 | 140,521 |
| Fuel, Electricity and Lubricants | 4,288 | 19,830 | 26,422 | 3,154 | 29,777 | 37,625 |
| Fuel..... | 4,288 | 9,210 | 15,607 | 3,154 | 14,562 | 22,063 |
| Electricity..... | — | 10,613 | 10,616 | — | 15,193 | 15,195 |
| Lubricants..... | — | 7 | 199 | — | 22 | 368 |
| Transport | 507 | 23,669 | 89,089 | 389 | 35,143 | 121,395 |
| Road..... | 319 | 3,991 | 48,338 | 233 | 4,125 | 49,818 |
| Rail..... | — | 223 | 14,680 | — | 737 | 13,575 |
| Water..... | 2 | 1,965 | 6,166 | 2 | 1,670 | 8,456 |
| Aircraft..... | 188 | 17,490 | 19,906 | 157 | 28,611 | 49,545 |
| Auxiliary Materials for Commerce and Industry | 801 | 5,184 | 10,984 | 765 | 5,889 | 11,358 |
| Containers..... | 801 | 5,183 | 10,868 | 764 | 5,887 | 11,250 |
| Other..... | — | 1 | 116 | 2 | 1 | 107 |
| Consumer Goods | 36,864 | 221,383 | 395,643 | 44,097 | 235,097 | 409,039 |
| Foods..... | 33,649 | 143,777 | 286,905 | 40,000 | 145,397 | 286,138 |
| Beverages..... | 889 | 58,283 | 66,056 | 1,173 | 66,628 | 74,724 |
| Smokers' supplies..... | 65 | 24 | 445 | 70 | 30 | 342 |
| Clothing..... | 851 | 3,568 | 6,728 | 1,021 | 3,999 | 7,314 |
| Household goods..... | 98 | 1,836 | 8,292 | 428 | 2,067 | 8,817 |
| Jewellery, timepieces, etc..... | 47 | 55 | 864 | 55 | 150 | 1,224 |
| Books, educational supplies, etc..... | 492 | 3,952 | 8,341 | 608 | 4,866 | 9,454 |
| Recreational equipment, etc..... | 586 | 8,323 | 11,620 | 538 | 9,580 | 13,320 |
| Medical supplies, etc..... | 173 | 1,483 | 5,976 | 176 | 2,187 | 7,155 |
| Other..... | 13 | 81 | 416 | 28 | 193 | 570 |
| Munitions and War Stores, n.o.p. | 2 | 6,869 | 7,694 | 10 | 24 | 853 |
| Live Animals for Food | — | 4,994 | 5,137 | — | 1,058 | 1,165 |
| Unclassified | 14,551 | 64,247¹ | 136,216¹ | 19,374 | 74,087¹ | 150,072¹ |
| Totals, Exports | 769,313 | 2,559,343 | 4,281,784 | 812,706 | 2,818,655 | 4,789,746 |

¹ Revised: uranium ores and concentrates transferred from unclassified to producers' materials as of Jan. 1, 1957.

² Less than \$500.

Section 6.—Comparison of Value, Price and Volume of Foreign Trade

In the postwar period there has been a substantial increase in the value of Canada's exports and imports. Changes in the value of trade, however, are the joint product of changes in the volume of goods traded and of the prices at which transactions are conducted. To assess the significance of value changes it is desirable to isolate the contributions made to them by the price and volume factors.

Special indexes of export and import prices have been developed to provide this information. These indexes are based chiefly on unit values (average prices) calculated from the trade statistics, supplemented by information on wholesale and retail prices. Price relatives are calculated for a sample of commodities representing the greater part of export and import trade, and these relatives are weighted by the percentage of 1948 trade represented by each commodity in the sample in obtaining group and total indexes. By dividing these price indexes into the trade values the effects of price change are removed from the values, or by dividing the price index into an index of values on the same time-base an index is obtained showing changes in the volume of trade from year to year.

The grouping of commodities used in these calculations differs slightly from that of the regular trade statistics, changes being desirable to simplify the pricing problem. The chief difference is that the first two main groups of the trade statistics have been combined into one group, "agricultural and animal products", and that the sub-group "rubber and its products" has been transferred from this group to the "miscellaneous group".

The import totals differ from those usually published by the exclusion of certain goods brought into Canada by the governments of the United Kingdom and other NATO countries for the use of their defence forces. Table 22 shows the value of trade adjusted for pricing purposes, and the value, price and volume indexes of Canadian trade for 1953-56. In the period covered by this table there was relatively little change in import prices; they remained at around the level of 1952 to which they fell from a sharp peak in 1951. Export prices, also at a record level in 1951, declined gradually during the following three years but turned upward in 1955. The role of somewhat lower prices in accentuating a volume decline of about the same magnitude is illustrated for exports in 1954. But in 1955 and 1956 it was higher volume that contributed most to the significant value gains of both exports and imports.

22.—Declared Values, and Value, Price and Physical Volume Indexes of Foreign Trade by Commodity Group 1953-56

| Commodity Group ¹ | 1953 | 1954 | 1955 | 1956 |
|---|------------------|------------------|------------------|------------------|
| DECLARED VALUES | | | | |
| | \$'000 | \$'000 | \$'000 | \$'000 |
| Declared Values of Imports | 4,382,830 | 4,093,196 | 4,712,370 | 5,705,449 |
| Agricultural and animal products..... | 526,025 | 579,962 | 600,292 | 673,870 |
| Fibres and textiles..... | 387,115 | 333,324 | 381,613 | 416,390 |
| Wood products and paper..... | 154,445 | 158,912 | 188,431 | 220,279 |
| Iron and steel and products..... | 1,521,044 | 1,312,976 | 1,597,472 | 2,221,640 |
| Non-ferrous metals and products..... | 376,170 | 368,638 | 411,512 | 503,327 |
| Non-metallic minerals and products..... | 654,524 | 594,638 | 659,171 | 760,785 |
| Chemicals and fertilizer..... | 225,785 | 224,984 | 265,012 | 293,772 |
| Miscellaneous..... | 507,986 | 494,755 | 563,504 | 566,081 |
| Totals, Adjusted Imports ² | 4,353,094 | 4,068,190 | 4,667,007 | 5,656,145 |
| Imports for use of U.K. and NATO Governments..... | 29,736 | 25,006 | 45,363 | 49,304 |

For footnotes, see end of table, p. 1044.

22.—Declared Values, and Value, Price and Physical Volume Indexes of Foreign Trade by Commodity Group 1953-56—concluded

| Commodity Group ¹ | 1953 | 1954 | 1955 | 1956 |
|---|------------------|------------------|------------------|------------------|
| DECLARED VALUES—concluded | | | | |
| | \$'000 | \$'000 | \$'000 | \$'000 |
| Declared Values of Exports² | 4,117,406 | 3,881,272 | 4,281,784 | 4,789,746 |
| Agricultural and animal products | 1,339,348 | 1,062,206 | 1,006,146 | 1,225,876 |
| Fibres and textiles | 24,333 | 20,969 | 22,816 | 22,568 |
| Wood products and paper | 1,295,396 | 1,378,354 | 1,520,921 | 1,514,458 |
| Iron and steel and products | 376,891 | 307,537 | 402,957 | 465,712 |
| Non-ferrous metals and products ⁴ | 682,183 | 717,072 | 852,923 | 959,471 |
| Non-metallic minerals and products | 147,393 | 145,573 | 206,200 | 292,100 |
| Chemicals and fertilizer ⁴ | 137,885 | 153,238 | 183,507 | 182,854 |
| Miscellaneous | 113,977 | 96,323 | 86,314 | 126,707 |
| VALUE INDEXES (1948=100) | | | | |
| Imports² | 165.2 | 154.4 | 177.1 | 214.7 |
| Agricultural and animal products | 130.5 | 143.9 | 149.0 | 167.2 |
| Fibres and textiles | 110.4 | 95.1 | 108.8 | 118.8 |
| Wood products and paper | 218.9 | 225.3 | 267.1 | 312.2 |
| Iron and steel and products | 194.2 | 167.6 | 203.9 | 283.6 |
| Non-ferrous metals and products | 240.5 | 235.7 | 263.1 | 321.8 |
| Non-metallic minerals and products | 108.5 | 98.6 | 109.3 | 126.1 |
| Chemicals and fertilizer | 186.2 | 185.5 | 218.5 | 242.2 |
| Miscellaneous | 347.9 | 338.9 | 386.0 | 387.7 |
| Domestic Exports³ | 133.9 | 126.2 | 139.2 | 155.7 |
| Agricultural and animal products | 128.1 | 101.6 | 96.2 | 117.3 |
| Fibres and textiles | 53.4 | 46.0 | 50.1 | 49.5 |
| Wood products and paper | 135.8 | 144.5 | 159.5 | 158.8 |
| Iron and steel and products | 103.9 | 84.7 | 111.0 | 128.3 |
| Non-ferrous metals and products ⁴ | 172.3 | 181.1 | 215.4 | 242.3 |
| Non-metallic minerals and products | 155.3 | 153.4 | 217.2 | 307.7 |
| Chemicals and fertilizer ⁴ | 172.7 | 191.9 | 229.8 | 229.0 |
| Miscellaneous | 117.4 | 99.2 | 88.9 | 130.5 |
| PRICE INDEXES (1948=100) | | | | |
| Imports² | 109.4 | 109.5 | 110.5 | 113.0 |
| Agricultural and animal products | 97.4 | 104.4 | 99.8 | 99.9 |
| Fibres and textiles | 100.4 | 99.8 | 95.5 | 89.2 |
| Wood products and paper | 117.1 | 117.5 | 119.4 | 123.8 |
| Iron and steel and products | 120.1 | 120.4 | 125.2 | 133.2 |
| Non-ferrous metals and products | 119.7 | 120.4 | 124.8 | 132.8 |
| Non-metallic minerals and products | 104.8 | 102.1 | 100.6 | 102.0 |
| Chemicals and fertilizer | 109.4 | 108.1 | 109.9 | 111.7 |
| Miscellaneous | 111.0 | 105.3 | 119.7 | 118.3 |
| Domestic Exports³ | 118.3 | 115.1 | 117.7 | 121.3 |
| Agricultural and animal products | 103.5 | 96.8 | 96.5 | 95.7 |
| Fibres and textiles | 114.1 | 108.6 | 106.4 | 108.7 |
| Wood products and paper | 118.3 | 118.3 | 118.0 | 120.1 |
| Iron and steel and products | 134.2 | 132.3 | 134.8 | 143.1 |
| Non-ferrous metals and products | 135.0 | 134.6 | 149.4 | 165.0 |
| Non-metallic minerals and products | 149.5 | 150.2 | 149.9 | 156.1 |
| Chemicals and fertilizer ⁴ | 117.1 | 115.0 | 114.8 | 114.0 |
| Miscellaneous | 123.6 | 123.5 | 125.2 | 126.6 |
| VOLUME INDEXES (1948=100) | | | | |
| Imports² | 151.0 | 141.0 | 160.3 | 190.0 |
| Agricultural and animal products | 134.0 | 137.8 | 149.3 | 167.4 |
| Fibres and textiles | 110.0 | 95.3 | 113.9 | 133.2 |
| Wood products and paper | 186.9 | 191.7 | 223.7 | 252.2 |
| Iron and steel and products | 161.7 | 139.2 | 162.9 | 212.9 |
| Non-ferrous metals and products | 200.9 | 195.8 | 210.8 | 242.3 |
| Non-metallic minerals and products | 103.5 | 96.6 | 108.6 | 123.6 |
| Chemicals and fertilizer | 170.2 | 171.6 | 198.8 | 216.8 |
| Miscellaneous | 313.4 | 321.8 | 322.5 | 327.7 |

For footnotes, see end of table, p. 1044.

**22.—Declared Values, and Value, Price and Physical Volume Indexes of Foreign Trade
by Commodity Group 1953-56—concluded**

| Commodity Group ¹ | 1953 | 1954 | 1955 | 1956 |
|--|--|--------------|--------------|--------------|
| | VOLUME INDEXES—concluded (1948=100) | | | |
| Domestic Exports² | 113.2 | 109.6 | 118.3 | 128.4 |
| Agricultural and animal products..... | 123.8 | 105.0 | 99.7 | 122.6 |
| Fibres and textiles..... | 46.8 | 42.4 | 47.1 | 45.5 |
| Wood products and paper..... | 114.8 | 124.2 | 135.2 | 132.2 |
| Iron and steel and products..... | 77.4 | 64.0 | 82.3 | 89.7 |
| Non-ferrous metals and products ⁴ | 127.6 | 134.5 | 144.2 | 146.8 |
| Non-metallic minerals and products..... | 103.9 | 102.1 | 144.9 | 197.1 |
| Chemicals and fertilizer ⁴ | 147.5 | 166.9 | 200.2 | 200.9 |
| Miscellaneous..... | 95.0 | 80.3 | 71.0 | 103.1 |

¹ Groups, though classified by component material, differ slightly from conventional groups (see text, p. 1042).

² Excludes imports for the use of the United Kingdom and other NATO Governments.

³ Excludes exports of foreign produce. ⁴ Revised for 1954 to 1956: uranium ores and concentrates transferred from chemicals to non-ferrous metals as of Jan. 1, 1957.

PART III.—EXTERNAL TRANSACTIONS*

Section 1.—Canadian Balance of International Payments

A summary of Canada's total commercial and financial transactions with other countries is presented in statements of the Canadian Balance of International Payments. The current account statement, covering all current exchanges of goods and services, indicates the main categories of transactions giving rise to receipts from and expenditures abroad, and the extent to which these are out of balance. The capital account presents an analysis of the movements of short-term and long-term capital that have occurred during a comparable period.

Each year since 1950, with the exception of 1952, Canada's current expenditures abroad exceeded external current receipts. The resulting current account deficits that occurred in this period of rapid Canadian development were financed by inflows of capital. Current account deficits have customarily been associated with periods of Canadian prosperity and once again the rate of recent Canadian growth with the development of new resources has been the underlying element in the strength of Canadian demands for imported goods and services. High levels of investment at a time when defence expenditures were also very heavy, together with rising levels of consumption, contributed to the deficits. Before 1955 the deficits in recent years were not large in proportion to the high levels of total current transactions and, until then, capital inflows of a long-term type were large enough to finance the deficits in most periods. But in 1955 the current deficit rose to \$698,000,000, and this deficit was substantially more than the net inflow of long-term capital. In 1956, as the result of continuing high levels of investment and consumption, the deficit rose to the unprecedented peak of \$1,372,000,000. At the same time, inflows of capital in long-term forms more than tripled those of the previous year and were almost sufficient to finance the record deficit.

* Prepared in the Balance of Payments Section, International Trade Division, Dominion Bureau of Statistics. More detailed information is given in the annual and quarterly publications *Canadian Balance of International Payments*, and in *Canada's International Investment Position*.

Current Account Transactions.—The relatively stable current account deficits of some \$400,000,000 in 1953 and 1954, were followed by a widening of such deficits to \$698,000,000 in 1955 and \$1,372,000,000 in 1956. The growth in the deficit over these two years of rapid expansion in the Canadian economy was primarily related to a larger imbalance on merchandise trade. Of the \$940,000,000 rise in the deficit between 1954 and 1956, almost \$750,000,000 was the result of larger net payments for imported commodities, and the remainder reflected growth in the non-merchandise or 'invisible' items. From the end of the War until 1955, there was a relatively consistent pattern of surpluses on adjusted merchandise trade transactions,* and some of these surpluses were substantial. The pattern was broken only in 1951 and 1953, and the 1953 deficit of \$58,000,000 was replaced by a small surplus in 1954, with exports contracting relatively less than imports as economic activity slackened in that year. Towards the end of 1954, however, the slow-down came to an end, and a period of unprecedented growth and development began.

The deficit on merchandise transactions grew to \$211,000,000 in 1955 and \$734,000,000 in 1956, largely as a result of \$2,200,000,000 additional imports. The expansionary forces that were evident throughout the two years permeated almost every area of economic activity but the major area of expansion and development was investment. During 1955 and 1956, public and private domestic investment increased by 13 p.c. and 24 p.c., respectively. This rise included utility and resource development, machinery and equipment for manufacturing and service industries, including government investment expenditures on highways, and services incidental to the growth in house building. In recent years a large part of the equipment and supplies for Canada's investment program has been obtained from the United States. In 1955 and 1956 the record levels of expenditure in this sector resulted in tremendous growth of imports of machinery, equipment and construction materials, and of raw materials for the Canadian capital goods industries. At the same time, high levels of personal income and consumption resulted in larger imports of consumer goods, and materials and supplies for Canadian industry producing consumer goods. Gains in almost every phase of the economy in 1955 and 1956 exerted heavy pressure on Canadian productive capacity, and shortfalls in the face of these demands were met for the most part with imported goods, largely from the United States.

At the same time, economic activity over these two years grew apace in most countries, including such important markets for Canadian production as the United States, the United Kingdom and Western Europe. In the two years Canadian exports increased by about \$400,000,000 and \$900,000,000 respectively; gains in a large number of traditional export categories were accompanied by some extraordinary increases. Exports of grain in 1956 were exceptionally large as a result of shortages in local supplies in Western Europe. In addition, there were marked advances in exports of some raw materials following increased productive capacity.

Export and import prices rose almost 7 and 4 p.c., respectively, during 1955 and 1956 and, as a result, the terms of trade became slightly more favourable.

There was also a significant and persistent advance in the deficit on non-merchandise account although this was smaller than on commodity trade. From \$445,000,000 in 1954 this deficit, from a wide range of transactions in services with other countries, rose to \$487,000,000 in 1955 and to \$638,000,000 in 1956. The over-all expansionary influences of a fast-growing economy were evinced by increased payments abroad in 1955 and 1956 for the whole range of invisible imports; the most notable of these were for travel by Canadians outside of Canada, interest and dividend payments on the growing amount of foreign capital invested in Canada, freight and shipping, and business and other miscellaneous services. Another group of rising expenditures abroad included the cost to the

* The adjustments from commodity trade statistics to merchandise imports and exports for balance of payments purposes include a variety of non-commercial items such as settlers' effects, and bequests and donations in kind, items covered elsewhere in the balance of payments such as tourists' imports and exports, and a variety of special items including defence imports for the account of governments of other countries.

Federal Government of maintaining armed forces in Europe as part of Canada's contribution to the North Atlantic Treaty Organization defence plans, and goods and services financed by Canada's contribution to the Colombo Plan. In addition, there was a marked growth in overseas remittances from Canada, particularly by recent immigrants from Western Europe. By the end of 1956, total immigration to Canada in the postwar years had reached 1,400,000.

At the same time, there were increased receipts of migrants' funds as the result of a large inflow of immigrants to Canada in 1956. Total receipts for non-merchandise transactions also rose over the two years, although not as much as payments. The major increases were for freight and shipping services, particularly earnings of inland freight on new exports of bulk commodities, and for expenditures by the United States on defence establishments in Canada.

An important feature of the growth of Canada's current account deficit in 1955 and 1956 was the growth in the deficit with the United States. The deficit with all countries increased by about \$940,000,000 from 1954 to 1956; the deficit with the United States rose by \$833,000,000. The predominant role played by the United States reflected the growth in imports of investment and consumer goods, and in larger payments by Canadians for non-merchandise items. These included expenditures for travel, substantially larger remittances of interest and dividends arising in part from an increased non-resident participation in Canadian equity capital, and larger net payments for freight and shipping services.

The bilateral account with overseas countries showed a decline in surplus from \$375,000,000 in 1954 to \$268,000,000 in 1956. These totals conceal a variety of divergent movements. In 1955, the surplus with the United Kingdom rose by almost \$100,000,000 to \$330,000,000, largely as a result of increased exports from Canada. By 1956 most of this increase in surplus over 1954 had disappeared as a result of increased merchandise imports, particularly investment goods, a dropping off in exports of lumber to the United Kingdom, and larger net payments for non-merchandise items. The surplus with the remainder of the Sterling Area changed little from 1954 to 1956, although there was a notable rise in exports to Commonwealth countries in 1955, which somewhat increased the surplus in that year.

The surplus with other OEEC (Organization for European Economic Co-operation) countries declined from \$93,000,000 in 1954 to \$12,000,000 in 1956. There were roughly comparable absolute increases in both exports and imports from this group of countries, stimulated by high levels of activity both in Canada and overseas. The decline in the surplus relates to increased net payments for a majority of non-merchandise transactions, including travel expenditure, remittances of investment income, payments for freight and shipping services, other miscellaneous payments for services, and government defence expenditures abroad in connection with Canada's participation in NATO. In addition to the above direct military expenditures, there was Canada's contribution of Mutual Aid to NATO countries, which amounted to some \$222,000,000 in 1955 and \$157,000,000 in 1956, bringing the total contribution from 1950 to over \$1,300,000,000. Being a contribution of military aid in this form, Mutual Aid has not been taken into the current account balance, although the item may be included as a credit for exports and offset by a debit representing the contribution.

The small surplus with other overseas countries in 1954 became a deficit of \$79,000,000 in 1955 and \$36,000,000 in 1956. The major factor in this was the development of deficits on merchandise trade. In 1955 exports declined and imports rose; in 1956 both exports and imports rose but the export gains were relatively larger, and the deficit declined somewhat. At the same time there was a larger surplus on non-merchandise account, primarily as a result of increased income receipts.

Capital Movements.—The forms of capital movements that financed the greatly enlarged current deficits in 1955 and 1956, and the related monetary background, were quite different in the two years. The greatest of these changes was the wide fluctuation in the

net inflow of capital in long-term forms. These inflows declined to \$410,000,000 in 1955, less than 60 p.c. of the current account deficit, whereas in preceding years long-term inflows of capital were more than sufficient to finance current deficits. But again in 1956 long-term types of inflow rose sharply to some \$1,350,000,000 and financed almost all of the record-size deficit. Underlying influences affecting these changes included the greater inducements to borrow in the United States through the sale of new Canadian issues in capital markets there, as monetary pressures tightened towards the end of 1955 and intensified in 1956. Consequently, a great increase occurred in inflows to Canada from new issues of Canadian securities sold abroad along with reduced outflows for the repatriation of outstanding Canadian bonds held in the United States which had been prominent in 1955. But, at the same time, inflows of capital into equities in Canadian industry continued to grow in both years for direct investment in non-resident-controlled firms in Canada and for investment in outstanding Canadian stocks.

As a result of these developments, Canada obtained in 1955 additional physical resources from abroad to carry out an expanding investment program by falling back on an excess of long-term inflows over the postwar years. Short-term inflows of capital therefore played a more important part in financing the deficit in 1955 than in earlier years, or in the following year. A major part of the increase in short-term inflows in 1955 originated in the account with the United States. Of net inflows of \$425,000,000 from that country more than one-half were in short-term forms. The latter inflows included a rise in the holdings of Canadian dollars by non-residents, a reduction in official holdings of gold and foreign exchange, and changes in international commercial receivables and payables. Inflows from the United Kingdom reached a postwar peak at \$199,000,000 and the increase in inflows from that country in the year was largely the result of a drawing down of sterling balances previously acquired by Canadians.

In contrast, inflows of long-term capital in 1956 financed almost all of the current account deficit as the extraordinary rate of growth in the Canadian economy resulted in mounting pressures of demand for capital as well as goods and services. An unprecedented volume of capital investment, coupled with an already generally high level of economic activity, subjected the Canadian economy to special strains in 1956, and these had important effects on international capital movements. It has already been noted that the physical impact of these pressures was felt in the substantial deficits incurred on current account as the Canadian economy supplemented its own output with large net drafts on the goods and services of other countries. Strong pressures were also created on Canada's capital market, and there were sharp increases in interest rates. Higher interest rates were also characteristic of foreign capital markets but the differential between rates in Canada and the United States widened somewhat. This development contributed to a very large volume of financing abroad by provincial governments, municipalities and corporations. These inflows were superimposed on the persistent inflows in recent years for direct investment in foreign-controlled enterprises in Canada and for portfolio investment in Canadian equities, both of which reached new heights in 1956. For the year as a whole, the inflow for direct investment was placed at \$595,000,000. Transactions in Canadian securities led to a further inflow of \$748,000,000, which included \$265,000,000 of equities. These two groups of transactions alone added \$1,343,000,000 to Canadian external liabilities in long-term forms. In addition to other smaller long-term inflows such as foreign security sales and loan repayments, there was a \$110,000,000 outflow for direct investment abroad. This brought the total inflows of a long-term type to \$1,350,000,000, as compared with \$410,000,000 a year earlier.

Canadian direct investment abroad established a record at \$110,000,000. About 70 p.c. of the net movement was to the United States, and involved the acquisition of control over existing enterprises abroad, particularly in merchandising. In addition there was a disposition of Canadian interests in utilities in Latin America.

The United States continued to be the major source of long-term external capital for Canada in 1956. Indeed, the net movements in long-term forms were somewhat more than two-thirds from the United States in 1956 in contrast to just under one-half in 1955 when

there was a significant volume of repatriation of Canadian funded debt from that country. Although overshadowed by the size of the tremendous inflows of more than \$900,000,000 from the United States, which were about four times larger than in 1955, the movements in long-term forms in 1956 from the United Kingdom and from other overseas countries also rose sharply. While overseas countries have not, as a general rule, been an important source of debt capital for Canada for many years past, their demand for Canadian portfolio equities, together with some major direct investments in Canada and the placement of some new Canadian issues in European markets, brought the total inflow in long-term forms to more than \$425,000,000 for the year. This was more than double the figure for 1955 and was far in excess of any year since the commencement of regular official balance of payments statistics in 1926.

Again in contrast to 1955, there was a decline in 1956 in the Canadian dollar holdings of foreigners, and an increase in official holdings of gold and foreign exchange; all other capital movements in 1956 were, on balance, about half the net movement in the previous year. A great variety of transactions, mainly short-term in character, comprise this latter group. Although outflows were substantial they were more than offset by inflows. Among the outflows was a rise in Canadian holdings of short-term assets abroad. Inflows included borrowing by finance companies, other capital transfers by financial institutions and an apparently large rise in net payables on commercial account.

Closely related to the developments described above was the persistent strengthening in the exchange rate for the Canadian dollar during 1956 which contrasts with the weakening that occurred in 1955. The monthly trend in the value of the United States dollar in Canada for some years is presented in Table 3 of Part I of this Chapter.

Comments and statistics on the effects of the unprecedented capital inflows of recent years upon the ownership of investments in Canada will be found in the Section on Canada's International Investment Position in Chapter XXV.

1.—Current Account between Canada and All Countries 1937-56

(Millions of dollars)

| Year | Current Receipts ¹ | Current Payments ² | Net Balance including Mutual Aid Exports | Wartime Grants and Mutual Aid | Net Balance on Current Account indicating Net Movement of Capital |
|-------------------------|-------------------------------|-------------------------------|--|-------------------------------|---|
| 1937..... | 1,593 | 1,413 | +180 | — | +180 |
| 1938..... | 1,361 | 1,261 | +100 | — | +100 |
| 1939..... | 1,457 | 1,331 | +126 | — | +126 |
| 1940..... | 1,776 | 1,627 | +149 | — | +149 |
| 1941..... | 2,458 | 1,967 | +491 | — | +491 |
| 1942..... | 3,376 | 2,275 | +1,101 | -1,002 | +99 |
| 1943..... | 4,064 | 2,858 | +1,206 | -518 | +688 |
| 1944..... | 4,557 | 3,539 | +1,018 | -960 | +58 |
| 1945..... | 4,456 | 2,910 | +1,546 | -858 | +688 |
| 1946..... | 3,365 | 2,905 | +460 | -97 | +363 |
| 1947..... | 3,748 | 3,699 | +49 | — | +49 |
| 1948..... | 4,147 | 3,696 | +451 | — | +451 |
| 1949..... | 4,089 | 3,912 | +177 | — | +177 |
| 1950..... | 4,297 | 4,574 | -277 | -57 | -334 |
| 1951..... | 5,311 | 5,683 | -372 | -145 | -517 |
| 1952..... | 5,858 | 5,494 | +364 | -200 | +164 |
| 1953..... | 5,737 | 5,934 | -197 | -246 | -443 |
| 1954..... | 5,520 | 5,668 | -148 | -284 | -432 |
| 1955 ^a | 6,072 | 6,548 | -476 | -222 | -698 |
| 1956 ^b | 6,594 | 7,809 | -1,215 | -157 | -1,372 |

¹ Includes Mutual Aid exports.

² Excludes Mutual Aid offsets.

2.—Geographical Distribution of the Balance on Current Account between Canada and Other Countries 1937-56

NOTE.—In the years 1942-46 balances include exports of currently produced goods provided as Mutual Aid or Official Contributions. (See also Table 1.)

(Millions of Canadian dollars)

| Year | United States ¹ | United Kingdom ² | Other Overseas Countries ³ | All Countries | Year | United States ¹ | United Kingdom ² | Other Overseas Countries ³ | All Countries |
|-----------|----------------------------|-----------------------------|---------------------------------------|---------------|-------------------------|----------------------------|-----------------------------|---------------------------------------|---------------|
| 1937..... | -77 | +135 | +122 | +180 | 1947..... | -1,134 | +633 | +550 | +49 |
| 1938..... | -149 | +127 | +122 | +100 | 1948..... | -393 | +486 | +358 | +451 |
| 1939..... | -116 | +137 | +105 | +126 | 1949..... | -601 | +446 | +332 | +177 |
| 1940..... | -292 | +343 | +98 | +149 | 1950..... | -400 | +24 | +42 | -334 |
| 1941..... | -318 | +734 | +75 | +491 | 1951..... | -951 | +223 | +211 | -517 |
| 1942..... | -180 | +1,223 | +58 | +1,101 | 1952..... | -849 | +388 | +625 | +164 |
| 1943..... | -19 | +1,149 | +76 | +1,206 | 1953..... | -904 | +133 | +328 | -443 |
| 1944..... | +31 | +746 | +241 | +1,018 | 1954..... | -807 | +229 | +146 | -432 |
| 1945..... | +36 | +747 | +763 | +1,546 | 1955 ^a | -1,035 | +330 | +7 | -698 |
| 1946..... | -607 | +500 | +567 | +460 | 1956 ^a | -1,640 | +254 | +14 | -1,372 |

¹ Includes all net exports of non-monetary gold.

² Excludes wheat exports diverted to other overseas countries and exports of gold.

³ Includes estimated value of wheat sold in European countries.

3.—Balance of International Payments between Canada and All Countries 1951-56

(Millions of dollars)

| Item | 1951 | 1952 | 1953 | 1954 | 1955 | 1956 ^a |
|---|--------------|--------------|--------------|--------------|--------------|-------------------|
| A. CURRENT RECEIPTS— | | | | | | |
| Merchandise exports (adjusted)..... | 3,950 | 4,339 | 4,152 | 3,929 | 4,332 | 4,833 |
| Mutual Aid to NATO countries..... | 145 | 200 | 246 | 284 | 222 | 157 |
| Gold production available for export..... | 150 | 150 | 144 | 155 | 155 | 150 |
| Tourist and travel expenditure..... | 274 | 275 | 302 | 305 | 328 | 336 |
| Interest and dividends..... | 115 | 145 | 165 | 147 | 160 | 140 |
| Freight and shipping..... | 351 | 383 | 318 | 313 | 398 | 450 |
| All other current credits..... | 326 | 366 | 410 | 387 | 477 | 528 |
| TOTALS, CURRENT RECEIPTS..... | 5,311 | 5,858 | 5,737 | 5,520 | 6,072 | 6,594 |
| B. CURRENT PAYMENTS— | | | | | | |
| Merchandise imports (adjusted)..... | 4,097 | 3,850 | 4,210 | 3,916 | 4,543 | 5,567 |
| Tourist and travel expenditure..... | 280 | 341 | 365 | 389 | 449 | 498 |
| Interest and dividends..... | 450 | 413 | 404 | 423 | 483 | 530 |
| Freight and shipping..... | 354 | 375 | 374 | 356 | 415 | 498 |
| Official contributions ¹ | 154 | 216 | 271 | 295 | 246 | 187 |
| All other current debits..... | 493 | 499 | 556 | 573 | 634 | 686 |
| TOTALS, CURRENT PAYMENTS..... | 5,828 | 5,694 | 6,180 | 5,952 | 6,770 | 7,966 |
| C. CURRENT ACCOUNT BALANCE..... | -517 | +164 | -443 | -432 | -698 | -1,372 |
| D. CAPITAL ACCOUNT— | | | | | | |
| Direct Investment— | | | | | | |
| Direct investment in Canada..... | +309 | +346 | +426 | +392 | +417 | +595 |
| Direct investment abroad..... | -20 | -77 | -63 | -81 | -74 | -110 |
| Canadian Securities— | | | | | | |
| Trade in outstanding issues..... | +38 | -94 | -31 | +63 | -27 | +207 |
| New issues..... | +411 | +316 | +335 | +331 | +166 | +681 |
| Retirements..... | -184 | -89 | -146 | -203 | -184 | -140 |
| Foreign security transactions..... | +15 | -8 | - | -24 | -6 | +12 |
| Repayments on Government of Canada war and postwar loans..... | +68 | +56 | +87 | +72 | +69 | +69 |
| Change in Canadian dollar holdings of foreigners..... | -192 | -66 | -18 | +34 | +89 | -26 |
| Change in official holdings of gold and foreign exchange (increase, minus)..... | -56 | -37 | +38 | -124 | +44 | -33 |
| Other capital movements ² | +128 | -511 | -185 | -28 | +204 | +117 |
| E. NET CAPITAL MOVEMENT..... | +517 | -164 | +443 | +432 | +698 | +1,372 |

¹ Includes Mutual Aid to NATO countries. omissions.

² Includes unrecorded capital movements, and errors and

4.—Current and Capital Account Transactions between Canada and the United States 1951-56

(Millions of dollars)

| Item | 1951 | 1952 | 1953 | 1954 | 1955 | 1956 ^p |
|---|--------------|---------------|--------------|--------------|---------------|-------------------|
| A. CURRENT RECEIPTS— | | | | | | |
| Merchandise exports (adjusted)..... | 2,326 | 2,346 | 2,458 | 2,355 | 2,598 | 2,850 |
| Net exports of non-monetary gold..... | 150 | 150 | 144 | 155 | 155 | 150 |
| Travel expenditure..... | 258 | 257 | 282 | 283 | 303 | 308 |
| Interest and dividends..... | 57 | 85 | 101 | 69 | 78 | 75 |
| Freight and shipping..... | 164 | 174 | 164 | 169 | 203 | 220 |
| All other current receipts..... | 223 | 262 | 294 | 275 | 363 | 395 |
| TOTALS, CURRENT RECEIPTS..... | 3,178 | 3,274 | 3,443 | 3,306 | 3,700 | 3,998 |
| B. CURRENT PAYMENTS— | | | | | | |
| Merchandise imports (adjusted)..... | 2,842 | 2,817 | 3,046 | 2,800 | 3,283 | 4,023 |
| Travel expenditure..... | 246 | 294 | 307 | 320 | 363 | 391 |
| Interest and dividends..... | 382 | 344 | 334 | 345 | 388 | 433 |
| Freight and shipping..... | 276 | 302 | 296 | 261 | 287 | 350 |
| All other current payments..... | 383 | 366 | 364 | 387 | 414 | 441 |
| TOTALS, CURRENT PAYMENTS..... | 4,129 | 4,123 | 4,347 | 4,113 | 4,735 | 5,638 |
| C. CURRENT ACCOUNT BALANCE..... | -951 | -849 | -904 | -807 | -1,035 | -1,640 |
| D. CAPITAL ACCOUNT— | | | | | | |
| Direct Investment— | | | | | | |
| Direct investment in Canada..... | +270 | +319 | +346 | +288 | +306 | +409 |
| Direct investment abroad..... | -4 | -42 | -33 | -46 | -56 | -77 |
| Canadian Securities— | | | | | | |
| Trade in outstanding issues..... | +20 | -104 | -80 | — | -67 | +41 |
| New issues..... | +404 | +315 | +322 | +299 | +127 | +616 |
| Retirements..... | -159 | -75 | -132 | -184 | -169 | -133 |
| Foreign security transactions..... | +17 | +4 | +3 | +4 | +25 | +11 |
| Change in Canadian dollar holdings of foreigners..... | -53 | -37 | -1 | +19 | +66 | -49 |
| Change in official holdings of gold and foreign exchange (increase, minus)..... | -39 | -80 | +42 | -121 | +42 | -34 |
| Other capital movements ¹ | +59 | -458 | -223 | +18 | +151 | +152 |
| E. NET CAPITAL MOVEMENT..... | +515 | -158 | +244 | +277 | +425 | +936 |
| F. BALANCE SETTLED BY EXCHANGE TRANSFERS..... | +436 | +1,007 | +660 | +530 | +610 | +704 |
| TOTALS, FINANCING OF CURRENT ACCOUNT BALANCE..... | +951 | +849 | +904 | +807 | +1,035 | +1,640 |

¹ Includes unrecorded capital movements, and errors and omissions.

5.—Current Account Transactions between Canada and the United Kingdom 1951-56

(Millions of dollars)

| Item | 1951 | 1952 | 1953 | 1954 | 1955 | 1956 ^p |
|--|-------------|-------------|-------------|-------------|-------------|-------------------|
| A. CURRENT RECEIPTS— | | | | | | |
| Merchandise exports (adjusted)..... | 636 | 727 | 656 | 660 | 772 | 818 |
| Travel expenditure..... | 8 | 10 | 12 | 13 | 13 | 14 |
| Interest and dividends..... | 30 | 29 | 28 | 35 | 41 | 20 |
| Freight and shipping..... | 91 | 105 | 79 | 73 | 97 | 98 |
| All other current receipts..... | 56 | 54 | 55 | 55 | 59 | 64 |
| TOTALS, CURRENT RECEIPTS..... | 821 | 925 | 830 | 836 | 982 | 1,014 |
| B. CURRENT PAYMENTS— | | | | | | |
| Merchandise imports (adjusted)..... | 417 | 350 | 463 | 391 | 406 | 493 |
| Travel expenditure..... | 20 | 27 | 31 | 35 | 40 | 46 |
| Interest and dividends..... | 57 | 56 | 57 | 62 | 75 | 72 |
| Freight and shipping..... | 43 | 42 | 42 | 39 | 49 | 58 |
| All other current payments..... | 61 | 62 | 104 | 80 | 82 | 91 |
| TOTALS, CURRENT PAYMENTS..... | 598 | 537 | 697 | 607 | 652 | 760 |
| C. CURRENT ACCOUNT BALANCE..... | +223 | +388 | +133 | +229 | +330 | +254 |

Section 2.—Travel between Canada and Other Countries

A new record was set in volume of travel between Canada and other countries in 1956. Visits to Canada by residents of other countries numbered 27,700,000 while Canadians reciprocated with 27,200,000 visits to other countries. The volume of all travel amounted to 54,900,000 visits as compared with 53,200,000 visits in 1955, an increase of approximately 3 p.c.; the 1955 increase over 1954 was nearly 7 p.c.

While the increase in the number of Canadians travelling to other countries in 1956 was about 2,400,000 or 9 p.c. as compared with 1955, which in turn was 1,500,000 over 1954, the entries into Canada by residents of other countries declined by 614,300 or nearly 2 p.c. This included approximately 616,900 fewer visits from the United States but 2,600 additional entries direct from overseas countries. The 1955 figure was an increase of nearly 2,000,000 over 1954.

Regardless of the fewer number of visitors coming to Canada in 1956, visitor expenditures in this country reached an all-time high of \$337,000,000, \$9,000,000 above the expenditure figure for 1955 or an increase of nearly 3 p.c. The 1955 total was an increase of about \$23,000,000 over 1954. At the same time, Canadians spent nearly \$500,000,000 travelling in other countries during 1956, \$49,000,000 or 11 p.c. more than in 1955. Thus the debit balance on travel account which had been \$121,000,000 in 1955 was extended by \$40,000,000 to \$161,000,000 in 1956, almost double the 1954 figure.

Travel by Residents of the United States in Canada.—Receipts from residents of the United States advanced to a record of \$309,000,000 in 1956, 2 p.c. higher than in 1955 even though 2 p.c. fewer visits were recorded. The increase was accounted for by the tourists travelling by automobile who spent \$172,000,000 in Canada as compared with \$165,000,000 in 1955. There were 8,400,000 non-resident automobiles in Canada during 1956, about 241,000 more than in 1955. However, this increase was more than accounted for by a 5-p.c. increase in the non-permit or local class of vehicles entering—the number of foreign vehicles entering on travellers' vehicle permits was between 1 and 2 p.c. lower than in 1955, but these expenditures were slightly higher. Average expenditure per visit in 1956 was higher in most of the provinces and the aggregate for all provinces was up between 3 and 4 p.c. Receipts from the non-permit or local classification of automobile traffic were also substantially higher in 1956. Receipts from visitors arriving by other forms of transportation were practically unchanged from the previous year, although there was a substantial decrease in their numbers.

Motorists entering Canada on travellers' vehicle permits contributed about 44 p.c. of the total travel receipts from residents of the United States during 1956. Although no direct record of their movement within Canada is maintained, a study of the ports of entry and exit give some indication of the routes within Canada that attract the greatest number of American motorists. This information represents minimum interprovincial or interregional travel and does not include cars entering or leaving by the same province or region after visiting other provinces or other areas within the province of entry. During 1956, 5,376 cars entered Canada through ports in the Maritime Provinces and returned to the United States through ports in the Province of Quebec, whereas 8,611 vehicles entered Canada through ports in Quebec and returned to the United States through ports in the Maritime Provinces. From 75 to 77 p.c. of these visitors remained in Canada for three or more days. The most popular route for travel in each direction lies between the ports of St. Stephen, N.B., and Blackpool, Que.

The interchange of entries and exits between Ontario and Quebec accounts for a substantial segment of the number of Americans travelling in these Provinces. During 1956, some 33,380 foreign vehicles entered Canada on customs permits through ports in Quebec and returned to the United States through Ontario ports. This represented about 8 p.c. of all the vehicles entering Canada through Quebec ports. Approximately 82 p.c. of these motorists stayed in Canada for three or more days. Travel in the opposite direction

was somewhat heavier as 50,939 vehicles entered through Ontario ports and returned through Quebec ports. Automobiles returning through Quebec represented between 3 to 4 p.c. of all entries into Ontario on travellers' vehicle permits and 85 p.c. of the vehicles travelling in that direction remained in Canada for three or more days. The volume of traffic between Quebec and Ontario is heavier on routes between Blackpool and Niagara Falls than between any other combination of ports.

Within Ontario, which normally accounts for about 60 p.c. of the entries into Canada on travellers' vehicle permits, there are several routes that appear to be popular with foreign motorists. The highways between Fort Erie and Niagara Falls on the east of southern Ontario and the St. Clair and Detroit River ports on the west carry the heaviest volume of traffic. During 1956, 189,200 vehicles travelled from east to west between these ports and 200,900 from west to east. The fact that well over half of these vehicles were in the country only one day shows the extent of in-transit traffic over this route. The trip across southern Ontario is about 250 miles long, and is more than 100 miles shorter than the route south of Lake Erie. Because Ontario has such a high proportion of in-transit travel, average expenditure per visit is lower than in the other provinces.

The route between Fort Erie-Niagara Falls and the St. Lawrence River ports is a better source of travel receipts since it often involves a trip north of Lake Ontario and perhaps a visit to Toronto or some of the tourist resorts in central Ontario. In 1956, 37,800 automobiles used this route either way, and two-thirds of them were in Canada three or more days.

Travel across the northern areas of Ontario has not developed to any extent because of the distance involved and the condition of many parts of the highways. However, 827 vehicles entered Ontario somewhere east of Port Arthur and returned to the United States through Pigeon River, Fort Frances or Rainy River after staying in Canada for three days or longer. The number of cars travelling in the opposite direction was 1,082.

In 1956 some 5,126 cars entered Canada through ports in Ontario west of Port Arthur and returned to the United States through ports in Manitoba, nearly 75 p.c. of them staying three or more days. Travel in the opposite direction totalled 4,919 but 80 p.c. of the permits covered visits of three or more days.

Almost 36 p.c. of the longer-term group of foreign automobiles entering through ports in Alberta returned to the United States through British Columbia. The ports of Carway, Alta., and Kingsgate, B.C., appear more frequently than any other combination of ports in the exchange of travel between the two provinces, and the number of cars travelling in both directions was 20,765.

Residents of the United States visiting Alaska usually enter through Alberta or British Columbia and continue in-transit through Yukon Territory to their destination. The journey involves more than 2,000 miles of travel through Canada and therefore requires a length of stay in this country. This in-transit travel to Alaska no doubt contributes to the high averages of tourist expenditures in Alberta and British Columbia.

During 1956, about 8,500 cars entered Canada through ports in Alberta or British Columbia and left mainly through the port of Snag Creek in Yukon Territory. About 38 p.c. of them entered at Coutts in Alberta, and 28 p.c. entered through Huntingdon or Aldergrove in British Columbia. The return trip usually followed the same route.

Canadian Travel in the United States.—Travel to the United States by residents of Canada reached a new high in 1956 when there were 2,300,000 more crossings than in 1955. Total re-entries of Canadians returning from visits to the United States amounted to 27,100,000. Short-term traffic increased by 10 p.c., while an increase of between 5 and 6 p.c. was shown in the long-term visits. The movement of visitors from Canada to the United States was almost equal to the corresponding movement from the United States to Canada. There were, for example, some 4,276,900 Canadians in the longer-term group of re-entries as compared with 4,407,400 visits of the same duration from residents of the United States.

A record amount was spent on travel in the United States by residents of Canada during 1956; the total of \$391,000,000 represents an additional \$28,000,000 as compared with the previous record spent in 1955. Most of the additional expenditure appeared in the long-term traffic where the increase amounted to \$24,000,000; short-term travellers spent an extra \$4,000,000 during 1956. The average expenditure was \$78.79 per long-term visit, a 2-p.c. increase over 1955, and \$2.37 per short-term visit, a 2-p.c. decrease over 1955. The average expenditure for all visits was \$14.44. On a per capita basis, residents of Canada spent \$24.32 for travel in the United States in 1956. This is a higher figure than the average per visit because, besides the effect of commuters, many Canadians make several trips to the United States in a year. The Canadian averages are all much higher than corresponding rates for United States visitors. Per capita expenditures of Americans on travel in Canada averaged about \$1.85 in 1956, while the average expenditure per visit to Canada was \$11.18.

Canadian expenditures in the United States included purchases of merchandise. Declarations made under the \$100 customs exemption privilege during 1956 totalled close to \$73,000,000, an increase of \$3,600,000 over the previous year and nearly 19 p.c. of the total amount spent by Canadians while travelling in the United States. This latter percentage was about the same as in 1955.

A special study on characteristics of Canadian travel to the United States shows that, in 1956, 38 p.c. of the respondents reported recreation as the purpose of visit, 30 p.c. went to visit friends or relatives, 19 p.c. went to shop and 10 p.c. went on business or for educational purposes. Information on the destination of longer-term visitors to the United States showed that the State of destination varies with the season of the year. During the first three months of 1956, nearly 24 p.c. of the Canadian visitors covered in the sample went to Florida. The proportion dropped to 10 p.c. in the second quarter, 4 p.c. in the third and 5 p.c. in the fourth. Altogether for the year, between 9 and 10 p.c. gave Florida as their destination, a figure which changed little from 1955. New York drew over 28 p.c., which was the greatest number of Canadian visitors to any State during the year; during the second and fourth quarters the percentage was somewhat higher, which suggests a seasonal pattern influenced by holiday periods. The State of Washington was the destination of 11 p.c., Michigan 9 p.c. and California 5 p.c. Visitors to California preferred the first quarter of the year when the proportion was nearly 8.5 p.c.

It was also found that the States immediately south of the border attract the greater percentages of re-entries to bordering provinces. Thus, from the Atlantic Provinces over 38 p.c. of the Canadian visitors reported visits to Massachusetts, 28 p.c. to Maine and 15 p.c. to the State of New York. More than 39 p.c. of the residents of Canada returning through Quebec and Ontario visited New York State without going farther south. Many re-entries through Quebec also visited Massachusetts, Vermont and Florida. Michigan attracted over 17 p.c. of the Ontario visitors and Florida nearly 14 p.c. Almost 64 p.c. of the visitors returning to Manitoba and 48 p.c. returning to Saskatchewan had been to Minnesota and North Dakota. Of the re-entrants to Alberta, 41 p.c. had not travelled beyond Montana, 11 p.c. remained in the State of Washington and 9 p.c. visited California. Canadians who re-entered British Columbia stayed very close to the Pacific Coast; over 59 p.c. had been in Washington and 33 p.c. had visited California, Oregon and Idaho.

Travel between Canada and Overseas Countries.—Travel between Canada and overseas countries continued to show considerable expansion during 1956, particularly in the number of visits to overseas countries by residents of Canada. The expenditures of Canadians in overseas countries rose more rapidly than the receipts of visitors from overseas, resulting in a record deficit of \$79,000,000, which was about half of Canada's travel deficit for the year.

Residents of Canada returning direct from overseas countries *via* Canadian ports numbered 106,100, about 18,100 more than in the previous year. These direct re-entries were supplemented by an estimated 33,000 who travelled *via* the United States, making a

total of 139,100, which was an increase of 22,100 over 1955. More than 53 p.c. of the direct travel by air is covered by the ports of Gander, Nfld., Dorval, Que., Malton, Ont., and Vancouver, B.C., and there were 14,800 more re-entries through these ports in 1956 than in 1955. Re-entries by ship came mainly through St. John's, Nfld., Halifax, N.S., Saint John, N.B., Quebec and Montreal, Que., and Vancouver, B.C. The number of re-entries at these ports numbered 3,300.

The expenditures of Canadians in overseas countries reached a record of \$107,000,000 in 1956, \$21,000,000 higher than in 1955. The United Kingdom receives the major portion of overseas expenditure, although other European countries are gradually claiming more of the Canadian travel dollar. The United Kingdom received about \$46,000,000 in 1956 as compared with \$40,000,000 in 1955, and other European countries \$41,000,000 as against \$32,000,000. Higher averages per visit were reported by persons visiting other European countries than by those visiting the United Kingdom, and persons visiting both the United Kingdom and the Continent reported that more than 50 p.c. of their expenditures were made in Continental Europe. Thus there was little difference in the expenditures in the two areas, although substantially more visits to the United Kingdom were reported.

Data on destinations of Canadians returning directly show that, in 1956, 36 p.c. visited the United Kingdom only, 33 p.c. visited the United Kingdom and other European countries, about 12 p.c. visited European countries other than the United Kingdom only, 4 p.c. visited Bermuda, 4 p.c. went to the British West Indies, 5 p.c. to Mexico, nearly 3 p.c. to Hawaii, 2 p.c. to countries not specified, and less than 1 p.c. to other countries.

Length of stay abroad varied according to destination. The average stay in the United Kingdom was close to 63 days; persons travelling by vessel stayed about 80 days and those travelling by air averaged about 41 days. Persons visiting the United Kingdom and other European countries averaged approximately 71 days, 38 days in the United Kingdom and 33 days on the Continent. Here again persons travelling by ship averaged approximately 93 days, and those travelling by air about 48 days. Visits of longer duration were reported by persons visiting only European countries other than the United Kingdom. The average length of visit by ship passenger to Continental Europe only was 91 days, and by air travellers about 47 days. The average length of stay in Bermuda was 16 days, and in the British West Indies around 24 days. Much longer visits were reported by Canadians who visited other parts of the Commonwealth. For other countries visited the average length of stay was: Mexico, 20 days; Central America, 26 days; Hawaii, 28 days; and South America, 47 days.

Non-resident travellers (other than immigrants) arriving direct from overseas countries through Canadian ports of entry in 1956 numbered about 30,600, about 2,600 more than in 1955. In addition, an estimated 22,000 visitors from overseas entered Canada by the United States. The total was thus 52,600, or 4,600 more than in the previous year.

Expenditures in Canada by overseas visitors were estimated at \$28,000,000 in 1956, a record amount \$3,000,000 above the 1955 total. Included were transportation costs paid to Canadian carriers which accounted for about 50 p.c. of the total receipts from residents of overseas countries. Expenditures of overseas travellers in Canada are higher than the volume indicates because of higher transportation costs and usually longer visits.

Tourist Information.—Tourist information generally is supplied by the Canadian Government Travel Bureau, Ottawa, and detailed information on the National Parks and Historic Sites is available from the Department of Northern Affairs and National Resources, Ottawa. For advice regarding specific provinces or particular cities or resorts, application should be made to the Provincial or Municipal Bureau of Information concerned.

6.—Number and Expenditure of Foreign Travellers in Canada and Canadian Travellers Abroad 1955 and 1956

| Year and Class of Traveller | Foreign Travellers in Canada ¹ | Foreign Expenditure in Canada | Canadians Travelling Abroad ¹ | Canadian Expenditure Abroad | Excess of Foreign Travellers in Canada ¹ | Excess of Canadian Expenditure Abroad |
|--|---|-------------------------------|--|-----------------------------|---|---------------------------------------|
| | No. | \$'000 | No. | \$'000 | No. | \$'000 |
| 1955 | | | | | | |
| Travellers from and to overseas countries..... | 28,000 | 25,000 | 88,000 | 86,000 | -60,000 | +61,000 |
| Travellers from and to the United States— | | | | | | |
| Automobile— | | | | | | |
| Short-term visit ² | 17,825,800 | 46,900 | 15,367,400 | 35,600 | +2,458,400 | -11,300 |
| Long-term visit..... | 3,006,200 | 118,500 | 2,746,700 | 142,600 | +259,500 | +24,100 |
| Rail..... | 939,800 | 41,500 | 481,100 | 66,300 | +458,700 | +24,800 |
| Boat..... | 369,600 | 13,000 | 110,300 | 5,100 | +259,300 | -7,900 |
| Bus (exclusive of local bus)..... | 340,000 | 22,300 | 465,400 | 46,100 | -125,400 | +23,800 |
| Aircraft..... | 288,500 | 37,300 | 253,900 | 52,700 | +34,600 | +15,400 |
| Other (pedestrians, local bus, etc.) | 5,513,500 | 23,400 | 5,329,000 | 14,400 | +184,500 | -9,000 |
| Totals, United States..... | 28,283,400 | 302,900 | 24,753,800 | 362,800 | +3,529,600 | +59,900 |
| Totals, All Countries..... | 28,311,400 | 327,900 | 24,841,800 | 448,800 | +3,469,600 | +120,900 |
| 1956 | | | | | | |
| Travellers from and to overseas countries..... | 30,600 | 28,000 | 106,100 | 107,000 | -75,500 | +79,000 |
| Travellers from and to the United States— | | | | | | |
| Automobile— | | | | | | |
| Short-term visit ² | 19,377,200 | 54,900 | 17,204,300 | 38,000 | +2,172,900 | -16,900 |
| Long-term visit..... | 3,012,600 | 117,700 | 2,958,600 | 159,400 | +54,000 | +41,700 |
| Rail..... | 882,100 | 43,700 | 485,800 | 64,300 | +396,300 | +20,600 |
| Boat..... | 399,500 | 15,700 | 102,100 | 5,000 | +297,400 | -10,700 |
| Bus (exclusive of local bus)..... | 338,900 | 22,100 | 435,600 | 41,900 | -96,700 | +19,800 |
| Aircraft..... | 314,700 | 36,600 | 300,300 | 66,400 | +14,400 | +29,800 |
| Other (pedestrians, local bus, etc.) | 3,341,500 | 18,700 | 5,590,000 | 16,100 | -2,248,500 | -2,600 |
| Totals, United States..... | 27,666,500 | 309,400 | 27,076,700 | 391,100 | +589,800 | +81,700 |
| Totals, All Countries..... | 27,697,100 | 337,400 | 27,182,800 | 498,100 | +514,300 | +160,700 |

¹ As these figures are the number of entries and re-entries into Canada, they include substantial amounts of in-transit, commuting and local traffic. ² Visits of fewer than 48 hours.

7.—Summary of Highway Traffic at Canadian Border Points by Province 1955 and 1956

| Province or Territory | FOREIGN VEHICLES INWARD | | | | | |
|--------------------------------|--------------------------------|------------------|-----------------------------|------------------|---------------------|----------------|
| | Non-permit Class Local Traffic | | Travellers' Vehicle Permits | | Commercial Vehicles | |
| | 1955 | 1956 | 1955 | 1956 | 1955 | 1956 |
| | No. | No. | No. | No. | No. | No. |
| Atlantic Provinces..... | 1,169,151 | 1,385,993 | 166,664 | 174,698 | 94,989 | 110,295 |
| Quebec..... | 482,534 | 542,454 | 405,784 | 417,826 | 86,979 | 120,184 |
| Ontario..... | 3,758,160 | 3,915,963 | 1,549,942 | 1,485,360 | 133,779 | 156,942 |
| Manitoba..... | 72,591 | 70,890 | 46,723 | 45,543 | 12,717 | 15,008 |
| Saskatchewan..... | 31,956 | 32,420 | 18,910 | 20,984 | 6,541 | 8,502 |
| Alberta..... | 39,788 | 32,069 | 45,745 | 47,916 | 7,989 | 8,773 |
| British Columbia..... | 128,583 | 130,282 | 283,469 | 282,926 | 22,234 | 29,834 |
| Yukon Territory..... | 626 | 995 | 7,756 | 9,191 | 315 | 1,385 |
| Totals..... | 5,683,389 | 6,111,066 | 2,524,993 | 2,484,444 | 365,543 | 450,923 |
| Percentage change 1955-56..... | +7.5 | | -1.6 | | +23.4 | |

7.—Summary of Highway Traffic at Canadian Border Points by Province 1955 and 1956—
concluded

| Province or Territory | CANADIAN VEHICLES RETURNING | | | | | |
|--------------------------------|-----------------------------------|------------------|--------------------------------|------------------|------------------------|----------------|
| | After Stay of 24 Hours or Less | | After Stay of Over 24 Hours | | Commercial Vehicles | |
| | 1955 | 1956 | 1955 | 1956 | 1955 | 1956 |
| | No. | No. | No. | No. | No. | No. |
| Atlantic Provinces..... | 1,367,434 | 1,615,748 | 97,943 | 127,366 | 124,443 | 137,853 |
| Quebec..... | 952,817 | 1,086,593 | 310,199 | 373,757 | 135,755 | 183,390 |
| Ontario..... | 2,367,938 | 2,759,531 | 480,086 | 478,872 | 223,384 | 232,944 |
| Manitoba..... | 144,013 | 136,752 | 67,869 | 65,979 | 25,081 | 28,125 |
| Saskatchewan..... | 65,055 | 75,043 | 32,040 | 31,486 | 10,217 | 12,156 |
| Alberta..... | 58,247 | 64,567 | 65,534 | 65,050 | 12,272 | 13,138 |
| British Columbia..... | 534,473 | 569,786 | 186,150 | 203,723 | 31,653 | 31,297 |
| Yukon Territory..... | 1,069 | 1,495 | 381 | 387 | 289 | 355 |
| Totals..... | 5,491,046 | 6,309,515 | 1,240,202 | 1,346,620 | 563,094 | 639,258 |
| Percentage change 1955-56..... | +14.9 | | +8.6 | | +13.5 | |

PART IV.—THE GOVERNMENT AND FOREIGN TRADE

Section 1.—Foreign Trade Service and Associated Agencies concerned with the Development of Foreign Trade*

Foreign trade contributes substantially to the welfare and prosperity of Canadians, largely because the productive capacity of Canada is greater than the ability of its population to consume the output of farms, factories, forests, fisheries and mines. Every effort is made, therefore, to establish and maintain close commercial relations with other countries whose markets are essential to the Canadian economy. It is appreciated, however, that two-way trade should be encouraged in order that goods and services may be accepted in partial payment for the products Canada is in a position to export. Furthermore, many commodities that are not indigenous to this country must be imported. Some of these are required for industrial processes and others may be classed as consumer goods necessary for the maintenance of the Canadian standard of living.

Although many private firms have established connections in other countries that enable them to maintain a steady flow of goods in either direction, others require the assistance of government agencies in finding markets or sources of supply. Import and export controls imposed by many countries for a variety of reasons, together with postwar foreign exchange difficulties, present problems that no single firm or even an association of manufacturers, exporters or importers can solve without assistance from government representatives.

The Department of Trade and Commerce and associated agencies are at the disposal of exporters and importers engaged directly in the development of Canada's commercial relations with other countries. Services obtainable from the various branches, divisions and agencies are described below.

Canadian Trade Commissioner Service.—The Canadian Trade Commissioner Service is one of the important instruments in the continuous effort to increase Canadian international trade, to give world-wide distribution to Canadian products and to locate the best sources of supply for imports. Headquarters are at Ottawa, and 58 offices are maintained in 45 countries, staffed with trained Canadian trade officials and commodity specialists. The work of the Trade Commissioners in the field is co-ordinated in Ottawa by five Area Trade Officers. These Officers are familiar with every aspect of foreign trade

* Prepared in the several Branches and Divisions concerned and collated in the Trade Publicity Branch, Department of Trade and Commerce, Ottawa.

in their geographical or political areas and are responsible to the Director of the Service for the collection, preparation and presentation of information on all trade matters in their respective territories.

Trade Commissioners bring together exporters and importers of Canada and other countries. They study potential markets for specific Canadian products and report on the exact kind of goods in demand, prices, competitive conditions, trade and exchange regulations, tariffs, shipping and packaging requirements, labelling, etc. Inquiries for Canadian goods are forwarded to the Department at Ottawa or directly to interested Canadian firms. For Canadian importers, Trade Commissioners seek sources of supply of a wide variety of goods. The preparation of economic and other reports for departmental use is an important activity for the Trade Commissioner. Assistance is given to Canadian exhibitors at overseas trade fairs and constant liaison is maintained with the trade departments of foreign governments.

In countries where Canada maintains a diplomatic mission and a trade office, Trade Commissioners form an integral part of the mission and assume the title of Commercial Counsellor or Commercial Secretary. In some foreign countries they act as Consuls General, Consuls or Vice-Consuls, according to their status as Foreign Service Officers.

In order to provide Canadian manufacturers, exporters and importers with up-to-date information concerning their territories more effectively than is possible by correspondence, tours of Canadian industrial centres are arranged from time to time for Trade Commissioners. Such direct contacts enable specific problems to be discussed and at the same time serve to bring into focus for the Trade Commissioner the Canadian industrial picture as a whole.

CANADIAN FOREIGN TRADE OFFICES ABROAD AS AT JAN. 1, 1958

ARGENTINA.—Commercial Counsellor, Canadian Embassy, Bartolome Mitre 478, Buenos Aires.

AUSTRALIA.—Commercial Counsellor for Canada, 7th Floor, Berger House, 82 Elizabeth Street, Sydney, N.S.W.

Commercial Counsellor for Canada, 83 William Street, Melbourne.

AUSTRIA.—Commercial Secretary for Canada, Opernringhof, Opernring 1, Vienna 1. Territory includes Czechoslovakia and Hungary.

BELGIAN CONGO.—Canadian Government Trade Commissioner, Forescom Bldg., Leopoldville 1. Territory includes Angola and French Equatorial Africa.

BELGIUM.—Commercial Counsellor, Canadian Embassy, 35 rue de la Science, Brussels. Territory includes Luxembourg.

BRAZIL.—Commercial Secretary, Canadian Embassy, Edificio Metropole, Av. Presidente Wilson 165, Rio de Janeiro.
Consul and Trade Commissioner, Canadian Consulate, Edificio Alois, Rua 7 de Abril 252, São Paulo.

CEYLON.—Commercial Secretary, Office of the High Commissioner for Canada, 6 Gregory's Road, Cinnamon Gardens, Colombo.

CHILE.—Commercial Secretary, Canadian Embassy, 6th Floor, Av. General Bulnes, 129, Santiago.

COLOMBIA.—Commercial Secretary, Canadian Embassy, Avenida Jimenez No. 7-25, Office 613, Bogota. Territory includes Ecuador.

CUBA.—Commercial Secretary, Canadian Embassy, Edificio Ambar Motors, Avenida Menocal 16, Havana.

DENMARK.—Commercial Counsellor, Canadian Embassy, 4 Trondhjems Plads, Copenhagen. Territory includes Greenland and Poland.

DOMINICAN REPUBLIC.—Commercial Counsellor, Canadian Embassy, Edificio Copello 408, Calle El Conde, Ciudad Trujillo. Territory includes Puerto Rico.

- EGYPT.—Commercial Secretary, Canadian Embassy, 6 Sharia Rouston Pasha, Garden City, Cairo. Territory includes Aden, Sudan, Cyprus, Ethiopia, Saudi Arabia, and Yemen.
- FRANCE.—Commercial Counsellor for Canada, 3 rue Scribe, Paris. Territory includes Algeria, French West Africa, Morocco, Tangier and Tunisia.
- GERMANY, FEDERAL REPUBLIC OF.—Commercial Counsellor, Canadian Embassy, 22 Zitelmansstrasse, Bonn.
Consul, Canadian Consulate, 69 Ferdinandstrasse, Hamburg.
- GHANA.—Commercial Counsellor, Office of the High Commissioner for Canada, Post Office Box No. 1639, Accra. Territory includes Gambia, Nigeria and Sierra Leone.
- GREECE.—Commercial Secretary, Canadian Embassy, 31 Vassilissis Ave., Athens. Territory includes Israel and Turkey.
- GUATEMALA.—Canadian Government Trade Commissioner, 5a Avenida Sud, 10-68, Guatemala City. Territory includes Costa Rica, El Salvador, Honduras, Nicaragua, Panama and Canal Zone.
- *HAITI.—Chargé d'Affaires *ad interim* and Consul, Canadian Embassy, Route du Canape Vert, St. Louis de Turgeau, Port au Prince.
- HONG KONG.—Canadian Government Trade Commissioner, Hong Kong and Shanghai Banking Corporation Bldg., Hong Kong. Territory includes Taiwan, Cambodia, Laos, Vietnam, Macao and China.
- INDIA.—Commercial Counsellor, Office of the High Commissioner for Canada, 4 Aurangzeb Road, New Delhi.
Canadian Government Trade Commissioner, Gresham Assurance House, Mint Road, Bombay. Territory includes Goa.
- INDONESIA.—Commercial Secretary, Canadian Embassy, Djl. Budi Kemuliaan No. 6, Djakarta.
- IRELAND.—Commercial Secretary for Canada, 66 Upper O'Connell St., Dublin.
- ITALY.—Commercial Counsellor, Canadian Embassy, Via G. B. de Rossi 27, Rome. Territory includes Libya, Malta and Yugoslavia.
- JAMAICA.—Canadian Government Trade Commissioner, Barclays Bank Building, King Street, Kingston. Territory includes Bahamas and British Honduras.
- JAPAN.—Commercial Counsellor, Canadian Embassy, Tokyo. Territory includes South Korea.
- LEBANON.—Commercial Secretary, Canadian Legation, Alpha Building, Rue Clemenceau, Beirut. Territory includes Iraq, Jordan, Persian Gulf Area, and Syria.
- MEXICO.—Commercial Counsellor, Canadian Embassy, Melchior Ocampo 463, 7th Floor, Mexico 1, D.F.
- NETHERLANDS.—Commercial Counsellor, Canadian Embassy, Sophialaan 5-7, The Hague.
- NEW ZEALAND.—Commercial Counsellor, Office of the High Commissioner for Canada, Government Life Insurance Bldg., Wellington. Territory includes Fiji and Western Samoa.
- NORWAY.—Commercial Counsellor, Canadian Embassy, Fridtjof Nansens Plass 5, Oslo. Territory includes Iceland.
- PAKISTAN.—Commercial Secretary, Office of the High Commissioner for Canada, Hotel Metropole, Victoria Road, Karachi. Territory includes Afghanistan and Iran.
- PERU.—Commercial Secretary, Canadian Embassy, Edificio Boza, Carabaya 831, Plaza San Martin, Lima. Territory includes Bolivia.
- PHILIPPINES.—Consul General and Trade Commissioner, Canadian Consulate General, Ayala Bldg., Juan Luna Street, Manila.
- PORTUGAL.—Commercial Counsellor, Canadian Embassy, Rua Marques de Fronteira, No. 8-4°D°, Lisbon. Territory includes Azores, Cape Verde Islands, Madeira, and Portuguese Guinea.

* No Foreign Trade Officer at this post.

RHODESIA AND NYASALAND, FEDERATION OF.—Canadian Government Trade Commissioner, Offices 110-113 Central Africa House, Corner First St./Gordon Ave., Salisbury. Territory includes Kenya, Seychelles Islands, Tanganyika, Uganda and Zanzibar.

SINGAPORE.—Canadian Government Trade Commissioner, Room E-3, Union Bldg., Singapore. Territory includes Brunei, Burma, Federation of Malaya, North Borneo, Sarawak and Thailand.

SOUTH AFRICA.—Canadian Government Trade Commissioner, Mutual Bldg., Harrison Street, Johannesburg. Territory includes (Natal, Transvaal, Orange Free State), Madagascar, Mauritius, Mozambique, and Reunion.

Canadian Government Trade Commissioner, 602 Norwich House, The Foreshore, Cape Town. Territory includes (Cape Province), St. Helena, and Southwest Africa.

SPAIN.—Commercial Counsellor, Canadian Embassy, Edificio Espana, Avenida de Jose Antonio 88, Madrid. Territory includes Balearic Islands, Canary Islands, Gibraltar, Rio Muni and Rio de Oro.

SWEDEN.—Commercial Secretary, Canadian Embassy, Strandvagen, 7-C, Stockholm. Territory includes Finland.

SWITZERLAND.—Commercial Counsellor, Canadian Embassy, Kirchenfeldstrasse 88, Berne.

TRINIDAD.—Canadian Government Trade Commissioner, Colonial Bldg., 72 South Quay, Port-of-Spain. Territory includes Barbados, Windward and Leeward Islands, British Guiana, Dutch Guiana, French Guiana, French West Indies, Guadeloupe and Martinique.

UNITED KINGDOM.—Commercial Counsellor, Office of the High Commissioner for Canada, Canada House, Trafalgar Square, London, S.W.1.

Canadian Government Trade Commissioner, Martins Bank Building, Water Street, Liverpool.

Canadian Government Trade Commissioner, 36 Victoria Square, Belfast, Northern Ireland.

UNITED STATES.—Minister (Commercial), Canadian Embassy, 1746 Massachusetts Avenue N.W., Washington 6, D.C.

Deputy Consul General (Commercial), Canadian Consulate General, 620 Fifth Avenue, New York City 20, N.Y.

Consul and Trade Commissioner, Canadian Consulate General, 532 Little Bldg., 80 Boylston Street, Boston 16, Mass.

Consul and Trade Commissioner, Canadian Consulate General, 1412 Garland Bldg., 111 North Wabash Avenue, Chicago, Ill.

Consul and Trade Commissioner, Canadian Consulate, 1139 Penobscot Bldg., Detroit 26, Mich.

Consul and Trade Commissioner, Canadian Consulate General, 510 West Sixth Street, Los Angeles 14, Cal.

Consul and Trade Commissioner, Canadian Consulate General, 215-217 International Trade Mart, New Orleans 12, La.

*Consul General, Canadian Consulate General, 3rd Floor, Kohl Bldg., 400 Montgomery Street, San Francisco 4, Cal.

*Consul General, Canadian Consulate General, The Tower Bldg., Seventh Avenue at Olive Way, Seattle 1, Wash.

URUGUAY.—Commercial Counsellor, Canadian Embassy, No. 1409 Avenida Agraciada, Piso 7°, Montevideo. Territory includes Paraguay and Falkland Islands.

VENEZUELA.—Commercial Secretary, Canadian Embassy, Edificio Pan American, Avenida Urdaneta, Puente Urapal, Candelaria, Caracas. Territory includes Netherlands Antilles.

AGRICULTURAL REPRESENTATIVES

ARGENTINA.—Agricultural Secretary, Canadian Embassy, Bartolome Mitre 478, Buenos Aires.

UNITED KINGDOM.—Commercial Counsellor (Agricultural), Office of the High Commissioner for Canada, Canada House, Trafalgar Square, London, S.W.1.

UNITED STATES.—Agricultural Counsellor, Canadian Embassy, 1746 Massachusetts Avenue N.W., Washington 6, D.C.

* No Foreign Trade Officer at this post.

FISHERIES REPRESENTATIVES

DOMINICAN REPUBLIC.—Assistant Commercial Secretary (Fisheries), Canadian Embassy, Edificio Copello 408, Calle El Conde, Ciudad Trujillo. Territory includes Puerto Rico.

ITALY.—Commercial Secretary (Fisheries), Canadian Embassy, Via G. B. de Rossi 27, Rome.

TIMBER REPRESENTATIVE

UNITED KINGDOM.—Commercial Counsellor (Timber), Office of the High Commissioner for Canada, Canada House, Trafalgar Square, London, S.W.1.

Commodities Branch.—The Commodities Branch is responsible for maintaining the liaison with industry and with export and import trades essential to the foreign trade promotional work of the Department. The Branch assembles trade information and data on products for use by Trade Commissioners in posts abroad, and officers of the Branch maintain contact with industry through personal visits and by exchange of correspondence with this purpose in view. Officers of the Branch follow conditions in foreign markets for the benefit of Canadian traders.

The Branch contains commodity specialists organized in four Divisions: the Machinery and Metals Division, the Forest Products Division, the Chemicals Division, and the Consumer Goods Division. Within these Divisions individual commodity specialists are concerned with such particular groups of products as machine tools and plant equipment, non-ferrous metals, steel, chemicals, lumber, leather and rubber, as well as a very wide range of consumer products. It is the function of the commodity specialist to direct attention of Trade Commissioners to changes in supply conditions and to products available for export, and to relay market news received from Trade Commissioners to Canadian manufacturers and exporters.

The trade promotion work of the Branch begins at the point of finding Canadian products on which to concentrate promotional efforts. Detailed reports on such products are sent to Trade Commissioners throughout the world to encourage market research and promotion and exporters are informed about regulations governing foreign trade.

Agriculture and Fisheries Branch.—The main functions of this Branch include: (1) trade promotion relating to agricultural and fisheries products; (2) the programming, receiving and distributing of information on foreign agriculture and fisheries; and (3) acting as a focal point for liaison on agricultural and fisheries trade matters with the Department of Agriculture, the Department of Fisheries, the Canadian Wheat Board, and other government departments and boards.

In the field of trade promotion, the Grain Division, the Food and Agriculture Division and the Fisheries Division assist Canadian exporters of agricultural and fisheries products in finding markets in other countries. Canadian firms are supplied with information concerning market conditions and requirements in foreign markets, competition from other sources of supply, exchange and tariff restrictions and other related information. Trade Commissioners are kept fully informed on such matters as production and price trends in Canada, quantities of commodities available for export and sources of supply.

The Grain Division assists foreign governments and other buyers in the purchase of Canadian wheat, flour and other cereals. Close contact is maintained with the flour millers as well as daily liaison with the Canadian Wheat Board.

The Commodity Officers concerned with livestock, livestock products, meat, dairy and poultry products, fruits and vegetables, and fish and fisheries products keep in contact with the trade and trade organizations dealing with these commodities. They are in close touch with the officers of other departments of government concerned with the disposition of Canadian production surplus to domestic requirements, and those responsible for such items as health standards, grading and inspection.

A great deal of information pertaining to foreign agriculture and fisheries is received from the Canadian Trade Commissioners. This material, which reflects foreign government policy, production trends and market information, is processed in the Branch and distributed to the departments of government concerned and others interested. Much of it is published in *Foreign Trade*. The Trade Commissioner Service includes a number of officers who deal specifically with agricultural and fisheries matters. Some of these officers are located in Canada's most important export outlets and others in those countries with which Canada competes on world markets, particularly in such commodities as wheat, coarse grains, livestock, meats and dairy products. The information received from the agricultural officers and other Trade Commissioners on foreign agricultural developments is distributed in Canada through publications issued by the Economics Division of the Department of Agriculture and by direct communication with producers and exporters. Fisheries information from abroad is passed immediately to the Department of Fisheries, the provincial departments concerned, the Fisheries Council, and to fish exporters.

International Trade Relations Branch.—This Branch deals with a wide variety of current trade issues, ranging from the analysis of developments in international commercial relations to assisting in the reopening of dollar markets for Canadian products and to finding practical solutions for tariff and other difficulties encountered by Canadian exporters. The Branch has under constant review Canada's trading relations with other countries, and participates in conferences and negotiations under the General Agreement on Tariffs and Trade. In addition, the Branch is concerned with the effects of the work of such international organizations as the Organization for European Economic Co-operation on Canadian and world trade.

Trade treaties are under continuous examination by the Branch, which is responsible for the preparation of material for trade and tariff negotiations with other countries. Material is collected on foreign tariffs, customs legislation, taxes affecting trade, import licensing, exchange regulations, documentation, sanitation, marking and labelling requirements, and measures pertaining to quotas, embargoes and other import restrictions. These data are analysed, interpreted, clarified and made available in easily comprehensible form to exporters, government officials and other export interests.

Exporters who encounter difficulties resulting from the trade policies or regulations of other countries are given expert advice and interpretation of foreign regulations. Also the Branch initiates official consultations with other governments respecting such problems.

Economics Branch.—The Economics Branch maintains a continuous review of business conditions in Canada and conducts special studies on particular industries or on any aspect of Canada's economic development as required. Aspects of the general economic situation considered include foreign trade, investment, consumption, production, prices, incomes and employment, as well as conditions in industries and localities.

Industrial Development Branch.—This Branch co-ordinates the assistance offered by the Federal Government in the establishment of new industries in Canada. Acting in this capacity, information is provided on a multiplicity of matters pertaining to industry establishment. The Branch assists also in solving the variety of problems encountered by Canadian and foreign businessmen. It also aids those established firms that wish to expand into new lines of production. Inquiries from foreign firms and individuals regarding the manufacture of products in Canada under licence or royalty are screened and brought to the attention of Canadian manufacturers interested in producing additional items.

The Branch acts in an advisory capacity to the Immigration Branch of the Department of Citizenship and Immigration regarding the admission of individuals, other than those from Commonwealth countries, who wish to establish new industries in Canada. It also works in close co-operation with a widespread network of organizations throughout Canada, including industrial development departments of the provinces, municipalities, railways, banks, power companies, chambers of commerce, boards of trade, and the Canadian Manufacturers' Association.

Trade Publicity Branch.—The principal function of the Trade Publicity Branch is to furnish the commercial community of Canada with information concerning the assistance that exporters and importers may obtain from the Department of Trade and Commerce. The Branch is responsible also for stimulating a better appreciation by the general public of the importance of trade to the welfare of Canada. The attention of exporters and potential exporters is directed to opportunities for the disposal of their products in markets abroad, and of importers to the sources of supply for raw materials and consumer goods unobtainable in Canada. Its principal educational and informative medium is *Foreign Trade*, fortnightly publication of the Foreign Trade Service, in which are reproduced reports of Canadian Trade Commissioners on conditions in their respective territories, articles by Head Office personnel and economists of the Dominion Bureau of Statistics, news items and charts portraying trade trends. Press releases are prepared and distributed to newspapers at home, and material of similar character dispatched to Canadian Trade Commissioners for distribution to newspapers abroad. Pamphlets and brochures are prepared to supplement other information on foreign markets, sources of supply, documentation, regulations and trade restrictions. Assistance is rendered to correspondents of newspapers and periodicals at home and abroad in the preparation of articles pertaining to various phases of Canada's foreign trade. The educational and promotional work of this Branch is supported by moderate advertising at home and abroad through the daily press, periodicals and trade papers, and by films and radio.

Canadian Government Exhibition Commission.—The Canadian Government Exhibition Commission publicizes Canada by graphic media of all kinds and helps to sell Canadian products abroad. The Commission is solely responsible for the construction and administration of Federal Government exhibits at international expositions, trade fairs and displays outside Canada and of international trade fairs in Canada sponsored by the Government of Canada. The Commission also co-operates with Canadian exporters in securing representation for goods at trade fairs and trade promotional displays, and is equipped to advise individual Canadian companies in the preparation of exhibits. At its various presentations the Commission distributes literature produced by other government departments and agencies.

Export Credits Insurance Corporation.—The Export Credits Insurance Corporation was established under the provisions of the Export Credits Insurance Act 1944 (amended in 1946, 1948, 1954 and 1957). The Corporation, which is administered by a Board of Directors including the Deputy Minister of Trade and Commerce, the Deputy Minister of Finance and the Governor of the Bank of Canada, insures persons carrying on business in Canada against risks involved in the export, manufacture, treatment or distribution of goods or the rendering of engineering, construction, technical or similar services. The main risks covered include: insolvency or protracted default on the part of the buyer; exchange restrictions in the buyer's country preventing the transfer of funds to Canada; cancellation of an import licence or the imposition of restrictions on the importation of goods not previously subject to restrictions; the occurrence of war between the buyer's country and Canada, or of war, revolution, etc., in the buyer's country.

The insurance is available under three main classifications: general commodities capital goods, and services. Coverage for general commodities may be procured by exporters under two types of policies: (1) the Contracts Policy, which insures an exporter against loss from the time he books the order until payment is received; or (2) the Shipments Policy, obtainable at lower rates of premium and covering the exporter from the time of shipment until payment is received. These policies are issued on a yearly basis, covering exporters' sales to all countries.

Insurance of capital goods offers protection to exporters dealing in plant equipment, heavy machinery, etc., where extended credit for lengthy periods is often necessary. Specific policies are issued for transactions involving capital goods but the general terms and conditions are the same as those applicable to policies for general commodities. Specific

policies are also issued to cover engineering, construction, technical or similar services contracts entered into between Canadian firms and persons in foreign countries who have agreed to purchase such services.

The Corporation insures exporters on a co-insurance basis up to a maximum of 85 p.c. of the gross invoice value of shipments. This co-insurance basis also operates in the distribution of recoveries obtained after payment of a loss, and these recoveries are shared by the Corporation and the exporter in the proportions of 85 and 15 p.c., respectively.

The Corporation, from its inception to Dec. 31, 1956, insured export sales valued at \$376,000,000. Premium income was \$3,207,751, and gross claims paid to exporters during the same period amounted to \$7,821,612. A large majority of these claims resulted from exchange transfer difficulties with relatively few arising from insolvencies. Recoveries made amounted to \$4,306,132. The balance at credit of the underwriting reserve as at Dec. 31, 1956, was \$1,418,103.

International Economic and Technical Co-operation Division.—The administration of Canada's participation in the Colombo Plan, a co-operative effort to help the peoples of South and Southeast Asia to raise their standards of living and productivity, is the responsibility of this Division. This contribution is of two types—capital aid and technical co-operation. Under capital assistance, grants of goods or services are made to countries in the area on a government-to-government basis. Technical co-operation embraces the training of Asian peoples in a variety of fields in Canada and the supplying of Canadian technical and professional personnel to advise and instruct abroad. The Division also assists the United Nations and its specialized agencies in the recruiting of technical experts and in the arrangement of courses of instruction for trainees sent to Canada for study. For the year ended Mar. 31, 1957, \$34,400,000 was voted by Parliament for Colombo Plan capital aid and technical assistance.

Section 2.—The Development of Tariffs

A short sketch of trade and tariffs prior to Confederation is given in the 1940 Year Book, pp. 480-482. The 1942 Year Book, pp. 427-428, traces the development from Confederation to the adoption in 1904 of the present form of preferential tariff.

Limitations of space in the Year Book has made it necessary, in regard to tariffs, to adopt the policy of confining any detail regarding commodities and countries to tariff relationships in force at present and to summarize as much as possible historical data and details of preceding tariffs, giving references to those editions of the Year Book where extended treatments may be found.

Subsection 1.—The Canadian Tariff Structure*

The Canadian Tariff consists, in the main, of three sets of tariff rates—British Preferential, Most-Favoured-Nation, and General.

British Preferential Tariff rates are, with some exceptions, the lowest rates. They are applied to imported dutiable commodities shipped direct to Canada from countries of the Commonwealth and from the British colonies and other dependent overseas territories. Some Commonwealth countries have trade agreements with Canada which provide for rates of duty, on certain specified goods, lower than the British Preferential rates.

Most-Favoured-Nation rates are usually higher than the British Preferential rates and lower than the General Tariff rates. They are applied to commodities imported from countries outside the Commonwealth with which Canada has made trade agreements. The most important trade agreement concerning the effective rates applied to goods imported from countries entitled to Most-Favoured-Nation rates is the General Agreement on Tariffs and Trade (GATT).

* The schedules and rates in force at any particular time may be obtained from the Department of National Revenue, Ottawa, which administers the Canadian Tariff.

General Tariff rates are applied to goods imported from the few countries with which Canada has not made trade agreements.

There are numerous goods which are duty free under the British Preferential Tariff, or under both the British Preferential and Most-Favoured-Nation Tariff, or under all Tariffs.

Valuation.—Sect. 35 of the Customs Act provides that, when any *ad valorem* duty is imposed, the valuation of the goods for purposes of calculating the duty basically "shall be the fair market value, at the time when and place from which the goods were shipped to Canada, of like goods when sold in like quantities for home consumption in the ordinary course of trade under fully competitive conditions and under comparable conditions of sale" or "the amount for which the goods were sold by the vendor abroad to the purchaser in Canada, exclusive of all charges thereon after their shipment from the place from which they were exported direct to Canada", whichever is the greater. There are further provisions for determining the value for duty when the fair market value, in accordance with the foregoing, cannot be ascertained. Internal taxes in the country of export (when not incurred on exported goods), the cost of shipping the goods to Canada, and similar charges however are not included in the value for duty.

Dumping.—Sect. 6 of the Customs Tariff provides that when the actual selling price of goods being imported is less than their fair market value and the goods are of a class or kind made or produced in Canada, a special or dumping duty shall be collected. This duty is to be equal to the difference between the actual selling price and the fair market value of the goods, except that it may not be more than 50 p.c. of the value for duty. These provisions are designed to offset the advantage foreign exporters may achieve by exporting to Canada at less than the going prices.

Drawback.—There are provisions in the Customs and Excise Tax Acts for the repayment of a portion of the duty, sales and/or excise taxes paid on imported goods used in the manufacture of products later exported. The purpose of these drawbacks (as these repayments are called) is to assist Canadian manufacturers to compete in foreign markets with foreign producers of similar goods. A second class of drawback, known as "home consumption" drawbacks, is provided for under the Customs Tariff Act and applies to imported materials and/or parts used in the production of specified goods to be consumed in Canada.

The Tariff Board.—The Tariff Board, constituted by the Tariff Board Act 1931, consists of five members, one of whom is chairman and two are vice-chairmen. The duties and powers of the Board derive from three Statutes of Canada: the Tariff Board Act, the Customs Act, and the Excise Tax Act.

Under the Tariff Board Act, the Board makes inquiry into and reports upon any matter in relation to goods that, if brought into Canada or produced in Canada, are subject to or exempt from duties of customs or excise and on which the Minister of Finance desires information. The investigation into any such matter may include inquiry as to the effect that an increase or decrease of the existing rate of duty upon a given commodity might have upon industry or trade and the extent to which the consumer is protected from exploitation. It is also the duty of the Board to inquire into any other matter in relation to the trade and commerce of Canada that the Governor in Council sees fit to refer to the Board for inquiry and report. Usually the references take one of two forms: authority for review of sections of the Customs Tariff relating to an entire industry, or for investigation in respect of specified commodities. Reports are tabled in Parliament.

Under the provisions of the Customs Act and the Excise Tax Act, the Tariff Board acts as a court to hear appeals from rulings of the Department of National Revenue in respect of matters of administration including those of excise taxes, tariff classification, value for duty, and drawback of customs duties. Declarations of the Board on appeals on questions of fact are final and conclusive, with provision for appeal on questions of law

to the Exchequer Court of Canada. Tariff references and appeals receive public hearings at which interested parties submit oral statements and written briefs relating to matters under consideration.

Subsection 2.—Tariff and Trade Arrangements with Other Countries as at Oct. 1, 1957

Canada's tariff arrangements with other countries fall into three main categories: trade agreements with a number of Commonwealth countries; the General Agreement on Tariffs and Trade (GATT); and other agreements and arrangements.

The Commonwealth countries with which Canada has trade agreements are as follows: Australia, British West Indies, Ireland, New Zealand, Union of South Africa and the United Kingdom and Colonies. A preferential arrangement is also in force with respect to the Federation of Rhodesia and Nyasaland and preferences are accorded by Canada to India and Pakistan. Tariff relations between Canada and Ceylon, Ghana and the Federation of Malaya are governed by the Canada-United Kingdom agreement. These arrangements and arrangements have been modified and supplemented by the GATT. Canada exchanges most-favoured-nation treatment with 34 countries under the General Agreement on Tariffs and Trade. The Protocol of Provisional Application of the General Agreement on Tariffs and Trade was signed by Canada on Oct. 30, 1947, and brought the Agreement provisionally into force on Jan. 1, 1948.

The GATT is a multilateral trade Agreement providing for scheduled tariff concessions and the exchange of most-favoured-nation treatment among the contracting parties and laying down rules and regulations to govern the conduct of international trade. Under the system of multilateral tariff negotiations initiated under the GATT, four general rounds of negotiations have taken place: at Geneva, Switzerland, in 1947; at Annecy, France, in 1949; at Torquay, England, in 1950-51; and again at Geneva in 1955. The tariff concessions Canada granted and received at the first Geneva Conference are described in the 1948-49 Year Book, pp. 875-877, and those negotiated at Annecy are discussed in the 1950 Year Book, pp. 968-970. The Torquay negotiations are discussed in the 1952-53 edition, pp. 996-997. The existing tariff concessions remain in force until Jan. 1, 1958, and thereafter unless modified in accordance with the terms of the Agreement.

Canada already had most-favoured-nation trade agreements with a number of GATT members prior to the effective date of the General Agreement. These agreements with individual countries continue in force in conjunction with the General Agreement. As an exception, however, the Canada-U.S. Trade Agreement of 1938 is suspended for so long as both countries continue to be contracting parties to GATT.

Tariff and Trade Arrangements with Commonwealth Countries as at Oct. 1, 1957

| Country | Agreement | Principal Terms |
|---|--|---|
| AUSTRALIA..... | Trade Agreement signed July 8, 1931; in force Aug. 3, 1931. GATT effective Jan. 1, 1948. | Agreement includes schedules of tariff rates and exchange of British preferential rates on items not scheduled. May be terminated on six months notice. |
| BRITISH WEST INDIES (BAHAMAS, BARBADOS, JAMAICA, LEEWARD AND WINDWARD ISLANDS, TRINIDAD AND TOBAGO), BERMUDA, BRITISH GUIANA, AND BRITISH HONDURAS. | Trade Agreement signed July 6, 1925, in force Apr. 30, 1927; Canadian notice of termination of Nov. 23, 1938, was replaced by notice of Dec. 27, 1939, which continued the Agreement. The British West Indies (except Jamaica), Bermuda, British Guiana and British Honduras participate in GATT. | The parties exchange specified tariff preferences. Agreement may be terminated on six months notice. |

**Tariff and Trade Arrangements with Commonwealth Countries as at
Oct. 1, 1957—continued**

| Country | Agreement | Principal Terms |
|--|--|--|
| CEYLON..... | Ceylon is a party to the Trade Agreement of 1937 between United Kingdom and Canada. GATT effective July 29, 1948. | Canada and Ceylon exchange preferential tariff treatment. |
| GHANA..... | Ghana is a party to the Trade Agreement of 1937 between Canada and the United Kingdom. | Canada grants Ghana the British preferential rates. |
| INDIA..... | Since 1897 Canada has unilaterally accorded British preferential treatment to India but without contractual obligation. GATT effective July 8, 1948. | In addition to preferences granted to India, most-favoured-nation treatment is exchanged under GATT. |
| IRELAND..... | Trade Agreement signed Aug. 20, 1932; in force Jan. 2, 1933. | Canada grants British preferential tariff in return for preferential rates where such exist and for most-favoured-nation rates on non-preferential items. May be terminated on six months notice. |
| FEDERATION OF MALAYA.... | Malaya is a party to the Trade Agreement of 1937 between Canada and the United Kingdom. | Canada grants Malaya British preferential rates in return for such preferences as exist in the Malayan tariff. |
| NEW ZEALAND..... | Trade Agreement signed Apr. 23, 1932; in force May 24, 1932. GATT effective July 26, 1948. | The parties exchange specific preferences on scheduled goods and reciprocally concede British preferential rates on items not scheduled. May be terminated on six months notice. |
| PAKISTAN..... | Canada unilaterally accords Pakistan British preferential treatment but without contractual obligation. GATT effective July 30, 1948. | In addition to preferences granted to Pakistan, most-favoured-nation treatment is exchanged under GATT. |
| FEDERATION OF RHODESIA AND NYASALAND. | Northern Rhodesia and Nyasaland are parties to Agreement of 1937 between Canada and United Kingdom; an Agreement of 1932 between Canada and Southern Rhodesia expired in 1938, but the tariff treatment provided therein continues to be reciprocally accorded. GATT effective in Southern Rhodesia May 19, 1948; extended to whole Federation, Oct. 29, 1954. | Canada exchanges preferential tariffs with Northern and Southern Rhodesia. Canada accords Nyasaland the British preferential rates. |
| UNION OF SOUTH AFRICA.. | Trade Agreement signed Aug. 20, 1932; in force Oct. 13, 1932. Exchange of notes Aug. 2-31, 1935; effective retroactive from July 1, 1935. GATT effective June 14, 1948. | Agreement includes schedules of tariff preferences granted by each country. May be terminated on six months notice. Exchange of most-favoured-nation treatment. May be terminated on six months notice. |

**Tariff and Trade Arrangements with Commonwealth Countries as at
Oct. 1, 1957—concluded**

| Country | Agreement | Principal Terms |
|---------------------|--|---|
| UNITED KINGDOM..... | Trade Agreement signed Feb. 23, 1937; in force Sept. 1, 1937. Modified by an exchange of letters of Nov. 16, 1938, and an exchange of notes Oct. 30, 1947. GATT effective Jan. 1, 1948. | Various concessions by both countries including exchange of preferential tariff rates (some minor reservations by Canada). Extends to Colonies. |

**Tariff and Trade Arrangements with Non-Commonwealth Countries as at
Oct. 1, 1957**

| Country | Agreement | Principal Terms |
|------------------------|---|---|
| ARGENTINA..... | Trade Agreement signed Oct. 2, 1941; provisionally in force Nov. 15, 1941. | Exchange of most-favoured-nation treatment. Provisional application may be terminated on three months notice. |
| AUSTRIA..... | GATT effective Oct. 19, 1951. | Exchange of most-favoured-nation treatment. |
| BELGIUM-LUXEMBOURG.... | Convention of Commerce with Belgium-Luxembourg Economic Union (including Belgian colonies) entered into effect Oct. 22, 1924. GATT effective Jan. 1, 1948. | Exchange of most-favoured-nation treatment. May be terminated on one years notice. |
| BOLIVIA..... | Order in Council of July 20, 1935, accepted Article 15 of the United Kingdom-Bolivia Treaty of Commerce of Aug. 1, 1911. | Exchange of most-favoured-nation treatment. May be terminated on one years notice. |
| BRAZIL..... | Trade Agreement signed Oct. 17, 1941; provisionally in force from date of signing and definitively on Apr. 16, 1943. GATT effective July 31, 1948. | Exchange of most-favoured-nation treatment. May be terminated on six months notice. |
| BURMA..... | GATT effective July 29, 1948. | Exchange of most-favoured-nation treatment. |
| CAMBODIA..... | Franco-Canadian Trade Agreement of 1933 applied to Cambodia. | Since the creation of Cambodia as an independent state in 1955, Canada has continued to grant most-favoured-nation rates. |
| CHILE..... | Trade Agreement signed Sept. 10, 1941; provisionally in force Oct. 15, 1941, and definitively on Oct. 29, 1943. GATT effective Mar. 16, 1948. | Exchange of most-favoured-nation treatment. May be terminated on six months notice. |
| CHINA..... | <i>Modus vivendi</i> signed Sept. 26, 1946; in effect since Sept. 28, 1946. China withdrew from GATT on May 5, 1950. | Exchange of most-favoured-nation treatment. May be terminated on three months notice. |

**Tariff and Trade Arrangements with Non-Commonwealth Countries as at
Oct. 1, 1957—continued**

| Country | Agreement | Principal Terms |
|---|---|---|
| COLOMBIA..... | Treaty of Commerce with United Kingdom of Feb. 16, 1866, applies to Canada. Modified by protocol of Aug. 20, 1912, and exchange of notes Dec. 30, 1938. A Trade Agreement between Colombia and Canada was signed Feb. 20, 1946, but has not been put into force. | Exchange of most-favoured-nation treatment. May be terminated on three months notice. |
| COSTA RICA..... | <i>Modus vivendi</i> signed Nov. 18, 1950; brought into force Jan. 26, 1951. | Exchange of most-favoured-nation treatment. May be terminated on three months notice. |
| CUBA..... | GATT effective Jan. 1, 1948. | Exchange of most-favoured-nation treatment (excluding preferences accorded by Cuba to the United States). |
| CZECHOSLOVAKIA..... | Convention of Commerce signed Mar. 15, 1928; in force Nov. 14, 1928. GATT effective May 21, 1948. | Exchange of most-favoured-nation treatment. May be terminated on one years notice. |
| DENMARK (including GREENLAND). | Treaties of Peace and Commerce with United Kingdom of Feb. 13, 1660 and July 11, 1670, apply to Canada. GATT effective May 23, 1950. | Exchange of most-favoured-nation treatment. Declaration of May 9, 1912, provides means for separate termination by Dominions on one years notice. |
| DOMINICAN REPUBLIC..... | Trade Agreement signed Mar. 8, 1940; in force provisionally Mar. 15, 1950, and definitively Jan. 22, 1941. GATT effective May 19, 1950. | Exchange of most-favoured-nation treatment including scheduled concessions. May be terminated on six months notice. |
| ECUADOR..... | <i>Modus vivendi</i> signed Nov. 10, 1950; in force Dec. 1, 1950. | Exchange of most-favoured-nation treatment. May be terminated on three months notice. |
| EGYPT..... | Exchange of notes Nov. 26 and Dec. 3, 1952; in force Dec. 3, 1952. | Exchange of most-favoured-nation rates. May be terminated on six months notice. |
| EL SALVADOR..... | Exchange of notes of Nov. 2, 1937; in force Nov. 17, 1937. | Exchange of most-favoured-nation treatment. May be terminated on four months notice. |
| ETHIOPIA..... | Exchange of notes effective June 3, 1955. | Exchange of most-favoured-nation treatment. |
| FINLAND..... | Exchange of notes of Nov. 13-17, 1948; effective Nov. 17, 1948. GATT effective May 25, 1950. | Exchange of most-favoured-nation treatment. May be terminated on three months notice. |
| FRANCE AND FRENCH OVERSEAS TERRITORIES. | Trade Agreement signed May 12, 1933; in force June 10, 1933. Exchange of notes of Sept. 29, 1934, and additional protocol of Feb. 26, 1935. GATT effective Jan. 1, 1948. | Exchange of most-favoured-nation treatment including scheduled concessions. May be terminated on three months notice. |
| GERMANY, FEDERAL REPUBLIC OF | GATT effective Oct. 1, 1951. | Exchange of most-favoured-nation treatment. |

**Tariff and Trade Arrangements with Non-Commonwealth Countries as at
Oct. 1, 1957—continued**

| Country | Agreement | Principal Terms |
|----------------|---|--|
| GREECE..... | <i>Modus vivendi</i> by exchange of notes of July 24-28, 1947; effective Aug. 28, 1947. GATT effective Mar. 1, 1950. | Exchange of most-favoured-nation treatment. May be terminated on three months notice. |
| GREENLAND..... | (See Denmark.) | |
| GUATEMALA..... | Trade Agreement signed Sept. 28, 1937; in force Jan. 14, 1939. | Exchange of most-favoured-nation treatment. May be terminated on six months notice. |
| HAITI..... | Trade Agreement signed Apr. 23, 1937; in force Jan. 10, 1939. GATT effective Jan. 1, 1950. | Exchange of most-favoured-nation treatment. May be terminated on six months notice. |
| HONDURAS..... | Exchange of notes signed July 11, 1956, effective July 18, 1956. Ratified in Honduras Sept. 5, 1956. | Exchange of most-favoured-nation treatment. May be terminated on three months notice. |
| ICELAND..... | Although there is no contractual obligation, Canada and Iceland adhere to the terms of a treaty originally concluded between Denmark and the United Kingdom on Feb. 13, 1660. | Exchange of most-favoured-nation treatment. |
| INDONESIA..... | GATT effective Mar. 1, 1948. | Exchange of most-favoured-nation treatment. |
| IRAN..... | Special arrangement by Order in Council effective Feb. 1, 1951. | Canada grants most-favoured-nation tariff rates as long as Iran accords reciprocal treatment. |
| IRAQ..... | Special arrangement by Order in Council effective Sept. 15, 1951. | Canada grants and receives most-favoured-nation tariff rates. |
| ISRAEL..... | Canada-United Kingdom Agreement of 1937 applied under the British Palestine Mandate. | Since the creation of the State of Israel in May 1948, Canada has continued to grant most-favoured-nation rates. |
| ITALY..... | <i>Modus vivendi</i> by exchange of notes of Apr. 23-28, 1948; effective Apr. 28, 1948. GATT effective Jan. 1, 1950. | Exchange of most-favoured-nation treatment. May be terminated on three months notice. |
| JAPAN..... | Agreement on Commerce signed Mar. 31, 1954; effective June 7, 1954. GATT effective Sept. 10, 1955. | Exchange of most-favoured-nation treatment. Remains in force for one year from ratification and thereafter unless terminated on three months notice. |
| LAOS..... | Franco-Canadian Trade Agreement of 1933 applied to Laos. | Since the creation of Laos as an independent State in 1955, Canada has continued to grant most-favoured-nation rates. |
| LEBANON..... | Special arrangement by Order in Council of Nov. 19, 1946. Lebanon withdrew from GATT Mar. 1, 1951. | Canada grants most-favoured-nation tariff rates as long as Lebanon accords reciprocal treatment. |
| LIBERIA..... | Special arrangement by Order in Council of June 3, 1955. Liberia withdrew from GATT June 1, 1953. | Canada grants most-favoured-nation tariff rates as long as Liberia accords reciprocal treatment. |

**Tariff and Trade Arrangements with Non-Commonwealth Countries as at
Oct. 1, 1957—continued**

| Country | Agreement | Principal Terms |
|---|---|--|
| LIECHTENSTEIN..... | (See Switzerland.) | |
| LUXEMBOURG..... | (See Belgium.) | |
| MEXICO..... | Trade Agreement signed Feb. 8, 1946; in force provisionally same date. Ratifications exchanged on May 6, 1947; definitively in force 30 days from that date. | Exchange of most-favoured-nation treatment. May be terminated on six months notice. |
| MOROCCO..... | Various agreements applied to French, Spanish and International Zones of Morocco. | Since the creation of Morocco as an independent State in 1956, Canada has continued to grant most-favoured-nation rates. |
| NETHERLANDS..... | Convention of Commerce of July 11, 1924. Suspended during war; reinstated by exchange of notes Feb. 1 and 5, 1946. Includes Netherlands Antilles and Surinam. GATT effective Jan. 1, 1948. | Exchange of most-favoured-nation treatment. May be terminated on one years notice. |
| NICARAGUA..... | Trade Agreement signed Dec. 19, 1946; in force provisionally same date. GATT effective May 28, 1950. | Exchange of most-favoured-nation treatment. Provisional application may be terminated on three months notice. |
| NORWAY..... | Convention of Commerce and Navigation with United Kingdom of Mar. 18, 1826, applied to Canada. GATT effective July 10, 1948. | Exchange of most-favoured-nation treatment. Convention of May 16, 1913, provides means for separate termination by Dominions on one years notice. |
| PANAMA..... | Order in Council of July 20, 1935, accepted Article 12 of United Kingdom—Panama Treaty of Commerce of Sept. 25, 1928. Treaty terminated in 1942. | While contractual obligation has expired, Canada and Panama continue to exchange most-favoured-nation treatment. |
| PARAGUAY..... | Exchange of notes of May 21, 1940; in force June 21, 1940. | Exchange of most-favoured-nation treatment. May be terminated on three months notice. |
| PERU..... | GATT effective Oct. 8, 1951. | Exchange of most-favoured-nation treatment. |
| PHILIPPINES..... | No agreement at present. United States—Canada Agreement of 1938 (now suspended) applied to Philippines until Philippines attained independence in 1946. | Canada and Philippines continue to exchange most-favoured-nation treatment but without contractual obligation. |
| POLAND..... | Convention of Commerce signed July 3, 1935; in force Aug. 15, 1936. | Exchange of most-favoured-nation treatment including scheduled reductions. May be terminated on three months notice. |
| PORTUGAL, PORTUGUESE ADJACENT ISLANDS AND PORTUGUESE OVERSEAS PROVINCES. | Trade Agreement signed May 28, 1954, provisionally in effect July 1, 1954, definitively in force on ratification Apr. 29, 1955. | Exchange of most-favoured-nation treatment. Remains in effect for two years from ratification and thereafter unless terminated on three months notice. |

**Tariff and Trade Arrangements with Non-Commonwealth Countries as at
Oct. 1, 1957—continued**

| Country | Agreement | Principal Terms |
|--------------------------------------|---|---|
| SPAIN AND SPANISH POSSESSIONS. | <p>Since Aug. 1, 1928, Canada has adhered to the United Kingdom—Spain Treaty of Commerce of Oct. 31, 1922.</p> <p>Trade Agreement signed May 26, 1954, provisionally in effect July 1, 1954, definitively in force on ratification June 30, 1955.</p> | <p>Exchange of most-favoured-nation treatment. May be terminated on six months notice.</p> <p>Supplements and amends United Kingdom—Spanish Treaty of Commerce. Remains in effect for three years from ratification, and thereafter unless terminated on three months notice.</p> |
| SWEDEN..... | <p>United Kingdom—Sweden Convention of Commerce and Navigation of Mar. 18, 1826, applies to Canada.</p> <p>GATT effective May 1, 1950.</p> | <p>Exchange of most-favoured-nation treatment. Declaration of Nov. 27, 1911, provides means for separate termination by Dominions on one years notice.</p> |
| SWITZERLAND..... | <p>United Kingdom — Switzerland Treaty of Friendship, Commerce and Reciprocal Establishment of Sept. 6, 1855, applies to Canada. By exchange of notes Liechtenstein included under terms of this Agreement, effective Aug. 2, 1947.</p> | <p>Exchange of most-favoured-nation treatment. Convention of Mar. 30, 1914, provides means for separate termination by the Dominions on one years notice.</p> |
| SYRIA..... | <p>Special Arrangement by Order in Council of Nov. 19, 1946.</p> <p>Syria withdrew from GATT Aug. 6, 1951.</p> | <p>Canada grants most-favoured-nation tariff rates as long as Syria accords reciprocal treatment.</p> |
| TUNISIA..... | <p>Franco-Canadian Trade Agreement of 1933 applied to Tunisia (Tunisia is in customs union with France).</p> | <p>Since the creation of Tunisia as an independent State in 1956, Canada has continued to grant most-favoured-nation rates.</p> |
| TURKEY..... | <p>Exchange of notes signed Mar. 1, 1948; in effect Mar. 15, 1948.</p> <p>GATT effective Oct. 17, 1951.</p> | <p>Exchange of most-favoured-nation treatment. May be terminated on three months notice.</p> |
| UNION OF SOVIET SOCIALIST REPUBLICS. | <p>Trade Agreement signed Feb. 29, 1956. Ratifications exchanged May 26, 1956.</p> | <p>Exchange of most-favoured-nation treatment and undertaking by U.S.S.R. to purchase determined quantity of Canadian wheat. In force for three years from date of signature and may thereafter be extended by mutual agreement.</p> |
| UNITED STATES..... | <p>Trade Agreement signed Nov. 17, 1938; suspended as long as both countries continue to be contracting parties to GATT.</p> <p>GATT effective Jan. 1, 1948.</p> | <p>Most-favoured-nation treatment exchanged under 1938 Agreement is continued under GATT.</p> |
| URUGUAY..... | <p>Trade Agreement signed Aug. 12, 1936; in force May 15, 1940. Additional Protocol signed Oct. 19, 1953.</p> <p>GATT effective Dec. 16, 1953.</p> | <p>Exchange of most-favoured-nation treatment. May be terminated on six months notice.</p> |
| VIETNAM..... | <p>Franco-Canadian Trade Agreement of 1933 applied to Vietnam.</p> | <p>Since the creation of Vietnam as an independent State, Canada has continued to accord most-favoured-nation rates.</p> |

**Tariff and Trade Arrangements with Non-Commonwealth Countries as at
Oct. 1, 1957—concluded**

| Country | Agreement | Principal Terms |
|-----------------|---|--|
| VENEZUELA..... | <i>Modus vivendi</i> signed and brought into force Oct. 11, 1950. | Exchange of most-favoured-nation treatment. Made for one year subject to annual renewal. |
| YUGOSLAVIA..... | Trade Agreements Act of June 11, 1928, accepted Article 30 of United Kingdom - Serb - Croat - Slovene Treaty of Commerce and Navigation of May 12, 1927; in force Aug. 9, 1928. | Exchange of most-favoured-nation treatment. May be terminated on one years notice. |

CHAPTER XXIII.—PRICES*

CONSPECTUS

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| SECTION 2. CONSUMER PRICE INDEX..... | 1078 | | |

NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

Section 1.—Index Numbers of Wholesale Prices

The term “wholesale prices” refers in this Chapter to sales transactions that occur below the retail level; it has more of a connotation of bulk purchase than of any homogeneous level of distribution. Ingredients for the general wholesale price index are obtained mainly from manufacturers but include prices from wholesalers proper, assemblers of primary products, agents and the other types of commercial enterprises who trade in commodities of a type or in quantities characteristic of primary marketing functions. Wholesale price indexes are grouped according to a commodity classification scheme based on chief component material similarities. In addition, indexes classified according to degree of manufacture are available. For the latter, however, because significant groups of manufactured products are not directly included, tabulations are not attempted on narrower bases than “Raw and Partly Manufactured” and “Fully and Chiefly Manufactured” commodity groups. Wholesale price indexes are regularly released in the DBS monthly publication *Prices and Price Indexes* which contains related current series on retail and security prices. Volume 23 of that publication is a historical summary reaching back to the year 1867 for some series and, together with DBS Reference Paper 24, *Wholesale Prices Indexes 1930-1950*, contains an explanation of index construction and meaning.

The number and identity of commodities contained in the index has been virtually fixed since 1951 when the index was placed on a 1935-39 base. Commodities were included either because they bulked large in total marketings at that time or because they were

* Revised in the Prices Division, Dominion Bureau of Statistics.

considered reliable indicators of price change for commodity groups that did. Price movements displayed by the commodities priced are combined in such a way that they influence composite indexes in the proportions of total marketings including imports and exports during the base period.

General wholesale price indexes have been calculated by most countries for many years but the question "What does a general wholesale price index measure?" cannot be given a precise answer. A retail price index can be identified with consumer expenditure, but a general wholesale index covers a much wider range; yet it is not a measure of the purchasing power of money since it does not include prices of land, labour, securities or services, except in so far as prices of these things enter into commodity prices. As a conventional summary figure its use has tended toward a reference level against which to observe the behaviour of particular price groups such as farm products, raw materials and building materials. Thus, special wholesale groupings and commodity price relatives are now considered to be of greater importance than the general index itself.

Component indexes and individual price series have numerous uses. One of the most important is in escalator contracts which contain a price adjustment clause. Other major uses include: studies of replacement and construction costs in investment projects; analysis of price movements of both individual items and commodity groups in relation to purchases and sales; industrial planning and market analysis; valuation for tax purposes and inventory analysis; and studies in changes of physical volume. They are also used by business firms abroad in connection with sales and purchases in Canada.

The general wholesale price index declined moderately during 1957 after a continuous climb beginning in December 1954 and culminating in a postwar peak of 229.2 in January 1957. However, in the last month of the year the index showed some strength, rising to 226.1 from 224.1 in November.

Lower prices for vegetable products, animal products and non-ferrous metals were mainly responsible for the downward movement. Vegetable products began falling off gradually, followed by sharp losses in August to November. The December index, though, was two points above November. Animal products showed little change until June, and then rose to 246.0 in August, the highest point since October 1953. From then until November, lower prices for livestock and meats caused a sharp decline in the index. Prices of copper, lead and zinc have been tumbling since their postwar peak reached in 1956, as indicated by a drop in the group index from 190.4 in December 1956 to 169.3 in December 1957.

Textile products moved slightly higher in the first half of 1957 but lower prices for raw wool at the end of the year brought the index down a little below the December 1956 level. Wood products experienced somewhat the same adjustment but ended slightly above the December 1956 level. Higher steel prices at mid-year resulted in the index for the iron group reaching a peak of 256.5 in September, but a gradual decline placed the December index slightly below that for December 1956. Non-metallic minerals registered slight advances throughout the year, and chemical products changes, while higher on balance, were insufficient to have any effect on the total index.

1.—Annual Index Numbers of Wholesale Price Groups 1948-57 and Monthly Indexes 1956 and 1957

(1935-39=100)

| Year and Month | General Wholesale | Raw and Partly Manufactured Goods | Fully and Chiefly Manufactured Goods | Industrial Materials | Canadian Farm Products ¹ | | |
|----------------|-------------------|-----------------------------------|--------------------------------------|----------------------|-------------------------------------|--------|-------|
| | | | | | Field | Animal | Total |
| 1948..... | 193.4 | 196.3 | 192.4 | 222.7 | 200.6 | 263.7 | 232.1 |
| 1949..... | 198.3 | 197.1 | 199.2 | 218.0 | 191.9 | 265.4 | 228.7 |
| 1950..... | 211.2 | 212.8 | 211.0 | 244.6 | 191.9 | 281.4 | 236.7 |
| 1951..... | 240.2 | 237.9 | 242.4 | 296.1 | 200.4 | 336.9 | 268.6 |
| 1952..... | 226.0 | 218.7 | 230.7 | 252.6 | 223.0 | 277.5 | 250.2 |
| 1953..... | 220.7 | 207.0 | 228.8 | 232.3 | 179.4 | 263.8 | 221.6 |
| 1954..... | 217.0 | 204.8 | 224.2 | 223.7 | 170.9 | 256.2 | 213.6 |
| 1955..... | 218.9 | 209.7 | 224.5 | 236.0 | 180.1 | 245.1 | 212.6 |
| 1956..... | 225.6 | 215.8 | 231.5 | 248.2 | 179.4 | 246.9 | 213.2 |
| 1957..... | 227.4 | 209.4 | 237.9 | 240.3 | 160.5 | 258.0 | 209.2 |
| 1956 | | | | | | | |
| January..... | 222.0 | 212.9 | 227.4 | 246.1 | 172.1 | 235.0 | 203.5 |
| February..... | 222.2 | 213.3 | 227.6 | 247.2 | 173.2 | 232.3 | 202.8 |
| March..... | 223.3 | 214.7 | 228.4 | 248.8 | 177.8 | 231.1 | 204.4 |
| April..... | 224.6 | 216.3 | 229.5 | 248.9 | 182.7 | 231.9 | 207.3 |
| May..... | 225.4 | 217.3 | 230.3 | 247.8 | 191.5 | 238.0 | 214.7 |
| June..... | 226.5 | 219.2 | 231.3 | 248.5 | 196.4 | 251.9 | 224.2 |
| July..... | 226.6 | 219.0 | 231.6 | 247.4 | 210.6 | 256.5 | 233.5 |
| August..... | 227.0 | 217.0 | 233.2 | 249.2 | 177.2 | 253.2 | 217.7 |
| September..... | 227.4 | 216.2 | 234.4 | 249.5 | 166.3 | 259.6 | 213.0 |
| October..... | 227.0 | 214.3 | 234.7 | 247.7 | 166.0 | 256.2 | 211.1 |
| November..... | 226.6 | 213.3 | 234.6 | 247.7 | 169.0 | 255.9 | 212.5 |
| December..... | 228.0 | 216.4 | 235.1 | 249.8 | 170.4 | 256.4 | 213.4 |
| 1957 | | | | | | | |
| January..... | 229.2 | 217.8 | 236.3 | 251.1 | 172.1 | 257.2 | 214.6 |
| February..... | 228.2 | 214.9 | 236.5 | 248.4 | 167.4 | 259.0 | 213.2 |
| March..... | 228.4 | 212.5 | 237.8 | 247.0 | 166.3 | 253.4 | 209.8 |
| April..... | 228.5 | 211.7 | 238.4 | 246.2 | 165.8 | 255.1 | 210.4 |
| May..... | 228.0 | 209.6 | 238.9 | 242.2 | 163.5 | 255.3 | 209.4 |
| June..... | 228.1 | 209.8 | 238.9 | 240.6 | 160.6 | 262.2 | 211.4 |
| July..... | 228.2 | 209.2 | 239.5 | 239.8 | 161.1 | 270.2 | 215.7 |
| August..... | 227.6 | 207.9 | 239.2 | 238.6 | 153.8 | 271.3 | 212.6 |
| September..... | 227.0 | 206.9 | 238.8 | 236.8 | 153.2 | 263.8 | 208.5 |
| October..... | 225.0 | 203.6 | 237.4 | 232.5 | 152.8 | 248.6 | 200.7 |
| November..... | 224.1 | 203.3 | 236.1 | 228.9 | 153.7 | 245.7 | 199.7 |
| December..... | 226.1 | 206.0 | 237.2 | 231.8 | 155.4 | 253.7 | 204.6 |

¹ Wheat prices used in this index are Canadian Wheat Board buying prices for Nos. 1, 2 and 3 Manitoba Northern at Fort William-Port Arthur. The initial payment is first used and the index revised as further payments are announced. Between August 1945 and July 1950 the price included for No. 1 Manitoba Northern was \$1.83 per bu. while for subsequent crop years the price per bu. was as follows: 1950-51, \$1.85; 1951-52, \$1.83; 1952-53, \$1.82; 1953-54, \$1.56; 1954-55, \$1.65; 1955-56, \$1.61, for which year the final payment was announced on May 15, 1957. For the crop year 1956-57 the index is based on an initial payment price of \$1.40. Western oats and barley were brought under control of the Canadian Wheat Board Aug. 1, 1949. Since then prices used for Canadian Farm Products have been initial payments to farmers, with participation payments included whenever they are announced.

Index Numbers of Building Materials Prices.—Price movements of materials entering into building construction are currently measured by two special-purpose series: price index numbers of residential building materials and price index numbers of non-residential building materials* for which the base years are 1935-39 and 1949, respectively.

* Exclusive of engineering structures such as power dams, roads, railroads and bridges.

Details of weighting and construction and historical series may be found in the special bulletins* prepared at the time the indexes were first published. More recently the composite indexes have been calculated on an annual basis back to 1913; current indexes are published monthly in DBS Bulletin *Prices and Price Indexes*.

Advances and declines in building material prices in 1957 cancelled each other out so that the index remained fairly steady throughout the year. The residential building material index showed a fractional drop and the non-residential series moved up 2 p.c.

* *Price Index Numbers of Residential Building Materials 1926 to 1948* and DBS Reference Paper No. 43, *Non-residential Building Materials, Price Index, 1935-1952*.

2.—Annual Price Index Numbers of Residential Building Materials 1950-57 and Monthly Indexes 1956 and 1957

(1935-39=100)

| Year and Month | Composite Index (1949=100) ¹ | Composite Index | Principal Components | | | | | | | | Other Materials |
|--|---|-----------------|-------------------------|-----------------------|-------------------------|------------------------------|------------------|-----------------|--------------------------------|-----------------------------------|-----------------|
| | | | Cement, Sand and Gravel | Brick, Tile and Stone | Lumber and its Products | Lath, Plaster and Insulation | Roofing Material | Paint and Glass | Plumbing and Heating Equipment | Electrical Equipment and Fixtures | |
| GROUP WEIGHT AS A PERCENTAGE OF TOTAL..... | ... | ... | 42.6 | 18.6 | 11.3 | 7.6 | 5.0 | 5.0 | 3.8 | 3.2 | 2.9 |
| 1950..... | 106.4 | 242.7 | 131.3 | 163.8 | 349.2 | 116.7 | 235.4 | 174.8 | 183.2 | 184.5 | 181.1 |
| 1951..... | 125.5 | 286.2 | 140.9 | 180.7 | 425.0 | 126.3 | 235.8 | 197.8 | 210.4 | 213.3 | 212.7 |
| 1952..... | 124.9 | 284.8 | 149.5 | 195.3 | 415.7 | 128.5 | 217.7 | 194.9 | 215.6 | 212.0 | 226.3 |
| 1953..... | 123.9 | 282.6 | 151.8 | 205.8 | 410.6 | 128.5 | 218.6 | 203.8 | 209.0 | 211.4 | 229.5 |
| 1954..... | 121.7 | 277.5 | 151.3 | 207.4 | 400.5 | 128.8 | 233.4 | 208.9 | 202.8 | 207.7 | 226.6 |
| 1955..... | 124.3 | 283.4 | 149.4 | 209.5 | 409.4 | 125.3 | 244.5 | 219.7 | 207.2 | 229.2 | 230.3 |
| 1956..... | 128.5 | 292.9 | 149.7 | 218.8 | 420.2 | 130.8 | 259.6 | 226.9 | 217.9 | 243.7 | 243.7 |
| 1957..... | 128.4 | 292.8 | 153.6 | 223.8 | 415.2 | 136.9 | 253.3 | 225.4 | 227.6 | 209.2 | 253.8 |
| 1956 | | | | | | | | | | | |
| January..... | 127.1 | 289.9 | 149.6 | 209.3 | 416.7 | 127.3 | 261.2 | 228.0 | 214.1 | 248.4 | 238.8 |
| February..... | 127.1 | 289.9 | 149.6 | 209.3 | 416.6 | 127.3 | 261.2 | 226.3 | 214.6 | 248.4 | 238.8 |
| March..... | 127.9 | 291.6 | 149.6 | 216.8 | 419.4 | 127.3 | 254.3 | 226.3 | 214.6 | 256.0 | 241.0 |
| April..... | 128.8 | 293.7 | 149.6 | 216.8 | 423.4 | 130.0 | 253.9 | 228.0 | 214.6 | 256.4 | 241.0 |
| May..... | 129.1 | 294.4 | 149.3 | 221.3 | 424.6 | 130.0 | 253.9 | 228.0 | 214.6 | 256.3 | 241.0 |
| June..... | 129.0 | 294.1 | 149.3 | 221.3 | 423.2 | 130.6 | 264.8 | 226.7 | 214.6 | 255.6 | 241.0 |
| July..... | 129.0 | 294.2 | 149.8 | 221.3 | 423.6 | 132.9 | 264.8 | 226.7 | 216.1 | 238.3 | 241.0 |
| August..... | 129.0 | 294.2 | 149.8 | 221.3 | 421.5 | 132.9 | 264.8 | 226.7 | 219.9 | 238.3 | 244.0 |
| September..... | 128.7 | 293.5 | 149.8 | 221.3 | 418.8 | 132.9 | 264.8 | 226.7 | 221.5 | 237.9 | 248.5 |
| October..... | 128.8 | 293.6 | 149.8 | 222.2 | 418.4 | 132.9 | 261.6 | 226.7 | 223.0 | 237.1 | 248.5 |
| November..... | 128.7 | 293.4 | 149.8 | 222.2 | 418.8 | 132.9 | 255.2 | 226.7 | 223.8 | 225.9 | 250.4 |
| December..... | 128.4 | 292.7 | 150.4 | 222.2 | 417.6 | 132.9 | 255.2 | 225.8 | 223.0 | 225.4 | 250.4 |
| 1957 | | | | | | | | | | | |
| January..... | 128.8 | 293.6 | 152.8 | 225.5 | 418.9 | 132.9 | 255.2 | 225.6 | 223.0 | 225.1 | 250.4 |
| February..... | 128.8 | 293.7 | 153.8 | 225.5 | 417.8 | 133.0 | 255.2 | 224.3 | 225.7 | 218.9 | 255.6 |
| March..... | 128.9 | 293.8 | 153.8 | 223.5 | 418.4 | 133.0 | 258.7 | 223.9 | 226.3 | 213.9 | 255.6 |
| April..... | 128.9 | 293.9 | 153.3 | 223.5 | 418.5 | 134.0 | 255.5 | 223.9 | 226.6 | 213.9 | 255.6 |
| May..... | 129.3 | 294.8 | 153.7 | 223.5 | 418.9 | 138.7 | 255.5 | 223.9 | 227.7 | 213.9 | 254.1 |
| June..... | 129.1 | 294.3 | 153.7 | 223.5 | 418.0 | 138.7 | 255.5 | 223.9 | 227.7 | 213.6 | 253.3 |
| July..... | 129.1 | 294.3 | 153.7 | 223.5 | 417.6 | 138.7 | 255.5 | 228.0 | 229.3 | 206.2 | 252.6 |
| August..... | 128.8 | 293.6 | 153.7 | 223.5 | 416.5 | 138.7 | 252.3 | 226.3 | 229.4 | 203.8 | 252.6 |
| September..... | 128.4 | 292.7 | 153.7 | 223.5 | 414.5 | 138.7 | 252.3 | 226.3 | 229.4 | 200.2 | 254.0 |
| October..... | 127.8 | 291.4 | 153.7 | 223.5 | 411.3 | 138.7 | 252.3 | 226.3 | 229.4 | 201.3 | 254.0 |
| November..... | 126.6 | 288.7 | 153.7 | 223.5 | 406.2 | 138.7 | 245.9 | 226.3 | 228.1 | 200.5 | 254.0 |
| December..... | 126.5 | 288.5 | 154.0 | 223.5 | 405.9 | 138.7 | 245.9 | 226.3 | 228.1 | 198.6 | 254.0 |

¹ Arithmetically converted to base 1949=100 for comparability with price indexes of non-residential building materials shown in Table 3.

3.—Annual Price Index Numbers of Non-residential Building Materials 1950-57 and Monthly Indexes 1956 and 1957

(1949=100)

| Year and Month | Composite Index | Principal Components | | | | | | |
|--|-----------------|----------------------|---------------------------------------|------------------------------------|------------------------------------|----------------------------|-------------------------|-------|
| | | Steel and Metal Work | Plumbing, Heating and Other Equipment | Electrical Equipment and Materials | Aggregate, Cement and Concrete Mix | Lumber and Lumber Products | Blocks, Brick and Stone | Tile |
| GROUP WEIGHT AS A PERCENTAGE OF TOTAL..... | ... | 20.1 | 21.4 | 11.5 | 11.1 | 10.5 | 9.1 | 3.8 |
| 1950..... | 105.0 | 107.3 | 103.0 | 105.8 | 103.2 | 110.3 | 104.3 | 104.9 |
| 1951..... | 118.6 | 122.0 | 115.7 | 125.4 | 111.3 | 128.3 | 113.0 | 110.6 |
| 1952..... | 123.2 | 131.3 | 121.3 | 121.7 | 117.4 | 127.9 | 119.7 | 115.5 |
| 1953..... | 124.4 | 134.7 | 119.2 | 119.6 | 120.2 | 127.8 | 125.9 | 117.1 |
| 1954..... | 121.8 | 128.2 | 115.2 | 117.6 | 120.9 | 124.5 | 127.0 | 120.6 |
| 1955..... | 123.4 | 129.9 | 118.0 | 121.3 | 120.3 | 127.6 | 127.0 | 120.3 |
| 1956..... | 128.0 | 139.0 | 123.4 | 123.6 | 117.0 | 131.5 | 130.3 | 120.8 |
| 1957..... | 130.0 | 147.7 | 124.1 | 118.4 | 119.4 | 128.7 | 134.0 | 118.5 |
| 1956 | | | | | | | | |
| January..... | 126.3 | 135.1 | 121.7 | 124.9 | 117.5 | 130.2 | 127.3 | 120.1 |
| February..... | 126.5 | 135.2 | 122.6 | 124.9 | 117.5 | 130.2 | 126.9 | 120.1 |
| March..... | 127.0 | 135.2 | 122.4 | 126.1 | 115.8 | 131.7 | 129.8 | 120.7 |
| April..... | 127.1 | 135.3 | 122.4 | 126.1 | 115.6 | 132.4 | 129.8 | 121.8 |
| May..... | 127.2 | 135.3 | 122.4 | 125.9 | 115.5 | 132.8 | 131.0 | 121.6 |
| June..... | 127.5 | 135.7 | 122.4 | 125.8 | 116.1 | 132.6 | 131.0 | 122.0 |
| July..... | 127.2 | 135.6 | 122.3 | 123.0 | 116.7 | 132.8 | 131.2 | 119.3 |
| August..... | 129.4 | 144.0 | 124.3 | 123.0 | 116.7 | 132.3 | 130.2 | 123.1 |
| September..... | 129.2 | 144.1 | 124.8 | 120.5 | 116.7 | 131.2 | 130.2 | 120.4 |
| October..... | 129.8 | 144.1 | 125.2 | 122.1 | 117.8 | 130.9 | 132.2 | 121.0 |
| November..... | 129.5 | 144.0 | 125.2 | 120.2 | 117.8 | 130.6 | 132.2 | 120.1 |
| December..... | 129.7 | 144.2 | 125.1 | 120.2 | 120.2 | 129.9 | 132.2 | 119.7 |
| 1957 | | | | | | | | |
| January..... | 129.8 | 144.3 | 124.7 | 120.1 | 120.9 | 129.7 | 133.4 | 119.6 |
| February..... | 130.0 | 144.8 | 125.7 | 119.1 | 121.2 | 129.4 | 133.4 | 119.8 |
| March..... | 130.1 | 144.8 | 125.5 | 119.5 | 121.3 | 129.4 | 133.4 | 119.8 |
| April..... | 129.8 | 144.9 | 124.1 | 119.5 | 121.2 | 129.5 | 133.4 | 119.8 |
| May..... | 129.6 | 145.2 | 123.8 | 119.5 | 118.7 | 129.7 | 133.4 | 119.8 |
| June..... | 129.4 | 145.2 | 123.3 | 119.4 | 118.1 | 129.5 | 134.3 | 117.2 |
| July..... | 130.5 | 150.7 | 124.0 | 118.2 | 118.1 | 129.6 | 134.3 | 117.2 |
| August..... | 130.4 | 150.7 | 123.9 | 117.8 | 118.1 | 129.0 | 134.3 | 118.2 |
| September..... | 130.3 | 150.6 | 123.8 | 116.9 | 118.1 | 128.5 | 134.6 | 118.0 |
| October..... | 130.3 | 150.5 | 123.8 | 118.3 | 118.1 | 127.6 | 134.6 | 117.7 |
| November..... | 130.1 | 150.6 | 123.3 | 118.4 | 118.1 | 126.2 | 134.6 | 117.7 |
| December..... | 130.0 | 150.7 | 123.3 | 114.7 | 120.4 | 126.1 | 134.6 | 117.7 |

World Wholesale Price Indexes.—Price changes within different countries have varied widely during the years. Comparisons of Canadian wholesale price indexes and those of other countries are given in Table 4.

4.—Index Numbers of Wholesale Prices in Canada and Other Countries 1955 and 1956

(BASE: 1953=100. SOURCE: *United Nations Monthly Bulletin of Statistics*, November 1957.)

| Country | 1955 | 1956 | Country | 1955 | 1956 |
|-------------------------|-----------|------------|---------------------|------|------|
| Belgium..... | 101 | 104 | Iran..... | 115 | 123 |
| Brazil..... | 147 | 176 | Israel..... | 124 | 131 |
| Canada..... | 99 | 102 | Korea, South..... | 225 | 303 |
| Chile..... | 277 | 454 | Netherlands..... | 102 | 104 |
| Denmark..... | 103 | 107 | New Zealand..... | 100 | 104 |
| Dominican Republic..... | 95 | 94 | Norway..... | 104 | 109 |
| Egypt..... | 99 | 110 | Sweden..... | 104 | 109 |
| France..... | 98 | 102 | Switzerland..... | 101 | 103 |
| Germany (Western)..... | 101 | 103 | Turkey..... | 119 | 142 |
| Greece..... | 120 | 129 | United Kingdom..... | 105 | 107 |
| India..... | 87 | 97 | United States..... | 101 | 104 |

Section 2.—Consumer Price Index

The Consumer Price Index was constructed to replace the Cost-of-Living Index and was first published in October 1952. The purpose of the new index was the same as that of the old—to measure the average percentage change in retail prices of goods and services bought by a large and representative group of Canadian urban families. DBS report *The Consumer Price Index, January 1949-August 1952* contains detailed information on such aspects of the new index as purpose, family coverage, base period, and details of items included as well as their relative importance. It also gives the formula used in calculating the index, outlines methods of price collection and explains special features, such as methods of incorporating seasonal variations in food consumption, and changes in the price element of home-ownership costs.

Since the base year, 1949, the consumer price index has experienced several distinct periods of varying price movement which are summarized below.

Years 1950-51.—This was a period of first moderate and then accelerating price increases during which the index rose from 100.1 in January 1950 to 106.6 in December 1950 and to 118.1 by December 1951. Much of this price movement resulted from the impact of the Korean war.

Years 1952-53.—After continuing to rise to 118.2 in January 1952, a sequence of generally downward adjustments occurred bringing the index to 114.4 in May 1953, the lowest point since June 1951, 3.2 p.c. below the January 1952 peak. Minor increases brought the index back to 115.8 by December 1953.

Years 1954-55.—This two-year period proved to be the most stable since the end of World War II as the index moved narrowly around the 116 level, averaging 116.2 in 1954 and 116.4 in 1955. Monthly movements throughout these two years were mainly seasonal and reflected no clearcut upward or downward trends.

Years 1956-57.—After a continuance of the stability of 1954-55 in the early months of 1956, with the May index at 116.6, a moderate but continuing upward trend developed. The previous postwar peak was passed when the index reached 118.5 in July and the trend continued upward to 120.4 by December and to 123.4 by the following October, dropping slightly to 123.1 in December of 1957.

Throughout the period since 1949, significant variations in movement took place in the major components of the consumer price index. Some of the trends, by groups, are examined below.

Food.—Following a fairly steady period in the first half of 1950, foods started a rapid and continuous climb to a peak of 122.5 in November-December of 1951, a level not equalled again up to mid-1957. Fairly sharp declines throughout the first half of 1952 brought the index back to around 116 and it held remarkably steady at about that level, except for seasonal changes, until early 1956 when it dropped to 109.1 in March. However, by May it had risen to 109.3 and recorded a steady advance to 121.9 in September 1957 but dropped again to 118.8 by the end of the year.

Non-food.—This group also climbed to a peak in the latter half of 1951, but to a somewhat lower level of about 116. It then experienced a long but very gradual decline to reach a low point of 110 in mid-1955. Subsequently it developed a steady, gradual trend upwards, standing at about 115 in December 1957.

Services (excluding shelter).—Unlike both food and non-food commodity groupings which reflected considerable price adjustments to lower levels following the Korean war peak of late 1951, services experienced an uninterrupted rise throughout the entire period 1949 to the end of 1957, showing toward the end of that period a distinct tendency to increase at an even more rapid rate. As of December 1957 services recorded the largest over-all increase since 1949 of all groups discussed here.

Shelter.—This component, which covers rents only, rose steadily from 1949 to December 1957. However, though continuing to rise throughout the period, there was a flattening in the rate of increase after late 1955.

5.—Annual Consumer Price Index 1950-57 and Monthly Indexes 1956 and 1957

(1949=100)

| Year and Month | Food | Household Operation | Shelter | Clothing | Other Com- modities and Services | Composite Index |
|---|-------|------------------------|---------|----------|--|--------------------|
| GROUP WEIGHT AS A PERCENTAGE OF TOTAL..... | 31.7 | 17.3 | 14.8 | 11.5 | 24.7 | 100.0 |
| 1950..... | 102.6 | 102.4 | 106.2 | 99.7 | 103.1 | 102.9 |
| 1951..... | 117.0 | 113.1 | 114.4 | 109.8 | 111.5 | 113.7 |
| 1952..... | 116.8 | 116.2 | 120.2 | 111.8 | 116.0 | 116.5 |
| 1953..... | 112.6 | 117.0 | 123.6 | 110.1 | 115.8 | 115.5 |
| 1954..... | 112.2 | 117.4 | 126.5 | 109.4 | 117.4 | 116.2 |
| 1955..... | 112.1 | 116.4 | 129.4 | 108.0 | 118.1 | 116.4 |
| 1956..... | 113.4 | 117.1 | 132.5 | 108.6 | 120.9 | 118.1 |
| 1957..... | 118.6 | 119.6 | 134.9 | 108.5 | 126.1 | 121.9 |
| 1956 | | | | | | |
| January..... | 111.5 | 116.5 | 131.3 | 108.6 | 119.0 | 116.8 |
| February..... | 109.9 | 116.7 | 131.5 | 108.6 | 119.3 | 116.4 |
| March..... | 109.1 | 116.8 | 131.6 | 108.7 | 119.9 | 116.4 |
| April..... | 109.7 | 116.6 | 131.9 | 108.7 | 120.1 | 116.6 |
| May..... | 109.3 | 116.5 | 132.1 | 108.8 | 120.5 | 116.6 |
| June..... | 112.5 | 116.7 | 132.6 | 108.6 | 120.6 | 117.8 |
| July..... | 114.4 | 116.7 | 132.7 | 108.6 | 121.1 | 118.5 |
| August..... | 115.9 | 116.8 | 133.0 | 108.4 | 121.3 | 119.1 |
| September..... | 115.5 | 117.1 | 133.1 | 108.4 | 121.4 | 119.0 |
| October..... | 117.4 | 117.7 | 133.3 | 108.5 | 121.6 | 119.8 |
| November..... | 117.9 | 118.1 | 133.4 | 108.4 | 122.8 | 120.3 |
| December..... | 117.5 | 118.6 | 133.5 | 108.6 | 122.9 | 120.4 |

5.—Annual Consumer Price Index 1950-57 and Monthly Indexes 1956 and 1957—concluded

(1949=100)

| Year and Month | Food | Household Operation | Shelter | Clothing | Other Commodities and Services | Composite Index |
|----------------|-------|---------------------|---------|----------|--------------------------------|-----------------|
| 1957 | | | | | | |
| January..... | 117.1 | 119.0 | 133.6 | 107.6 | 123.1 | 120.3 |
| February..... | 117.2 | 119.1 | 133.8 | 107.4 | 123.8 | 120.5 |
| March..... | 116.4 | 119.5 | 134.0 | 108.2 | 124.2 | 120.5 |
| April..... | 116.7 | 119.4 | 134.0 | 108.5 | 125.1 | 120.9 |
| May..... | 116.7 | 119.2 | 134.2 | 108.5 | 126.3 | 121.1 |
| June..... | 117.7 | 119.1 | 134.8 | 108.4 | 126.5 | 121.6 |
| July..... | 118.2 | 119.6 | 135.1 | 108.4 | 126.5 | 121.9 |
| August..... | 120.2 | 119.7 | 135.3 | 108.2 | 126.9 | 122.6 |
| September..... | 121.9 | 119.8 | 135.6 | 108.3 | 127.1 | 123.3 |
| October..... | 121.7 | 120.1 | 135.9 | 108.7 | 127.4 | 123.4 |
| November..... | 120.2 | 120.5 | 136.3 | 109.8 | 127.7 | 123.3 |
| December..... | 118.8 | 120.6 | 136.7 | 109.9 | 128.4 | 123.1 |

Table 6 provides single commodity price relatives on the base 1949 = 100 for a number of important foods entering into the food component of the consumer price index. It also provides a record of average prices based on the actual average level of prices prevailing in October 1952 and calculated for the other months on the basis of the price relatives.

6.—Urban Average and Relative Retail Prices of Staple Foods 1950-57 and by Month 1956 and 1957

(1949=100)

| Year and Month | Beef, sirloin, per lb. | | Pork, rib chops ¹ , per lb. | | Lard, pure, per lb. | | Eggs, "A", fresh, per doz. | | Milk, fresh, per qt. | |
|----------------|------------------------|----------------|--|--------------------|---------------------|----------------|----------------------------|----------------|----------------------|----------------|
| | Average Price | Price Relative | Average Price | Price Relative | Average Price | Price Relative | Average Price | Price Relative | Average Price | Price Relative |
| | cts. | | cts. | | cts. | | cts. | | cts. | |
| 1950..... | 82.8 | 117.6 | 63.4 | 99.3 | 22.4 | 95.3 | 56.5 | 91.8 | 18.3 | 102.9 |
| 1951..... | 101.1 | 143.5 | 73.3 | 114.8 | 28.4 | 121.1 | 71.6 | 116.5 | 19.6 | 110.0 |
| 1952..... | 93.4 | 132.7 | 63.2 | 99.0 | 17.0 | 72.5 | 59.1 | 96.0 | 21.1 | 118.4 |
| 1953..... | 79.6 | 113.0 | 72.5 | 113.7 | 20.8 | 88.4 | 67.6 | 109.9 | 21.1 | 118.5 |
| 1954..... | 77.0 | 109.4 | 66.4 ¹ | 116.8 ¹ | 26.3 | 112.2 | 57.1 | 92.9 | 21.1 | 118.5 |
| 1955..... | 80.0 | 113.6 | 61.5 | 108.2 | 22.4 | 95.2 | 61.5 | 99.9 | 21.1 | 118.5 |
| 1956..... | 81.6 | 115.9 | 64.4 | 113.2 | 21.8 | 92.9 | 63.2 | 102.7 | 21.2 | 119.1 |
| 1957..... | 84.3 | 119.7 | 74.6 | 131.1 | 25.6 | 109.0 | 56.0 | 91.0 | 22.5 | 126.2 |
| 1956 | | | | | | | | | | |
| January..... | 79.7 | 113.2 | 57.4 | 100.9 | 21.6 | 92.0 | 65.2 | 106.0 | 21.1 | 118.5 |
| February..... | 78.4 | 111.3 | 55.8 | 98.1 | 21.2 | 90.3 | 52.8 | 85.8 | 21.1 | 118.5 |
| March..... | 76.0 | 107.9 | 56.0 | 98.4 | 20.7 | 88.2 | 55.6 | 90.4 | 21.1 | 118.5 |
| April..... | 74.3 | 105.5 | 55.4 | 97.5 | 20.7 | 88.2 | 58.9 | 95.7 | 21.1 | 118.5 |
| May..... | 76.0 | 107.9 | 57.0 | 100.2 | 21.0 | 89.5 | 60.5 | 98.3 | 21.1 | 118.5 |
| June..... | 80.6 | 114.5 | 64.4 | 113.3 | 21.3 | 90.7 | 61.8 | 100.4 | 21.1 | 118.5 |
| July..... | 84.3 | 119.7 | 68.3 | 120.1 | 21.2 | 90.3 | 67.2 | 109.3 | 21.1 | 118.5 |
| August..... | 87.0 | 123.6 | 70.0 | 123.1 | 21.2 | 90.3 | 72.0 | 117.1 | 21.1 | 118.5 |
| September..... | 89.6 | 127.3 | 70.9 | 124.7 | 21.8 | 92.9 | 71.5 | 116.3 | 21.1 | 118.5 |
| October..... | 87.3 | 124.0 | 72.2 | 126.9 | 22.6 | 96.3 | 70.6 | 114.7 | 21.1 | 118.5 |
| November..... | 83.8 | 119.0 | 71.5 | 125.7 | 23.8 | 101.4 | 67.7 | 110.0 | 21.7 | 121.9 |
| December..... | 82.1 | 116.6 | 73.4 | 129.0 | 24.5 | 104.4 | 54.7 | 88.9 | 21.8 | 122.5 |

¹ "Pork, fresh loins" prior to 1954."

6.—Urban Average and Relative Retail Prices of Staple Foods 1950-57 and by Month 1956 and 1957—concluded

(1949=100)

| Year and Month | Beef, sirloin, per lb. | | Pork, rib chops, per lb. | | Lard, pure, per lb. | | Eggs, "A", fresh, per doz. | | Milk, fresh, per qt. | |
|----------------|------------------------------|-------------------|-----------------------------------|-------------------|---------------------------|-------------------|----------------------------------|-------------------|----------------------------|-------------------|
| | Average Price | Price Relative | Average Price | Price Relative | Average Price | Price Relative | Average Price | Price Relative | Average Price | Price Relative |
| 1957 | cts. | | cts. | | cts. | | cts. | | cts. | |
| January..... | 82.0 | 116.5 | 72.0 | 126.6 | 25.3 | 107.8 | 52.4 | 85.2 | 22.1 | 124.2 |
| February..... | 81.9 | 116.3 | 72.2 | 126.9 | 25.8 | 109.9 | 50.2 | 81.6 | 22.1 | 124.2 |
| March..... | 81.1 | 115.2 | 72.0 | 126.6 | 26.0 | 110.8 | 50.6 | 82.3 | 22.1 | 124.2 |
| April..... | 82.1 | 116.6 | 70.5 | 124.0 | 26.0 | 110.8 | 50.1 | 81.5 | 22.1 | 124.2 |
| May..... | 84.8 | 120.4 | 70.0 | 123.1 | 26.0 | 110.8 | 50.3 | 81.8 | 22.1 | 124.2 |
| June..... | 86.9 | 123.4 | 77.3 | 136.0 | 25.5 | 108.6 | 50.1 | 81.5 | 22.4 | 125.8 |
| July..... | 87.4 | 124.1 | 79.7 | 140.1 | 25.3 | 107.8 | 53.4 | 86.8 | 22.4 | 125.8 |
| August..... | 87.7 | 124.6 | 82.9 | 145.7 | 25.5 | 108.6 | 63.4 | 103.0 | 22.4 | 125.8 |
| September..... | 87.2 | 123.9 | 83.1 | 146.2 | 25.5 | 108.6 | 65.7 | 106.8 | 22.5 | 126.4 |
| October..... | 84.8 | 120.4 | 74.0 | 130.1 | 25.5 | 108.6 | 64.5 | 104.8 | 23.1 | 129.8 |
| November..... | 81.8 | 116.2 | 69.9 | 122.9 | 25.4 | 108.2 | 64.2 | 104.3 | 23.1 | 129.8 |
| December..... | 83.5 | 118.6 | 71.0 | 124.8 | 25.2 | 107.4 | 57.0 | 92.7 | 23.2 | 130.3 |
| 1956 | | | | | | | | | | |
| Year and Month | Flour, per lb. | | Tomatoes, canned, 2½'s, tin | | Potatoes, 10 lb. | | Sugar, granulated, per lb. | | Bread, per lb. | |
| | Average Price | Price Relative | Average Price | Price Relative | Average Price | Price Relative | Average Price | Price Relative | Average Price | Price Relative |
| | cts. | | cts. | | cts. | | cts. | | cts. | |
| 1950..... | 7.3 | 104.8 | 17.7 | 88.0 | 33.2 | 95.4 | 10.6 | 114.4 | 10.6 | 104.6 |
| 1951..... | 7.5 | 106.9 | 23.1 | 115.0 | 34.8 | 99.9 | 12.0 | 129.8 | 11.7 | 115.5 |
| 1952..... | 7.4 | 105.9 | 28.8 | 143.6 | 68.6 | 196.9 | 11.2 | 121.0 | 12.0 | 119.3 |
| 1953..... | 7.6 | 108.9 | 24.4 | 121.8 | 39.0 | 111.8 | 10.0 | 107.8 | 12.3 | 121.5 |
| 1954..... | 7.7 | 110.2 | 21.5 | 107.4 | 37.5 | 107.6 | 9.4 | 101.8 | 12.8 | 126.8 |
| 1955..... | 7.4 | 106.4 | 26.3 | 131.3 | 46.8 | 134.5 | 9.2 | 99.7 | 12.8 | 126.4 |
| 1956..... | 7.6 | 108.8 | 27.3 | 136.1 | 49.7 | 142.6 | 9.3 | 100.4 | 13.3 | 131.6 |
| 1957..... | 7.9 | 113.3 | 29.1 | 144.8 | 42.1 | 120.8 | 12.3 | 133.1 | 14.3 | 141.4 |
| 1956 | | | | | | | | | | |
| January..... | 7.4 | 106.2 | 25.6 | 127.6 | 36.1 | 103.6 | 9.1 | 98.6 | 12.8 | 126.8 |
| February..... | 7.5 | 107.6 | 26.1 | 130.1 | 40.0 | 114.8 | 9.1 | 98.6 | 12.8 | 126.8 |
| March..... | 7.5 | 107.6 | 26.2 | 130.6 | 40.6 | 116.5 | 9.1 | 98.6 | 12.9 | 127.8 |
| April..... | 7.5 | 107.6 | 26.3 | 131.1 | 48.5 | 139.2 | 9.1 | 98.6 | 12.9 | 127.8 |
| May..... | 7.5 | 107.6 | 26.6 | 132.6 | 51.0 | 146.4 | 9.1 | 98.6 | 13.0 | 128.8 |
| June..... | 7.5 | 107.6 | 26.9 | 134.1 | 68.5 | 196.6 | 9.1 | 98.6 | 13.1 | 129.8 |
| July..... | 7.5 | 107.6 | 27.1 | 135.1 | 86.1 | 247.2 | 9.2 | 99.7 | 13.4 | 132.8 |
| August..... | 7.6 | 109.0 | 27.2 | 135.6 | 66.5 | 190.9 | 9.3 | 100.8 | 13.5 | 133.8 |
| September..... | 7.6 | 109.0 | 27.4 | 136.6 | 40.3 | 115.7 | 9.3 | 100.8 | 13.5 | 133.8 |
| October..... | 7.7 | 110.5 | 28.4 | 141.6 | 37.6 | 107.9 | 9.3 | 100.8 | 13.5 | 133.8 |
| November..... | 7.8 | 111.9 | 29.7 | 148.0 | 38.1 | 109.4 | 9.3 | 100.8 | 13.9 | 137.8 |
| December..... | 7.9 | 113.3 | 30.1 | 150.0 | 42.8 | 122.9 | 10.2 | 110.6 | 14.0 | 138.8 |
| 1957 | | | | | | | | | | |
| January..... | 7.9 | 113.3 | 30.3 | 151.0 | 44.3 | 127.2 | 10.7 | 116.0 | 14.1 | 139.8 |
| February..... | 7.9 | 113.3 | 30.3 | 151.0 | 46.5 | 133.5 | 12.5 | 135.5 | 14.2 | 140.8 |
| March..... | 7.9 | 113.3 | 30.1 | 150.0 | 43.8 | 125.7 | 12.5 | 135.5 | 14.2 | 140.8 |
| April..... | 7.9 | 113.3 | 29.9 | 149.0 | 41.7 | 119.7 | 12.7 | 137.7 | 14.3 | 141.8 |
| May..... | 7.9 | 113.3 | 29.9 | 149.0 | 42.5 | 122.0 | 12.8 | 138.7 | 14.3 | 141.8 |
| June..... | 7.9 | 113.3 | 29.5 | 147.0 | 42.1 | 120.9 | 12.8 | 138.7 | 14.3 | 141.8 |
| July..... | 7.9 | 113.3 | 29.3 | 146.0 | 47.0 | 134.9 | 12.7 | 137.7 | 14.3 | 141.8 |
| August..... | 7.9 | 113.3 | 29.1 | 145.0 | 42.1 | 120.9 | 12.6 | 136.6 | 14.3 | 141.8 |
| September..... | 7.9 | 113.3 | 28.8 | 143.5 | 38.5 | 110.5 | 12.3 | 133.3 | 14.3 | 141.8 |
| October..... | 7.9 | 113.3 | 28.1 | 140.0 | 38.3 | 109.9 | 12.1 | 131.2 | 14.3 | 141.8 |
| November..... | 7.9 | 113.3 | 27.0 | 134.5 | 38.5 | 110.5 | 11.9 | 129.0 | 14.3 | 141.8 |
| December..... | 7.9 | 113.3 | 26.5 | 132.0 | 39.6 | 113.7 | 11.7 | 126.8 | 14.2 | 140.8 |

Consumer Price Indexes for Regional Cities.—Table 7 gives regional consumer price indexes for ten cities or city combinations. These indexes are not designed to show whether it costs more or less to live in one city than in another and should not be used for that purpose. Their function is to measure percentage changes in retail prices—over a certain time in each city or city combination—of a fixed basket of goods and services representing the level of consumption of a particular group of families.

7.—Consumer Price Indexes for Regional Cities 1950-57 and by Month 1956 and 1957

(1949=100)

| Year and Month | St. John's, Nfld. ¹ | Halifax, N.S. | Saint John, N.B. | Mont- real, Que. | Ottawa, Ont. | Tor- onto, Ont. | Winni- peg, Man. | Saska- toon- Regina, Sask. | Ed- monton- Calgary, Alta. | Van- couver, B.C. |
|----------------|--------------------------------------|------------------|------------------------|------------------------|-----------------|-----------------------|------------------------|-------------------------------------|-------------------------------------|-------------------------|
| 1950..... | .. | 102.1 | 103.3 | 103.7 | 103.1 | 104.1 | 103.8 | 102.2 | 103.9 | 103.6 |
| 1951..... | .. | 112.1 | 114.1 | 116.1 | 115.3 | 115.4 | 114.6 | 111.7 | 113.5 | 114.3 |
| 1952..... | 103.5 | 115.3 | 117.4 | 117.6 | 116.8 | 117.5 | 116.1 | 112.8 | 114.8 | 117.4 |
| 1953..... | 102.2 | 113.2 | 115.3 | 116.3 | 115.0 | 116.8 | 114.4 | 113.1 | 114.0 | 116.1 |
| 1954..... | 102.8 | 114.1 | 116.6 | 116.8 | 116.2 | 118.3 | 115.3 | 114.2 | 114.9 | 117.4 |
| 1955..... | 104.2 | 114.8 | 117.7 | 116.9 | 117.2 | 118.8 | 115.9 | 114.6 | 114.6 | 117.9 |
| 1956..... | 106.8 | 116.1 | 118.8 | 118.4 | 119.2 | 120.6 | 117.2 | 115.8 | 115.7 | 119.6 |
| 1957..... | 109.4 | 119.8 | 122.6 | 121.8 | 123.2 | 125.2 | 120.0 | 119.1 | 118.8 | 122.6 |
| 1956 | | | | | | | | | | |
| January..... | 104.7 | 114.5 | 117.4 | 117.4 | 117.5 | 118.8 | 116.8 | 115.2 | 114.8 | 120.0 |
| February..... | 104.9 | 114.1 | 117.1 | 117.0 | 117.3 | 118.3 | 116.5 | 114.7 | 114.1 | 118.5 |
| March..... | 105.0 | 114.3 | 117.4 | 116.7 | 117.3 | 118.2 | 116.8 | 114.7 | 114.3 | 118.6 |
| April..... | 105.9 | 114.8 | 117.6 | 116.7 | 117.7 | 118.7 | 116.5 | 114.9 | 114.6 | 118.6 |
| May..... | 106.6 | 114.7 | 117.5 | 116.6 | 117.7 | 119.1 | 116.1 | 114.6 | 114.3 | 117.7 |
| June..... | 107.6 | 115.6 | 118.2 | 118.1 | 118.8 | 120.4 | 116.6 | 115.2 | 114.9 | 118.4 |
| July..... | 108.1 | 116.0 | 118.7 | 119.1 | 119.4 | 121.5 | 117.6 | 115.6 | 115.7 | 119.3 |
| August..... | 110.2 | 117.6 | 120.3 | 118.9 | 120.4 | 122.0 | 117.0 | 116.2 | 116.1 | 119.6 |
| September..... | 107.3 | 117.2 | 119.6 | 118.8 | 120.0 | 121.7 | 117.5 | 116.8 | 116.8 | 120.5 |
| October..... | 106.9 | 117.7 | 120.0 | 119.9 | 120.9 | 122.5 | 118.1 | 117.2 | 117.5 | 121.2 |
| November..... | 107.0 | 118.0 | 120.4 | 120.9 | 121.5 | 123.1 | 118.4 | 117.2 | 117.7 | 121.5 |
| December..... | 107.5 | 118.5 | 121.1 | 120.7 | 121.6 | 123.1 | 118.4 | 117.1 | 117.4 | 121.7 |
| 1957 | | | | | | | | | | |
| January..... | 107.7 | 118.6 | 121.2 | 120.6 | 121.4 | 123.1 | 118.8 | 117.1 | 117.2 | 122.1 |
| February..... | 108.5 | 118.8 | 122.1 | 120.5 | 121.6 | 123.4 | 118.7 | 117.6 | 117.4 | 122.5 |
| March..... | 108.8 | 118.7 | 122.1 | 120.3 | 121.6 | 123.5 | 118.4 | 117.8 | 117.4 | 122.4 |
| April..... | 108.7 | 119.4 | 122.1 | 120.5 | 122.4 | 124.2 | 119.2 | 117.9 | 117.7 | 122.2 |
| May..... | 109.3 | 119.1 | 121.9 | 120.7 | 122.8 | 125.0 | 119.2 | 117.9 | 118.1 | 122.0 |
| June..... | 109.5 | 119.1 | 122.0 | 121.5 | 123.2 | 125.2 | 119.6 | 118.8 | 118.4 | 121.5 |
| July..... | 109.6 | 119.3 | 122.4 | 122.0 | 123.4 | 125.5 | 120.0 | 119.3 | 119.1 | 121.7 |
| August..... | 110.5 | 120.6 | 123.3 | 122.2 | 124.0 | 125.9 | 120.7 | 120.2 | 119.8 | 122.5 |
| September..... | 110.2 | 120.9 | 123.5 | 122.8 | 124.7 | 126.8 | 121.2 | 121.1 | 120.5 | 123.5 |
| October..... | 109.9 | 120.6 | 123.3 | 123.3 | 125.0 | 126.7 | 120.9 | 121.0 | 120.6 | 123.8 |
| November..... | 109.8 | 121.2 | 123.4 | 123.8 | 124.4 | 126.4 | 121.2 | 120.2 | 119.9 | 123.6 |
| December..... | 109.8 | 121.1 | 123.4 | 123.4 | 124.2 | 126.1 | 121.6 | 120.1 | 120.0 | 123.9 |

¹ Explanation of methods used in compiling St. John's, Nfld., index (June 1951=100) is given in DBS Reference Paper No. 28.

World Retail Price Indexes.—In order to place changes in Canadian retail prices in perspective with those occurring elsewhere, Table 8 provides retail price indexes for selected countries for 1955 and 1956. These indexes measure price change only within each country and should not be used to compare actual levels of living costs from country to country.

8.—Index Numbers of Retail Prices in Canada and other Countries 1955 and 1956

(BASE: 1953=100. SOURCE: *United Nations Monthly Bulletin of Statistics*, November 1957.)

| Country | 1955 | 1956 | Country | 1955 | 1956 |
|-------------------------|------------|------------|---------------------|------|------|
| Belgium..... | 101 | 104 | Iran..... | 122 | 130 |
| Brazil..... | 142 | 173 | Israel..... | 119 | 127 |
| Canada..... | 101 | 102 | Korea, South..... | 229 | 285 |
| Chile..... | 302 | 471 | Netherlands..... | 106 | 108 |
| Denmark..... | 106 | 111 | New Zealand..... | 107 | 111 |
| Dominican Republic..... | 98 | 99 | Norway..... | 105 | 109 |
| Egypt..... | 96 | 98 | Sweden..... | 104 | 109 |
| France (Paris)..... | 101 | 103 | Switzerland..... | 102 | 103 |
| Germany (Western)..... | 102 | 105 | Turkey..... | 119 | 136 |
| Greece..... | 122 | 126 | United Kingdom..... | 106 | 112 |
| India..... | 90 | 99 | United States..... | 100 | 102 |

Section 3.—Index Numbers of Security Prices

Investors price indexes for common stocks are calculated on the 1935-39 base and published weekly and monthly for a sample of issues, broadly classified under the headings: industrials, public utilities and banks. Within the first category the sample is further classified by industries for which indexes are available. Monthly indexes of mining stocks including both golds and base metals are calculated and published separately, as are indexes of preferred stocks.

For purposes of index calculation,[†] Thursday closing prices are used for the issues of companies listed on either or both the Montreal and Toronto stock exchanges. Weights are applied to each issue on the basis of the number of shares currently outstanding. The list of stocks included in the various security series, currently totalling 95 for the investors index and 27 for mining stocks index, are revised annually so that issues which have become important in stock market activity may be included and those of declining interest removed. Provision is also made for stock splits, mergers and the exercise of 'rights'. The indexes are designed to reflect weekly and monthly changes of interest to the investor, rather than day-to-day changes of more speculative interest. For that reason the historical record of indexes dating back to January 1914 on a monthly basis* is of significance in any analysis of the degree of fluctuation in stock prices through time.

Investors Index.—A continuation of the strong upward trend inaugurated with the inception of the bull market in December 1953 culminated in an all-time peak in the investors total index of 291.8 in August 1956; the September 1929 peak was 197.8. Subsequent sharp declines, which brought the level to 262.3 by November 1956 were reversed in December and by May 1957 losses had been largely recouped. Prices broke sharply in mid-summer, however, and by December the composite index had reacted to 216.2 for a net loss of 19.3 p.c. over the year. Among major groups, industrials moved to a postwar peak of 308.9 by August 1956, but by December 1957 stood at 224.0. Utilities reached a peak of 216.8 in June 1957 and then dropped to 173.9. Banks, pursuing a similar course to industrials, moved to 295.4 in August 1956 and back to 234.9 by December 1957. Sub-groups registering greatest losses in 1957 were industrial mines, transportation, machinery and equipment and oils. One group, foods and allied products, moved higher.

* Available on request from Prices Division, Dominion Bureau of Statistics.

Investors Index Numbers of Common Stocks by Month 1956 and 1957

(1935-39 = 100)

| Year and Month | Industrials | | | | | | | Public Utilities | | | | Banks, Total | In- vestors Com- posite Index | | | |
|----------------|---|----------------------|---------|-------|---------------------------------------|--|----------------|---------------------------------|--------------------------|--------------------------|--------------------------|-----------------|---|----------------|------------------------|--------------------------|
| | Mach- inery and Equip- ment | Pulp and Paper | Milling | Oils | Tex- tiles and Cloth- ing | Food and Allied Prod- ucts | Bever- ages | Build- ing Ma- terials | Indus- trial Mines | Indus- trial Total | Trans- por- tation | | | Tele- phone | Power Trac- tion | Utili- ties, Total |
| 1956 | | | | | | | | | | | | | | | | |
| January..... | 735.6 | 1,070.0 | 209.4 | 175.5 | 179.9 | 196.8 | 583.7 | 458.4 | 205.3 | 257.0 | 385.4 | 129.4 | 192.6 | 206.5 | 260.0 | 248.5 |
| February..... | 728.0 | 1,077.3 | 199.2 | 182.6 | 174.0 | 197.3 | 579.0 | 461.0 | 200.6 | 238.1 | 373.3 | 129.5 | 190.6 | 204.1 | 264.2 | 249.2 |
| March..... | 804.6 | 1,153.0 | 199.6 | 205.2 | 178.8 | 199.7 | 590.4 | 503.6 | 217.0 | 280.3 | 399.3 | 131.0 | 194.3 | 210.2 | 276.8 | 267.9 |
| April..... | 826.4 | 1,223.9 | 187.4 | 210.0 | 170.9 | 191.8 | 577.5 | 519.5 | 222.1 | 286.2 | 394.8 | 127.7 | 200.2 | 209.3 | 288.7 | 273.0 |
| May..... | 848.4 | 1,192.5 | 179.8 | 211.7 | 160.2 | 180.8 | 581.7 | 488.5 | 218.0 | 289.9 | 370.2 | 125.2 | 201.0 | 204.2 | 271.7 | 268.5 |
| June..... | 843.6 | 1,146.0 | 167.3 | 219.4 | 158.8 | 181.5 | 549.1 | 466.3 | 217.2 | 283.0 | 356.8 | 119.2 | 206.0 | 199.8 | 260.7 | 267.0 |
| July..... | 913.7 | 1,185.8 | 173.9 | 234.9 | 159.5 | 190.8 | 565.4 | 504.5 | 223.5 | 308.9 | 361.7 | 122.2 | 222.4 | 207.9 | 287.4 | 282.4 |
| August..... | 915.4 | 1,175.3 | 173.2 | 250.1 | 158.3 | 195.6 | 558.6 | 514.2 | 237.3 | 298.9 | 389.1 | 124.0 | 228.0 | 215.7 | 295.4 | 291.8 |
| September..... | 855.3 | 1,071.2 | 166.0 | 243.7 | 153.4 | 183.5 | 530.9 | 483.9 | 228.2 | 294.4 | 380.0 | 121.1 | 220.1 | 209.2 | 283.8 | 278.9 |
| October..... | 815.7 | 1,024.9 | 160.2 | 236.2 | 155.3 | 175.0 | 518.7 | 469.8 | 223.4 | 284.8 | 370.9 | 119.5 | 215.0 | 205.1 | 275.3 | 270.3 |
| November..... | 762.8 | 994.2 | 151.2 | 239.2 | 154.8 | 175.2 | 487.1 | 452.0 | 211.9 | 276.0 | 351.5 | 117.8 | 212.5 | 200.3 | 268.8 | 262.3 |
| December..... | 776.8 | 998.9 | 143.6 | 244.8 | 152.4 | 176.5 | 493.0 | 459.6 | 219.0 | 281.7 | 367.1 | 118.3 | 214.4 | 203.6 | 276.2 | 267.8 |
| 1957 | | | | | | | | | | | | | | | | |
| January..... | 763.0 | 1,005.3 | 147.8 | 251.6 | 163.7 | 181.2 | 506.3 | 463.2 | 228.4 | 287.3 | 363.5 | 118.4 | 227.9 | 207.5 | 289.9 | 273.7 |
| February..... | 756.6 | 946.4 | 141.4 | 244.8 | 154.7 | 181.4 | 488.8 | 433.4 | 211.8 | 276.0 | 343.2 | 116.5 | 228.9 | 203.6 | 271.3 | 263.2 |
| March..... | 790.4 | 966.4 | 134.8 | 246.2 | 153.5 | 182.8 | 485.9 | 438.0 | 218.2 | 281.0 | 364.2 | 115.7 | 239.0 | 209.2 | 266.2 | 267.5 |
| April..... | 825.6 | 997.0 | 138.2 | 262.9 | 153.4 | 197.6 | 480.9 | 453.5 | 225.5 | 294.2 | 385.8 | 114.0 | 243.6 | 212.5 | 277.5 | 278.8 |
| May..... | 868.0 | 996.4 | 155.0 | 278.8 | 157.2 | 204.7 | 516.0 | 470.9 | 223.9 | 304.8 | 397.2 | 113.1 | 251.9 | 216.1 | 279.0 | 286.9 |
| June..... | 882.7 | 998.9 | 141.9 | 275.6 | 161.8 | 208.2 | 514.6 | 482.4 | 217.6 | 303.5 | 401.0 | 107.6 | 264.6 | 216.8 | 281.8 | 286.9 |
| July..... | 932.2 | 991.9 | 137.5 | 274.2 | 162.5 | 204.5 | 506.2 | 483.4 | 204.3 | 301.6 | 398.0 | 105.2 | 262.0 | 213.8 | 277.8 | 284.7 |
| August..... | 803.9 | 915.9 | 135.8 | 245.9 | 160.3 | 195.8 | 485.9 | 458.3 | 182.4 | 273.4 | 364.5 | 104.1 | 237.8 | 200.6 | 260.2 | 259.0 |
| September..... | 728.5 | 861.3 | 126.4 | 225.5 | 155.1 | 189.6 | 466.9 | 424.0 | 172.1 | 252.8 | 343.0 | 103.4 | 219.4 | 191.2 | 242.2 | 242.2 |
| October..... | 641.7 | 813.4 | 118.7 | 195.7 | 145.8 | 183.8 | 459.7 | 384.0 | 156.7 | 228.0 | 306.9 | 100.5 | 195.9 | 176.7 | 234.9 | 219.6 |
| November..... | 600.3 | 792.7 | 122.4 | 195.6 | 144.0 | 188.8 | 475.1 | 377.6 | 159.3 | 226.2 | 284.3 | 102.0 | 201.3 | 176.2 | 240.5 | 218.6 |
| December..... | 587.9 | 808.1 | 120.8 | 194.9 | 151.4 | 198.7 | 482.6 | 373.4 | 151.0 | 224.0 | 272.5 | 102.4 | 198.4 | 173.9 | 234.9 | 216.2 |

Mining Stocks.—Mining stocks, paralleling industrials and utilities, recorded major declines during 1957 as the composite index fell 30.9 p.c. from 129.4 in December 1956 to 89.4 in December 1957. A substantial change in base metal shares, where a drop of 41.4 p.c. from 267.8 to 156.8 was recorded, was chiefly responsible. Golds declined a relatively modest 12.9 p.c. from 68.9 to 60.0.

10.—Weighted Index Numbers of Prices of Mining Stocks by Month 1954-57

(1935-39=100)

| Year and Month | Gold | Base Metals | Total | Year and Month | Gold | Base Metals | Total |
|----------------|------|-------------|-------|----------------|------|-------------|-------|
| 1954 | | | | 1956 | | | |
| January..... | 60.3 | 131.2 | 81.9 | January..... | 75.8 | 238.1 | 125.2 |
| February..... | 62.1 | 132.0 | 83.4 | February..... | 76.7 | 235.8 | 125.1 |
| March..... | 61.5 | 136.5 | 84.3 | March..... | 79.4 | 260.2 | 134.4 |
| April..... | 64.8 | 145.5 | 89.3 | April..... | 78.8 | 269.7 | 136.8 |
| May..... | 64.4 | 146.5 | 89.4 | May..... | 78.8 | 268.5 | 136.5 |
| June..... | 63.9 | 149.7 | 90.0 | June..... | 76.7 | 273.1 | 136.4 |
| July..... | 64.9 | 154.0 | 92.0 | July..... | 79.5 | 291.5 | 144.0 |
| August..... | 67.8 | 159.2 | 95.6 | August..... | 79.5 | 301.9 | 147.1 |
| September..... | 68.3 | 160.8 | 96.4 | September..... | 74.1 | 282.2 | 137.4 |
| October..... | 66.2 | 161.0 | 95.0 | October..... | 72.5 | 273.3 | 133.5 |
| November..... | 65.6 | 168.7 | 97.0 | November..... | 68.6 | 262.2 | 127.4 |
| December..... | 67.6 | 177.2 | 100.9 | December..... | 68.9 | 267.8 | 129.4 |
| 1955 | | | | 1957 | | | |
| January..... | 68.3 | 181.3 | 102.7 | January..... | 70.6 | 265.7 | 129.9 |
| February..... | 69.3 | 191.3 | 106.4 | February..... | 69.3 | 243.2 | 122.2 |
| March..... | 69.0 | 189.6 | 105.7 | March..... | 68.1 | 249.6 | 123.3 |
| April..... | 71.1 | 199.8 | 110.2 | April..... | 72.4 | 255.4 | 128.0 |
| May..... | 72.8 | 209.0 | 114.2 | May..... | 76.2 | 234.2 | 124.2 |
| June..... | 75.9 | 226.0 | 121.5 | June..... | 80.6 | 227.7 | 125.4 |
| July..... | 75.0 | 241.8 | 125.7 | July..... | 79.3 | 232.2 | 122.8 |
| August..... | 76.3 | 250.0 | 129.1 | August..... | 73.2 | 192.6 | 109.5 |
| September..... | 75.3 | 252.0 | 129.0 | September..... | 71.4 | 180.7 | 104.6 |
| October..... | 71.0 | 224.2 | 117.6 | October..... | 63.4 | 167.2 | 95.0 |
| November..... | 71.2 | 230.2 | 119.6 | November..... | 61.2 | 167.0 | 93.4 |
| December..... | 72.6 | 233.0 | 121.4 | December..... | 60.0 | 156.8 | 89.4 |

Preferred Stocks.—Further weakness in 1957 lowered the index for a representative list of preferred stocks from 154.4 in December 1956 to 151.1 in December 1957.

11.—Index Numbers of Preferred Stocks by Month 1948-57

(1935-39=100)

NOTE.—Figures for 1927-45 are given in the 1948-49 Year Book, p. 958, and for 1946 and 1947 in the 1956 edition, p. 1045.

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1948..... | 144.5 | 141.0 | 138.9 | 144.2 | 147.0 | 148.2 | 147.5 | 146.4 | 144.8 | 143.7 | 144.6 | 144.6 |
| 1949..... | 144.7 | 144.0 | 142.8 | 140.9 | 139.9 | 136.3 | 138.6 | 140.4 | 141.8 | 145.8 | 150.0 | 150.7 |
| 1950..... | 152.4 | 153.0 | 153.7 | 154.4 | 157.3 | 158.2 | 154.6 | 155.6 | 158.2 | 161.1 | 161.1 | 160.2 |
| 1951..... | 166.0 | 169.3 | 166.0 | 165.2 | 164.3 | 162.2 | 163.1 | 165.2 | 166.4 | 164.2 | 162.8 | 159.5 |
| 1952..... | 161.4 | 160.6 | 159.5 | 157.2 | 157.2 | 157.7 | 159.8 | 163.6 | 162.4 | 161.2 | 160.3 | 160.7 |
| 1953..... | 161.0 | 161.6 | 163.6 | 161.6 | 162.9 | 163.0 | 163.8 | 164.3 | 162.0 | 161.0 | 161.6 | 161.7 |
| 1954..... | 162.6 | 163.6 | 165.4 | 168.0 | 169.7 | 170.7 | 171.3 | 173.0 | 173.4 | 174.1 | 175.4 | 175.4 |
| 1955..... | 175.6 | 176.0 | 176.2 | 175.4 | 176.1 | 177.9 | 179.5 | 179.9 | 179.0 | 179.2 | 176.6 | 173.9 |
| 1956..... | 175.5 | 175.3 | 173.6 | 171.1 | 167.7 | 166.2 | 167.5 | 166.1 | 161.7 | 158.7 | 157.0 | 154.4 |
| 1957..... | 155.9 | 156.4 | 154.8 | 153.4 | 153.1 | 150.8 | 150.0 | 149.4 | 147.3 | 146.1 | 147.6 | 151.1 |

CHAPTER XXIV.—PUBLIC FINANCE*

CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

Section 1.—Combined Statistics of Public Finance for All Governments

Combined statistics of public finance for all governments in Canada—federal, provincial and municipal—are presented in this Section. Additional information is provided for each level of government in Sections 2, 3 and 4.

Combined Revenue and Expenditure.—Tables 1 and 2 give details of the federal, provincial and municipal net combined revenue by sources and net combined current and capital expenditure by services, respectively, for 1954 and 1955. This net basis has been prepared by deducting from revenue, and the appropriate expenditure, certain specified amounts such as grants-in-aid and shared-cost contributions from other governments, institutional revenue, certain other sales of commodities and services, and interest, premium, discount and exchange revenue. Amounts provided for debt retirement are excluded to avoid duplication since all expenditure resulting from capital borrowings is included.

Inter-governmental transfers such as subsidy payments by the Federal Government to the provincial governments are unconditional grants and therefore cannot be offset against any specific expenditure. These are set out separately in Tables 1 and 2 in order to prevent duplication and to provide additive totals. Because of the differing accounting practices of governments and variations in fiscal year-ends, discrepancies appear between the amounts recorded as inter-governmental transfers in the two tables.

Tables 3 and 4 show combined revenue of all governments and combined expenditure of all governments, respectively, for the years 1951-55, both exclusive of inter-governmental transfers. Figures for Yukon Territory and the Northwest Territories are not included.

*Revised in the Public Finance and Transportation Division, Dominion Bureau of Statistics.

1.—Combined Revenue of All Governments 1954 and 1955

NOTE.—Figures are for the fiscal years ended nearest Dec. 31.

| Item | 1954 | | | | 1955 | | | |
|--|------------------|------------------|----------------------|------------------|------------------|------------------|----------------------|------------------|
| | Federal | Pro- vincial | Muni- cipal | Total | Federal | Pro- vincial | Muni- cipal | Total |
| | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Taxes— | | | | | | | | |
| Corporation..... | 1,035,117 | 65,293 | — | 1,100,410 | 1,043,219 | 73,551 | — | 1,116,770 |
| Customs duties and import..... | 398,177 | — | — | 398,177 | 482,520 | — | — | 482,520 |
| Gasoline..... | — | 235,757 | — | 235,757 | — | 264,201 | — | 264,201 |
| General sales..... | 572,215 | 128,589 | 37,293 | 738,097 | 641,510 | 149,444 | 43,299 | 834,253 |
| Income—persons..... | 1,183,448 | 25,225 | — | 1,208,673 | 1,185,600 | 30,208 | — | 1,215,808 |
| Liquor ¹ | 128,725 | 158,200 | — | 286,925 | 143,996 | 171,695 | — | 315,691 |
| Succession duties..... | 44,768 | 40,664 | — | 85,432 | 66,607 | 72,046 | — | 138,653 |
| Real and personal property..... | — | 6,020 | 627,325 ² | 633,345 | — | 6,147 | 683,254 ² | 689,401 |
| Tobacco..... | 213,740 | 13,667 | — | 227,407 | 234,322 | 15,022 | — | 249,344 |
| Withholding..... | 61,264 | — | — | 61,264 | 66,176 | — | — | 66,176 |
| Other..... | 135,984 | 45,249 | 80,658 | 261,891 | 131,772 | 47,416 | 90,108 | 269,296 |
| Totals, Taxes..... | 3,773,438 | 718,664 | 745,276 | 5,237,378 | 3,995,722 | 829,730 | 816,661 | 5,642,113 |
| Licences, Permits and Fees— | | | | | | | | |
| Motor vehicle..... | 341 | 94,727 | — | 95,068 | 382 | 114,629 | — | 115,011 |
| Other..... | 6,781 | 3 | 21,639 | 28,420 | 6,589 | 3 | 23,264 | 29,853 |
| Totals, Licences, Permits and Fees..... | 7,122 | 94,727 | 21,639 | 123,488 | 6,971 | 114,629 | 23,264 | 144,864 |
| Public domain..... | 2,416 | 193,252 | — | 195,668 | 2,401 | 264,518 | — | 266,919 |
| Public utility contributions to municipalities..... | — | — | 37,880 | 37,880 | — | — | 40,276 | 40,276 |
| Post Office (net)..... | 7,732 | — | — | 7,732 | 10,253 | — | — | 10,253 |
| Bank of Canada profits..... | 41,412 | — | — | 41,412 | 38,341 | — | — | 38,341 |
| Bullion and coinage..... | 1,836 | — | — | 1,836 | 3,247 | — | — | 3,247 |
| Miscellaneous revenue..... | 43,738 | 48,853 | 62,911 | 155,502 | 44,623 | 53,909 | 68,991 | 167,523 |
| Totals, Revenue (excluding Inter-governmental Transfers)..... | 3,877,694 | 1,055,496 | 867,706 | 5,800,896 | 4,101,558 | 1,262,786 | 949,192 | 6,313,536 |
| Inter-governmental Transfers— | | | | | | | | |
| Federal subsidies to provinces... | — | 20,293 | — | 20,293 | — | 20,210 | — | 20,210 |
| Subsidies to municipalities..... | — | — | 40,548 ⁴ | 40,548 | — | — | 42,084 ⁴ | 42,084 |
| Transitional grant to Newfoundland..... | — | 3,950 | — | 3,950 | — | 3,100 | — | 3,100 |
| Dominion - Provincial Taxation Agreements..... | — | 327,080 | — | 327,080 | — | 319,930 | — | 319,930 |
| Share of income tax on electric power utilities..... | — | 7,294 | — | 7,294 | — | 7,948 | — | 7,948 |
| Nova Scotia highway tax..... | — | 240 | — | 240 | — | 240 | — | 240 |
| Interest on Common School Fund..... | — | 134 | — | 134 | — | 134 | — | 134 |
| Totals, Inter-governmental Transfers..... | — | 358,991 | 40,548 | 399,539 | — | 351,562 | 42,084 | 393,646 |
| Grand Totals..... | 3,877,694 | 1,414,487 | 908,254 | 6,200,435 | 4,101,558 | 1,614,348 | 991,276 | 6,707,182 |

¹ Includes provincial income from liquor control. ² Excludes personal property which is not separable from other taxes. ³ Included in miscellaneous revenue. ⁴ Includes federal grants to municipalities in lieu of taxes on federal properties which are not segregated from provincial subsidies to municipalities.

2.—Combined Expenditure of All Governments 1954 and 1955

NOTE.—Figures are for the fiscal years ended nearest Dec. 31.

| Item | 1954 | | | | 1955 | | | |
|--|---------------------|------------------|------------------|------------------|---------------------|------------------|------------------|------------------|
| | Federal | Pro- vincial | Muni- cipal | Total | Federal | Pro- vincial | Muni- cipal | Total |
| | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Public Welfare— | | | | | | | | |
| Health and hospital care..... | 36,786 | 239,017 | 57,896 | 333,699 | 38,973 | 252,386 | 54,788 | 346,147 |
| Labour and unemployment insur- ance..... | 62,137 | 6,190 | — | 68,327 | 62,571 | 6,640 | — | 69,211 |
| Relief..... | — | 15,245 | 7,188 | 22,433 | — | 15,309 | 8,163 | 23,472 |
| Old age pensions..... | 66,805 ¹ | 32,813 | — | 99,618 | 84,263 ¹ | 33,588 | — | 117,851 |
| Family allowances..... | 368,986 | — | — | 368,986 | 385,068 | — | — | 385,068 |
| Other..... | 27,608 | 65,652 | 114,155 | 207,415 | 34,439 | 73,868 | 117,444 | 225,751 |
| Totals, Public Welfare..... | 562,322 | 358,917 | 179,239 | 1,100,478 | 605,314 | 381,791 | 180,395 | 1,167,500 |
| Education..... | 22,397 | 269,575 | 403,749 | 695,721 | 24,961 | 329,921 | 434,044 | 788,926 |
| Transportation..... | 237,070 | 372,144 | 168,040 | 777,254 | 214,270 | 458,082 | 184,123 | 856,475 |
| Agriculture..... | 85,910 | 33,847 | — | 119,757 | 92,614 | 35,661 | — | 128,275 |
| Public domain..... | 71,531 | 74,708 | — | 146,239 | 69,900 | 86,886 | — | 156,786 |
| National defence..... | 1,647,594 | — | — | 1,647,594 | 1,700,745 | — | — | 1,700,745 |
| Veterans pensions and aftercare.... | 221,828 | — | — | 221,828 | 230,617 | — | — | 230,617 |
| Expansion of industry..... | ² | — | — | — | ² | — | — | — |
| Debt charges, net (excluding retire- ments)..... | 425,690 | 53,033 | 55,285 | 534,008 | 413,740 | 52,076 | 62,028 | 527,844 |
| Other expenditure..... | 387,326 | 170,971 | 317,831 | 876,128 | 421,046 | 191,480 | 296,916 | 909,442 |
| Totals, Expenditure (exclud- ing Inter - governmental Transfers)..... | 3,661,668 | 1,333,195 | 1,124,144 | 6,119,007 | 3,773,207 | 1,535,897 | 1,157,506 | 6,466,610 |
| Inter-governmental Transfers— | | | | | | | | |
| Federal subsidies to provinces... | 20,354 | — | — | 20,354 | 20,272 | — | — | 20,272 |
| Transitional grant to Newfound- land..... | 3,950 | — | — | 3,950 | 3,100 | — | — | 3,100 |
| Provincial subsidies to municipi- ties..... | — | 36,487 | — | 36,487 | — | 36,023 | — | 36,023 |
| Dominion - Provincial Taxation Agreements..... | 327,445 | — | — | 327,445 | 319,624 | — | — | 319,624 |
| Share of income tax on electric power utilities..... | 7,294 | — | — | 7,294 | 7,948 | — | — | 7,948 |
| Nova Scotia highway tax..... | — | — | 246 | 246 | — | — | 246 | 246 |
| Interest on Common School Fund | 134 | — | — | 134 | 134 | — | — | 134 |
| Grants to municipalities in lieu of taxes on federal properties..... | 3,358 | — | — | 3,358 | 7,190 | — | — | 7,190 |
| Totals, Inter-governmental Transfers..... | 362,535 | 36,487 | 246 | 399,268 | 358,268 | 36,023 | 246 | 394,537 |
| Grand Totals..... | 4,024,203 | 1,369,682 | 1,124,390 | 6,518,275 | 4,131,475 | 1,571,920 | 1,157,752 | 6,861,147 |

¹ Includes payments to Old Age Security Fund of \$45,838,000 in 1954 and \$63,252,000 in 1955.
of expenditure exceeded expenditure; excess included in Table 1 under "Miscellaneous revenue".² Refunds

3.—Combined Revenue of All Governments exclusive of Inter-governmental Transfers 1951-55

NOTE.—Figures are for the fiscal years ended nearest Dec. 31.

| Item | 1951 | 1952 | 1953 | 1954 | 1955 |
|--|------------------|------------------|------------------|------------------|------------------|
| | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Taxes— | | | | | |
| Corporation..... | 1,332,410 | 1,376,690 | 1,317,849 | 1,100,410 | 1,116,770 |
| Customs import duties..... | 347,208 | 390,121 | 407,998 | 398,177 | 482,520 |
| Gasoline..... | 178,461 | 196,907 | 219,762 | 235,757 | 264,201 |
| General sales..... | 691,953 | 694,485 | 727,821 | 738,097 | 834,253 |
| Income—persons..... | 976,953 | 1,180,039 | 1,187,669 | 1,208,673 | 1,215,808 |
| Liquor ¹ | 264,102 | 284,312 | 289,390 | 286,925 | 315,691 |
| Succession duties..... | 72,398 | 70,797 | 70,272 | 85,432 | 138,653 |
| Real and personal property ² | 475,040 | 542,751 | 586,689 | 633,345 | 689,401 |
| Tobacco..... | 216,774 | 230,480 | 223,659 | 227,407 | 249,344 |
| Withholding..... | 55,017 | 53,674 | 53,761 | 61,264 | 66,176 |
| Other..... | 319,929 | 299,247 | 314,273 | 261,891 | 269,296 |
| Totals, Taxes..... | 4,930,245 | 5,319,503 | 5,399,143 | 5,237,378 | 5,642,113 |
| Licences, Permits and Fees— | | | | | |
| Motor vehicle..... | 72,970 | 81,632 | 88,993 | 95,068 | 115,011 |
| Other..... | 43,206 | 24,781 | 27,185 | 28,420 | 29,853 |
| Totals, Licences, Permits and Fees..... | 116,176 | 106,413 | 116,178 | 123,488 | 144,864 |
| Public domain..... | 134,343 | 164,673 | 204,328 | 195,668 | 266,919 |
| Public utility contributions to municipalities..... | 29,323 | 33,093 | 36,009 | 37,890 | 40,276 |
| Post Office (net)..... | 6,695 | 6,601 | * | 7,732 | 10,253 |
| Bank of Canada profits..... | 24,018 | 28,792 | 43,868 | 41,412 | 38,341 |
| Bullion and coinage..... | 4,838 | 4,886 | 4,241 | 1,836 | 3,247 |
| Miscellaneous revenue..... | 89,929 | 122,480 | 135,691 | 155,502 | 167,523 |
| Totals, Revenue (excluding Inter-governmental Transfers)..... | 5,335,567 | 5,785,841 | 5,939,458 | 5,800,896 | 6,313,536 |

¹ Includes provincial income from liquor control.

² Excludes personal property for municipal govern-

ments which is inseparable from other taxes.

* Expenditure exceeds revenue.

4.—Combined Expenditure of All Governments exclusive of Inter-governmental Transfers 1951-55

NOTE.—Figures are for the fiscal years ended nearest Dec. 31.

| Item | 1951 | 1952 | 1953 | 1954 | 1955 |
|--|------------------|------------------|------------------|------------------|------------------|
| | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Public Welfare— | | | | | |
| Health and hospital care..... | 240,765 | 274,226 | 297,848 | 333,699 | 346,147 |
| Labour and unemployment insurance..... | 61,343 | 63,735 | 66,063 | 68,327 | 69,211 |
| Relief..... | 19,651 | 17,139 | 18,346 | 22,433 | 23,472 |
| Old age pensions..... | 168,106 | 46,679 | 49,120 | 99,618 | 117,851 |
| Family allowances..... | 322,317 | 336,496 | 352,514 | 368,986 | 385,068 |
| Other..... | 137,863 | 156,878 | 182,513 | 207,415 | 225,751 |
| Totals, Public Welfare..... | 950,045 | 895,153 | 966,404 | 1,100,478 | 1,167,500 |
| Education..... | 483,669 | 570,212 | 615,863 | 695,721 | 788,926 |
| Transportation..... | 572,890 | 669,071 | 713,181 | 777,254 | 856,475 |
| Agriculture..... | 96,243 | 136,715 | 145,018 | 119,757 | 128,275 |
| Public domain..... | 112,086 | 123,730 | 137,361 | 146,239 | 156,786 |
| National defence..... | 1,400,709 | 1,864,532 | 1,792,043 | 1,647,594 | 1,700,745 |
| Veterans pensions and aftercare..... | 198,230 | 221,966 | 220,344 | 221,828 | 230,617 |
| Debt charges, net (excluding retirements)..... | 518,845 | 482,734 | 498,625 | 534,008 | 527,844 |
| Other expenditure..... | 763,396 | 789,469 | 818,986 | 876,128 | 909,442 |
| Totals, Expenditure (excluding Inter-governmental Transfers)..... | 5,096,113 | 5,753,583 | 5,907,825 | 6,119,007 | 6,466,610 |

5.—Consolidated Debt of All Governments 1954 and 1955

NOTE.—Certain items in this table are not strictly comparable with corresponding items in similar tables of previous Year Books: see text p. 1091.

| Item | 1954 | | | | | | 1955 | | | | | |
|---|------------------------|-------------------|------------------|-------------------|---|--|------------------------|-------------------|------------------|-------------------|---|--|
| | Federal | Prov- vinctial | Muni- cipal | Total | Deduct Inter- govern- mental Debt | Consoli- dated Govern- mental Debt | Federal | Prov- vinctial | Muni- cipal | Total | Deduct Inter- govern- mental Debt | Consoli- dated Govern- mental Debt |
| | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Direct Debt— | | | | | | | | | | | | |
| Funded debt ¹ | 12,906,442 | 2,628,902 | 2,112,702 | 17,648,046 | 161,179 | 17,486,867 | 13,307,570 | 2,714,427 | 2,408,427 | 18,430,424 | 188,887 | 18,241,537 |
| Less Sinking funds..... | 190,890 | 428,734 | 38,995 | 708,579 | — | 708,579 | 210,847 | 470,456 | 92,920 | 774,223 | — | 774,223 |
| Net funded debt..... | 12,715,552 | 2,200,168 | 2,023,747 | 16,939,467 | 161,179 | 16,778,288 | 13,096,723 | 2,243,971 | 2,315,507 | 17,656,201 | 188,887 | 17,467,314 |
| Treasury bills ² | 1,500,000 ³ | 4,850 | — | 1,504,850 | — | 1,504,850 | 2,100,000 ³ | 14,446 | — | 2,114,446 | — | 2,114,446 |
| Savings deposits..... | 36,781 | 2,205 | — | 38,986 | — | 38,986 | 36,164 | 2,068 | — | 38,232 | — | 38,232 |
| Temporary loans..... | — | 30,236 | 115,500 | 145,826 | — | 145,826 | — | 17,578 | 127,731 | 145,309 | — | 145,309 |
| Other direct liabilities..... | 3,086,529 | 218,691 | 200,326 | 3,505,546 | 35,391 | 3,470,155 | 3,323,427 | 240,666 | 203,335 | 3,768,028 | 38,246 | 3,729,782 |
| Totals, Direct Debt (less Sinking Funds)..... | 17,428,862 | 2,456,150 | 2,339,663 | 22,224,675 | 196,570 | 22,028,105 | 18,556,314 | 2,518,729 | 2,647,173 | 23,722,216 | 227,133 | 23,495,083 |
| Indirect Debt— | | | | | | | | | | | | |
| Guaranteed bonds..... | 908,451 | 1,458,665 | 16,091 | 2,383,207 | 28,617 | 2,354,590 | 792,553 | 1,589,522 | 14,969 | 2,397,044 | 81,305 | 2,315,739 |
| Less Sinking funds..... | — | 11,211 | 646 | 11,857 | 1,658 | 10,199 | — | 16,235 | 378 | 16,613 | 1,730 | 14,883 |
| Net guaranteed bonds..... | 908,451 ⁴ | 1,447,454 | 15,445 | 2,371,350 | 26,959 | 2,344,391 | 792,553 ⁴ | 1,573,287 | 14,591 | 2,380,431 | 79,575 | 2,300,856 |
| Loans under the Municipal Improve- ment Assistance Act 1938..... | — | 3,127 | — | 3,127 | 3,127 | — | — | 2,867 | — | 2,867 | 2,867 | — |
| Guaranteed bank loans and other indirect liabilities..... | 353,080 ⁵ | 60,845 | 795 | 414,720 | 2,549 | 412,171 | 711,185 ⁵ | 78,176 | 332 | 789,693 | 1,927 | 787,766 |
| Totals, Indirect Debt (less Sinking Funds)..... | 1,261,531 | 1,511,426 | 16,240 | 2,789,197 | 32,635 | 2,756,562 | 1,503,738 | 1,654,330 | 14,923 | 3,172,991 | 84,369 | 3,068,622 |
| Grand Totals..... | 19,690,393 | 3,967,576 | 2,355,903 | 25,013,872 | 229,205 | 24,784,667 | 20,060,052 | 4,173,059 | 2,662,096 | 26,895,207 | 311,502 | 26,583,705 |

¹ Includes treasury bills having a term of two or more years.

² Includes treasury bills having a term of less than two years.

³ Excludes contingent liability in respect of Federal Government guar-

antee of deposits maintained by chartered banks in the Bank of Canada, miscellaneous guarantees the amount of which were not finally determined or were indeterminate

at the close of the fiscal year, and contingent liabilities of the Canadian National Railways.

⁴ Excludes unguaranteed issues of the Canadian National Railways and related sinking funds.

⁵ Excludes contingent liability in respect of Federal Government guar-

antee of deposits maintained by chartered banks in the Bank of Canada, miscellaneous guarantees the amount of which were not finally determined or were indeterminate

at the close of the fiscal year, and contingent liabilities of the Canadian National Railways.

Consolidated Debt.—The term “Consolidated” has been substituted for “Combined”, where applicable, because it is considered more appropriate in view of the elimination of inter-governmental debt. Table 5 gives details of combined debt of all governments for 1954 and 1955 with the aggregate debt of the federal, provincial and municipal governments; the inter-governmental debt is deducted to arrive at a consolidated government figure. This table was prepared according to the classifications and concepts that have been the subject of discussions and agreements at federal-provincial conferences on provincial and municipal finance statistics, so that some items are not strictly comparable with corresponding items given in previous editions of the Canada Year Book.

Section 2.—Federal Public Finance

A sketch of public finance from the French régime to the outbreak of World War I appears in the 1941 Year Book, pp. 742-743. Detailed sketches *re* tax changes from 1914 to 1938 will be found in issues of the Year Book beginning with the 1926 edition. An outline of the financing of Canada's war effort, including the more important changes in taxation during the war years from 1939 to 1945, is given in the 1945 Year Book, pp. 918-923. The postwar financial policy of the Government of Canada is outlined in the 1954 Year Book at pp. 1061-1064 and tax changes proposed in the 1954-55 and 1955-56 Budgets in the 1955 and 1956 editions, pp. 1130 and 1051, respectively.

The 1956-57 Budget.—The Budget for 1956-57 was presented to Parliament on Mar. 20, 1956. It made no significant changes in tax rates. A special excise tax of 20 p.c. on advertising revenues of Canadian editions of foreign magazines was introduced to take effect Jan. 1, 1957.

The 1957-58 Budget.—The Budget for 1957-58 was brought down on Mar. 14, 1957. It did not change rates of personal income tax, but provided for extension of the privilege of tax postponement on earned income to persons additional to those in employer-employee pension plans through deduction, up to certain limits, of the purchase price of approved annuities. Provision was made for any taxpayer to claim a “standard deduction” of one hundred dollars per year without submission of receipts for charitable donations, medical bills, union dues and professional membership dues, and there were other small changes in exemption provisions. A number of commodities were relieved of sales tax, including tea and coffee, and the last three of special excise taxes imposed at the time of the Korean war were removed from candy, soft drinks and motorcycles. Some small changes in excise tax were effected.

On Dec. 6, 1957, the Minister of Finance announced in Parliament that legislation would be introduced to implement changes in taxation, including: the raising from \$20,000 to \$25,000 the profit figure below which the corporation income tax rate of 20 p.c. would apply; the increase of personal income tax exemptions from \$150 to \$250 for children of family allowance age, and from \$400 to \$500 for others, with reduction of the rate of personal income tax in the two lowest taxable brackets to 11 p.c. and 14 p.c. from 13 p.c. and 15 p.c.; reduction of the excise tax on automobiles from 10 p.c. to 7.5 p.c.

Subsection 1.—Balance Sheets of the Federal Government

Table 6 shows the balance sheets of the Federal Government as at Mar. 31, 1955-57. The figures of this table are on a basis not strictly comparable to those in previous Year Books.

6.—Balance Sheet of the Federal Government as at Mar. 31, 1955-57

| Item | 1955 | 1956 | 1957 |
|--|-----------------------|-----------------------|-----------------------|
| | \$ | \$ | \$ |
| Assets | | | |
| Current Assets— | | | |
| Cash in current and special deposits..... | 231,045,677 | 570,819,850 | 472,199,177 |
| Cash in hands of collectors and in transit..... | 126,187,337 | 151,925,147 | 132,015,372 |
| Departmental Working Capital Advances and Revolving Funds— | | | |
| Defence Production Revolving Fund..... | 72,756,158 | 58,417,158 | 56,351,866 |
| Other..... | 72,911,128 | 76,625,372 | 67,587,377 |
| Other Current Assets— | | | |
| Moneys received after Mar. 31 but applicable to the current year..... | 17,046,026 | 11,676,345 | 14,649,402 |
| Securities investment account..... | 45,636,632 | 721,577,658 | 204,253,602 |
| | 565,582,958 | 1,591,041,530 | 947,056,796 |
| Advances to the Exchange Fund Account..... | 1,980,000,000 | 1,950,000,000 | 2,021,000,000 |
| Sinking fund and other investments held for retirement of unmatured debt..... | 190,890,503 | 210,846,784 | 210,805,017 |
| Loans to and Investments in Crown Corporations— | | | |
| Canadian National Railways..... | 934,004,940 | 1,104,676,348 | 1,276,760,593 |
| Central Mortgage and Housing Corporation—capital and loans..... | 575,010,188 | 564,551,193 | 560,508,002 |
| National Harbours Board..... | 107,210,354 | 107,088,959 | 114,267,198 |
| Miscellaneous..... | 177,253,319 | 231,193,431 | 298,969,889 |
| | 1,793,478,801 | 2,007,509,931 | 2,250,505,682 |
| Loans to National Governments..... | 1,620,825,611 | 1,549,804,685 | 1,478,559,528 |
| Other Loans and Investments— | | | |
| Canada's Subscription to Capital of— | | | |
| International Monetary Fund..... | 293,394,548 | 299,757,439 | 290,954,972 |
| International Bank for Reconstruction and Development..... | 70,864,349 | 70,864,349 | 70,864,349 |
| Working capital advances to international organizations.... | 1,667,856 | 1,652,711 | 2,479,700 |
| Provincial governments..... | 76,693,226 | 73,067,946 | 69,645,873 |
| Soldier Settlement and Veterans' Land Act loans (less reserve for conditional benefits)..... | 162,570,578 | 161,051,804 | 157,193,063 |
| Miscellaneous..... | 25,879,238 | 40,791,450 | 63,950,589 |
| | 631,069,795 | 647,185,699 | 655,088,546 |
| Province Debt Accounts..... | 2,296,152 | — | 100,124 |
| Deferred Charges— | | | |
| Unamortized loan flotation costs..... | 67,549,458 | 56,874,003 | 63,920,033 |
| Unamortized portion of actuarial deficiency in the super-annuation account..... | 189,000,000 | 189,000,000 | 139,000,000 |
| | 256,549,458 | 245,874,003 | 202,920,033 |
| Suspense Accounts— | | | |
| Temporary loan to Old Age Security Fund..... | 63,251,655 | 50,012,857 | 1,506,233 |
| Miscellaneous..... | 494,732 | 2,465 | 7,926,134 |
| | 63,746,387 | 50,015,322 | 9,432,367 |
| Capital Assets..... | 1 | 1 | 1 |
| Inactive Loans and Investments..... | 80,355,709 | 87,969,925 | 89,455,528 |
| Totals, Assets..... | 7,184,795,375 | 8,340,247,880 | 7,864,923,622 |
| Less reserve for losses on realization of assets..... | 496,384,065 | 496,384,065 | 546,384,065 |
| Net Assets..... | 6,688,411,310 | 7,843,863,815 | 7,318,539,557 |
| Net Debt..... | 11,263,080,154 | 11,280,368,964 | 11,007,651,158 |
| | 17,951,491,464 | 19,124,232,779 | 18,326,190,715 |

6.—Balance Sheet of the Federal Government as at Mar. 31, 1955-57—concluded

| Item | 1955 | 1956 | 1957 |
|--|-----------------------|-----------------------|-----------------------|
| | \$ | \$ | \$ |
| Liabilities | | | |
| Current and Demand Liabilities— | | | |
| Outstanding treasury cheques..... | 265,559,858 | 293,243,156 | 314,019,206 |
| Accounts payable..... | 201,906,394 | 202,971,491 | 232,859,952 |
| Non-interest bearing notes payable on demand..... | 224,591,500 | 223,828,500 | 211,828,500 |
| Matured debt outstanding..... | 53,715,869 | 31,876,201 | 35,989,816 |
| Interest due and outstanding..... | 54,233,575 | 58,231,988 | 59,158,908 |
| Interest accrued..... | 120,180,162 | 129,765,259 | 119,958,733 |
| Other current liabilities..... | 23,767,571 | 29,547,890 | 29,093,529 |
| | 943,954,929 | 969,464,485 | 1,002,908,644 |
| Deposit and Trust Accounts..... | 154,007,374 | 166,342,688 | 167,575,354 |
| Annuity, Insurance and Pension Accounts— | | | |
| Government annuities..... | 864,543,038 | 930,221,101 | 989,285,939 |
| Permanent services pension account..... | 277,638,893 | 346,373,948 | 426,305,539 |
| Superannuation account..... | 733,568,390 | 804,236,283 | 918,943,987 |
| Miscellaneous..... | 101,682,401 | 104,784,080 | 92,623,457 |
| | 1,977,432,722 | 2,185,615,422 | 2,427,158,922 |
| Undisbursed Balances of Appropriations to Special Accounts— | | | |
| National Defence equipment account (Sect. 3, Defence Appropriation Act, 1950)..... | 273,875,509 | 281,933,743 | 236,075,184 |
| Miscellaneous..... | 58,371,066 | 61,739,713 | 76,481,065 |
| | 332,246,575 | 343,673,456 | 312,556,249 |
| Suspense Accounts..... | 35,488,042 | 51,566,525 | 47,576,093 |
| Province Debt Accounts..... | 11,919,969 | — | — |
| Unmatured Debt— | | | |
| Bonds— | | | |
| Payable in Canada..... | 12,506,630,400 | 12,955,758,750 | 12,391,604,000 |
| Payable in London..... | 51,811,453 | 51,811,453 | 51,811,453 |
| Payable in New York..... | 348,000,000 | 300,000,000 | 300,000,000 |
| Treasury Bills and Notes— | | | |
| Payable in Canada..... | 1,590,000,000 | 2,100,000,000 | 1,625,000,000 |
| | 14,496,441,853 | 15,407,570,203 | 14,368,415,453 |
| Total Liabilities | 17,951,491,464 | 19,124,232,779 | 18,326,190,715 |

Subsection 2.—Revenue and Expenditure

In the fiscal year ended Mar. 31, 1957, Federal Government revenue amounted to \$5,107,000,000 compared with \$4,400,000,000 in the previous year, an increase of \$707,000,000. During the same period expenditure increased by \$406,000,000 from \$4,443,000,000 to \$4,849,000,000. The excess of revenue over expenditure for the fiscal year was \$258,000,000.

Tax revenue and non-tax revenue increased \$652,000,000 and \$55,000,000, respectively, over the previous fiscal year.

7.—Details of Revenue, Years Ended Mar. 31, 1955-57

| Revenue | 1955 | 1956 | 1957 |
|--|----------------------|----------------------|----------------------|
| | \$ | \$ | \$ |
| Ordinary Revenue— | | | |
| Tax Revenue— | | | |
| Customs import duties..... | 397,228,330 | 481,239,668 | 549,074,860 |
| Excise duties..... | 226,458,438 | 249,383,313 | 271,443,661 |
| Income tax..... | 2,265,297,267 | 2,279,503,232 | 2,745,199,494 |
| Personal ¹ | 1,189,447,835 | 1,185,699,725 | 1,400,451,444 |
| Corporations ¹ | 1,020,585,823 | 1,027,727,818 | 1,268,300,915 |
| On interest, dividends, rents, and royalties going abroad..... | 61,263,609 | 66,176,689 | 76,447,135 |
| Sales tax (net) ¹ | 572,214,713 | 641,510,469 | 717,080,563 |
| Succession duties..... | 44,768,028 | 66,607,026 | 79,709,197 |
| Other taxes..... | 267,471,304 | 277,477,462 | 285,423,996 |
| Totals, Tax Revenue..... | 3,773,438,080 | 3,995,721,170 | 4,647,931,771 |
| Non-tax Revenue— | | | |
| Post Office..... | 131,280,099 | 137,414,587 | 145,773,393 |
| Return on investments ² | 133,486,035 | 149,316,037 | 206,655,544 |
| Bullion and coinage..... | 1,836,149 | 3,246,887 | 4,089,662 |
| Other..... | 54,634,163 | 114,347,958 | 102,090,510 |
| Totals, Non-tax Revenue..... | 321,236,446 | 404,325,469 | 458,609,109 |
| Totals, Ordinary Revenue..... | 4,094,674,526 | 4,400,046,639 | 5,106,540,880 |
| Special Receipts and Other Credits..... | 28,838,774 | " | " |
| Grand Totals, Revenue..... | 4,123,513,300 | 4,400,046,639 | 5,106,540,880 |

¹ Excludes tax credited to Old Age Security Fund.
Bank of Canada.

² Includes interest on investments, and profits of the
Bank of Canada.

8.—Details of Expenditure, Years Ended Mar. 31, 1955-57

| Expenditure | 1955 | 1956 | 1957 |
|--|-------------|-------------|---------------|
| | \$ | \$ | \$ |
| Agriculture..... | 81,804,056 | 88,179,697 | 84,651,787 |
| Freight assistance of western feed grains..... | 18,997,834 | 15,999,464 | 17,499,934 |
| Other..... | 62,806,222 | 72,180,233 | 67,151,853 |
| Atomic Energy Control Board..... | 14,983,927 | 18,957,359 | 21,882,226 |
| Auditor General's Office..... | 672,474 | 651,903 | 690,331 |
| Canadian Broadcasting Corporation..... | 29,236,931 | 31,155,977 | 39,266,161 |
| Chief Electoral Officer..... | 312,058 | 445,106 | 205,722 |
| Citizenship and Immigration..... | 27,968,175 | 32,274,864 | 44,517,150 |
| Civil Service Commission..... | 2,333,042 | 2,428,238 | 2,731,240 |
| Defence Production..... | 18,878,447 | 16,075,562 | 20,469,410 |
| Capital assistance to defence industry..... | 9,710,542 | 6,491,427 | 9,938,292 |
| Other..... | 9,167,905 | 9,584,135 | 10,531,118 |
| External Affairs..... | 43,777,922 | 44,909,176 | 60,227,824 |
| Finance..... | 934,075,801 | 931,271,597 | 1,152,758,655 |
| Public Debt Charges— | | | |
| Interest on public debt..... | 477,914,894 | 492,624,067 | 520,189,398 |
| Annual amortization of bond discounts and commissions..... | 22,369,623 | 19,980,940 | 12,308,168 |
| Servicing of public debt..... | 775,001 | 596,261 | 555,866 |
| Cost of loan flotation..... | 1,255,925 | 1,170,467 | 1,088,036 |
| Totals, Public Debt Charges..... | 502,315,343 | 514,311,735 | 534,141,458 |

8.—Details of Expenditure, Years Ended Mar. 31, 1955-57—concluded

| Expenditure | 1955 | 1956 | 1957 |
|--|----------------------|----------------------|----------------------|
| | \$ | \$ | \$ |
| <i>Finance—concluded</i> | | | |
| Provincial subsidies and tax rental payments..... | 359,042,900 | 350,943,932 | 395,372,437 |
| Government contribution to Civil Service Superannuation Account..... | 37,381,978 | 31,526,248 | 72,359,995 |
| Reserve for possible losses on realization of active assets..... | — | — | 50,000,000 |
| Other..... | 35,355,580 | 34,489,682 | 100,884,765 |
| <i>Fisheries</i> | 11,151,813 | 12,411,672 | 13,796,710 |
| Governor General and Lieutenant-Governors..... | 400,385 | 400,395 | 412,712 |
| Insurance..... | 477,088 | 498,049 | 543,307 |
| Justice, including Penitentiaries..... | 16,423,823 | 17,317,471 | 19,065,569 |
| <i>Labour</i> | 69,771,586 | 69,577,960 | 75,854,286 |
| Unemployment Insurance Act, administration and Government contribution..... | 59,939,615 | 60,533,085 | 66,357,949 |
| Government annuities (payment required to maintain reserve).... | 371,521 | — | — |
| Other..... | 9,460,450 | 9,044,875 | 9,496,337 |
| <i>Legislation</i> | 6,654,556 | 6,820,670 | 7,176,643 |
| Mines and Technical Surveys..... | 43,747,296 | 38,227,790 | 35,926,412 |
| <i>National Defence</i> | 1,665,968,960 | 1,750,112,163 | 1,759,425,955 |
| Mutual Aid to NATO countries..... | 253,379,789 | 174,966,318 | 133,552,637 |
| Other..... | 1,412,589,171 | 1,575,145,845 | 1,625,873,318 |
| <i>National Film Board</i> | 3,430,589 | 4,067,393 | 4,960,143 |
| <i>National Health and Welfare</i> | 496,699,592 | 537,912,259 | 561,689,067 |
| General health grants..... | 31,597,427 | 33,528,854 | 36,280,147 |
| Family allowances..... | 566,465,965 | 582,535,026 | 597,517,840 |
| Old age assistance, blind persons and disabled persons allowances ¹ | 24,174,701 | 29,501,735 | 30,417,187 |
| Deficit Old Age Security Fund..... | 45,837,905 | 63,551,655 | 56,012,837 |
| Other ² | 28,623,694 | 29,094,989 | 41,461,036 |
| <i>National Research Council</i> | 15,700,525 | 16,077,844 | 19,019,561 |
| <i>National Revenue</i> | 55,010,594 | 56,070,232 | 61,823,868 |
| <i>Northern Affairs and National Resources</i> | 20,155,118 | 24,615,905 | 36,970,235 |
| <i>Post Office</i> | 123,611,055 | 127,421,739 | 139,992,921 |
| <i>Privy Council including Prime Minister's Office</i> | 3,800,361 | 3,872,993 | 3,912,157 |
| <i>Public Archives</i> | 421,302 | 486,150 | 577,163 |
| <i>Public Printing and Stationery</i> | 2,068,013 | 2,213,716 | 3,200,656 |
| <i>Public Works</i> | 130,780,634 | 142,101,418 | 165,336,569 |
| Trans-Canada Highway contributions..... | 18,133,982 | 16,100,554 | 36,137,664 |
| Other..... | 112,646,652 | 126,000,864 | 129,198,905 |
| <i>Royal Canadian Mounted Police</i> | 35,549,795 | 36,557,371 | 43,449,799 |
| <i>Secretary of State</i> | 2,671,242 | 2,968,421 | 3,491,456 |
| <i>Trade and Commerce</i> | 17,494,834 | 36,545,671 | 55,389,457 |
| <i>Transport</i> | 159,241,707 | 132,041,121 | 158,162,525 |
| <i>Veterans Affairs</i> | 240,089,187 | 248,459,754 | 251,457,621 |
| Grand Totals, Expenditure..... | 4,275,362,888 | 4,433,127,636 | 4,849,035,298 |

¹Pensions under the Old Age Security Act 1951 (effective January 1952) are paid out of the Old Age Security Fund account and are not recorded under departmental expenditure. See p. 273. ²Includes civil defence.

Subsection 3.—Analysis of Revenue from Taxation

The following analysis of taxation revenue is confined to excise duties, excise taxes, income tax and succession duties; customs receipts constitute a single item in the *Public Accounts* and are not analysed here.

Excise Duties

Excise duties proper are presented below with a summary of the excise tariff and statistics arising as a by-product of administration, such as the quantities of grain and other products used in distillation and the quantities of goods taken out of bond and subject to excise tax.

Canadian Excise Tariff.—The following is a statement of the Canadian excise tariff, as at Aug. 15, 1957:—

| | | | | | |
|--|----------------|---------|--|----------------|---------|
| Spirits..... | per proof gal. | \$12.00 | Spirits used directly in the manufacture of toilet preparations or cosmetics on which excise tax is applicable under Schedule I of the Excise Tax Act..... | per proof gal. | Free |
| Spirits used by licensed bonded manufacturers..... | per proof gal. | 1.50 | Canadian brandy..... | per proof gal. | \$10.00 |
| Spirits used in bond for manufacture of perfume..... | per proof gal. | Free | Malt, all, when brought into a brewery..... | per lb. | Free |
| Spirits used in bond for manufacture of approved chemical compositions..... | per proof gal. | 0.15 | Beer, all..... | per Imp. gal. | 0.38 |
| Spirits sold to druggists licensed under the Excise Act to be used exclusively in preparation of prescriptions for medicines and pharmaceutical preparations.... | per proof gal. | 1.50 | Tobacco, manufactured, all descriptions except cigarettes..... | per lb. | 0.35 |
| Spirits distilled from wine produced from native fruits, and used in any bonded manufactory for the treatment of domestic wine..... | per proof gal. | Free | Cigarettes, weighing not more than two and one-half pounds..... | per M | 4.00 |
| Spirits imported and taken into a bonded manufactory (in addition to duties otherwise imposed).... | per proof gal. | 0.30 | Cigarettes, weighing more than two and one-half pounds..... | per M | 5.00 |
| | | | Cigars, all..... | per M | 1.00 |
| | | | Canadian raw leaf tobacco, when sold for consumption..... | per lb. | 0.10 |

A drawback of 99 p.c. of the duty may be granted when domestic spirits, testing not less than 50 p.c. over proof, are delivered in limited quantities for medicinal or research purposes to universities, scientific or research laboratories, public hospitals, or health institutions in receipt of federal and provincial government aid.

9.—Gross Excise Duties Collected, Years Ended Mar. 31, 1953-57

| Item | 1953 | 1954 | 1955 | 1956 | 1957 |
|--------------------------------|--------------------|--------------------|------------------------|--------------------|--------------------|
| | \$ | \$ | \$ | \$ | \$ |
| Spirits..... | 48,627,965 | 69,194,020 | 72,185,407 | 77,518,388 | 86,180,032 |
| Validation fee..... | 746,877 | — | — | — | — |
| Beer or malt liquor..... | 5,294,283 | 4,799,823 | 72,676,281 | 80,742,806 | 83,077,741 |
| Malt..... | 80,584,283 | 78,733,288 | 1,151,032 ¹ | — | — |
| Tobacco and cigarettes..... | 116,701,207 | 96,724,855 | 100,511,808 | 110,092,584 | 120,818,541 |
| Cigars..... | 212,817 | 245,862 | 241,177 | 262,477 | 267,235 |
| Licences..... | 38,183 | 36,519 | 36,826 | 35,143 | 35,556 |
| Totals²..... | 252,205,615 | 249,734,366 | 246,802,531 | 268,651,398 | 290,379,105 |

¹ Tax on malt replaced by gallage tax on beer.

² These totals do not agree with net excise duties as shown in Table 7 because refunds, drawbacks and, for spirits, a transfer tax are included here.

Statistics of Licences and Distillation.—As a result of the collection of excise duties, statistics are compiled of excise licences issued and of distillation.

10.—Statistics of Licences and Distillation, Years Ended Mar. 31, 1953-57

| Item | 1953 | 1954 | 1955 | 1956 | 1957 |
|---|------------------------|--------------------|--------------------|--------------------|--------------------|
| Licences issued..... | No. 29 | 29 | 30 | 30 | 28 |
| Licence fees..... | \$ 7,750 | 7,500 | 8,000 | 6,500 | 7,750 |
| Grain, etc., Used for Distillation— | | | | | |
| Malt..... | lb. 31,169,426 | 34,770,622 | 37,438,384 | 40,523,848 | 41,788,225 |
| Indian corn..... | " 193,629,683 | 223,715,461 | 233,470,614 | 256,237,853 | 281,299,649 |
| Rye..... | " 30,404,971 | 42,888,000 | 40,697,817 | 50,297,683 | 55,480,416 |
| Wheat and other grain..... | " 17,996,080 | 828,440 | 26,448,064 | 3,013,785 | 803,490 |
| Totals, Grain Used..... | lb. 273,200,160 | 302,202,523 | 338,054,879 | 350,073,169 | 379,371,780 |
| Molasses used..... | lb. 22,614,185 | 21,965,692 | 31,922,119 | 35,793,467 | 35,471,876 |
| Wine and other materials..... | " 4,674,714 | 3,696,117 | 5,721,010 | 5,303,650 | 4,114,008 |
| Sulphide liquor..... | gal. 98,380,740 | 394,040,231 | 370,916,068 | 409,830,302 | 368,070,334 |
| Proof spirits manufactured...proof gal. | 22,517,166 | 24,710,625 | 27,330,433 | 28,535,869 | 30,028,834 |

The quantity of spirits manufactured has fluctuated greatly since 1920, varying from a low of 2,356,329 proof gal. in that year to a high of 35,555,059 proof gal. recorded in 1945. The total for 1957 was 30,028,834 proof gal.

Alcohol and Tobacco Taken Out of Bond.—The amounts of beverage spirits, malt beer, malt, cigars, cigarettes and other tobacco taken out of bond for consumption are given in Table 36, p. 965.

Excise Taxes Collected

The statistics given in Table 11 represent gross excise tax collection by the Excise Division of the Department of National Revenue.

11.—Excise Taxes Collected by Commodity, Years Ended Mar. 31, 1953-57

(Accrued Revenue)

| Commodity | 1953 | 1954 | 1955 | 1956 | 1957 |
|-------------------------------------|---------------|-------------------------|-------------------------|-------------------------|-------------------------|
| | \$ | \$ | \$ | \$ | \$ |
| Domestic— | | | | | |
| Automobiles, tires and tubes..... | 78,810,971 | 92,498,632 | 71,356,616 | 63,298,865 | 69,314,263 |
| Beverages..... | 12,342,608 | 11,577,882 | 8,078,328 | 8,607,286 | 8,848,161 |
| Candy and chewing gum..... | 11,216,434 | 11,812,938 | 9,121,728 | 8,390,591 | 9,021,685 |
| Carbonic acid gas..... | 214,538 | 220,859 | 158,453 | 147,937 | 139,378 |
| Cigars, cigarettes and tobacco..... | 100,678,509 | 110,946,708 | 112,677,653 | 125,107,756 | 130,581,694 |
| Electrical and gas apparatus..... | 3,269,802 | 3,701,518 | 406,613 | ... | ... |
| Embossed cheques (departmental).... | 334,884 | ... | ... | ... | ... |
| Furs..... | 5,213,346 | 3,366,217 | 54,591 | ... | ... |
| Licences..... | 86,768 | 86,568 | 84,160 | 82,062 | 84,520 |
| Lighters..... | 235,889 | 218,211 | 124,684 | 80,674 | 69,640 |
| Matches..... | 1,071,159 | 1,019,072 | 656,642 | 597,394 | 604,431 |
| Other taxes on manufactures..... | 13,176,366 | 11,200,616 | 4,907,621 | 4,522,546 | 5,387,461 |
| Phonographs, radios and tubes..... | 10,085,974 | 15,874,817 ¹ | 20,521,374 ¹ | 21,640,746 ¹ | 17,763,111 ¹ |
| Playing cards..... | 723,600 | 709,600 | 649,915 | 648,975 | 635,202 |
| Sales, domestic..... | 611,362,280 | 633,817,293 | 616,558,675 | 676,008,159 | 764,048,020 |
| Stamps..... | 10,226,135 | ... | ... | ... | ... |
| Toilet preparations..... | 6,961,538 | 6,768,726 | 5,016,582 | 5,335,626 | 5,828,044 |
| Wines..... | 2,215,540 | 2,230,673 | 2,354,267 | 2,485,760 | 2,618,324 |
| Penalties and interest..... | 374,691 | 309,888 | 342,250 | 315,014 | 399,648 |
| Totals, Domestic..... | 868,601,032 | 906,360,218 | 853,070,152 | 917,269,391 | 1,015,343,582 |
| Imported..... | 135,346,520 | 146,539,166 | 137,438,524 | 166,931,249 | 176,714,583 |
| Grand Totals..... | 1,003,947,546 | 1,052,899,387 | 990,508,676 | 1,084,200,640 | 1,192,058,165 |

¹ Includes tax on television sets and tubes of \$11,340,860 in 1954, \$16,668,388 in 1955, \$17,627,314 in 1956 and \$12,443,101 in 1957.

Income Tax

Income Tax Collections by the Department of National Revenue on a Fiscal Year Basis.—Statistics of income tax collections are gathered at the time the payments are made and are therefore up-to-date. Over 85 p.c. of individual taxpayers are wage or salary earners who have almost the whole of their tax liability deducted at the source by their employers. All other taxpayers are required to pay most of their estimated tax during the taxation year. Thus, the greater part of the tax is collected during the same year in which the related income is earned and only a limited residue remains to be collected when the returns are filed. The collections for a given fiscal year include tax deductions and instalments for twelve months, embracing portions of two taxation years, and a mixture of year-end payments for the first of these years and for the preceding year, and cannot therefore be closely related to the statistics for a given taxation year. As little information about a taxpayer is received when the payment is made and as a single cheque from one employer may frequently cover the tax payments of hundreds of employees, the payments cannot be statistically related to taxpayers by occupation or income. Descriptive classifications of taxpayers are available only from tax returns but collection statistics, if interpreted with the current tax structure and the above factors in mind, indicate the trend of income in advance of the final compilation of statistics.

The statistics given in Table 12 pertain to tax collections by the Taxation Division of the Department of National Revenue. The collections are for fiscal years ended Mar. 31.

12.—Taxes Collected by the Taxation Division of the Department of National Revenue, Years Ended Mar. 31, 1947-56

NOTE.—Figures for 1917-34 are given in the 1947 Year Book, pp. 999-1000; for 1935-46 in the 1951 edition, p. 994.

| Year Ended Mar. 31— | Income Tax | | | Excess Profits Tax | Succession Duties | Total Collections |
|------------------------|----------------------------|----------------------------|----------------------------|--------------------------|----------------------|----------------------------|
| | Individual | Corporation | Total | | | |
| | \$ | \$ | \$ | \$ | \$ | \$ |
| 1947..... | 724,666,292 ¹ | 238,791,953 | 963,458,245 ¹ | 448,697,443 ¹ | 23,576,071 | 1,435,731,759 ¹ |
| 1948..... | 695,717,243 | 364,131,114 | 1,059,848,357 | 227,030,494 | 30,828,040 | 1,317,706,891 |
| 1949..... | 806,009,280 | 491,990,124 | 1,297,999,404 | 44,791,918 | 25,549,777 | 1,368,341,099 |
| 1950..... | 669,457,059 | 603,193,132 | 1,272,650,191 | —1,788,387 ² | 29,919,780 | 1,300,781,584 |
| 1951..... | 713,938,999 | 799,196,511 | 1,513,135,510 | 10,140,910 | 33,599,089 | 1,556,875,509 |
| 1952..... | 1,030,793,334 ³ | 1,132,680,074 ³ | 2,163,473,408 ³ | 2,364,909 | 38,207,985 | 2,204,046,302 |
| 1953..... | 1,278,949,939 ³ | 1,276,940,150 ³ | 2,555,890,089 ³ | — | 38,070,529 | 2,593,960,618 |
| 1954..... | 1,332,116,907 ³ | 1,246,786,598 ³ | 2,578,903,505 ³ | — | 39,137,594 | 2,618,041,099 |
| 1955..... | 1,345,611,443 ³ | 1,066,585,823 ³ | 2,412,197,266 ³ | — | 44,768,029 | 2,456,965,295 |
| 1956..... | 1,354,275,414 ³ | 1,081,055,818 ³ | 2,435,331,232 ³ | — | 66,607,026 | 2,501,938,258 |

¹ Includes refundable portion of taxes.

² Refunds arising out of renegotiation of war contracts were in excess of collections.

³ Includes old age security tax.

Individual Income Tax Statistics.—Individual income tax statistics are presented in Table 13 on a calendar-year basis and are compiled from a 10-p.c. sample of all returns received. Taxpayers are shown for certain selected cities and occupational classifications.

13.—Number of Taxpayers and Amounts of Income and Tax by Selected Cities and Occupational Class 1954

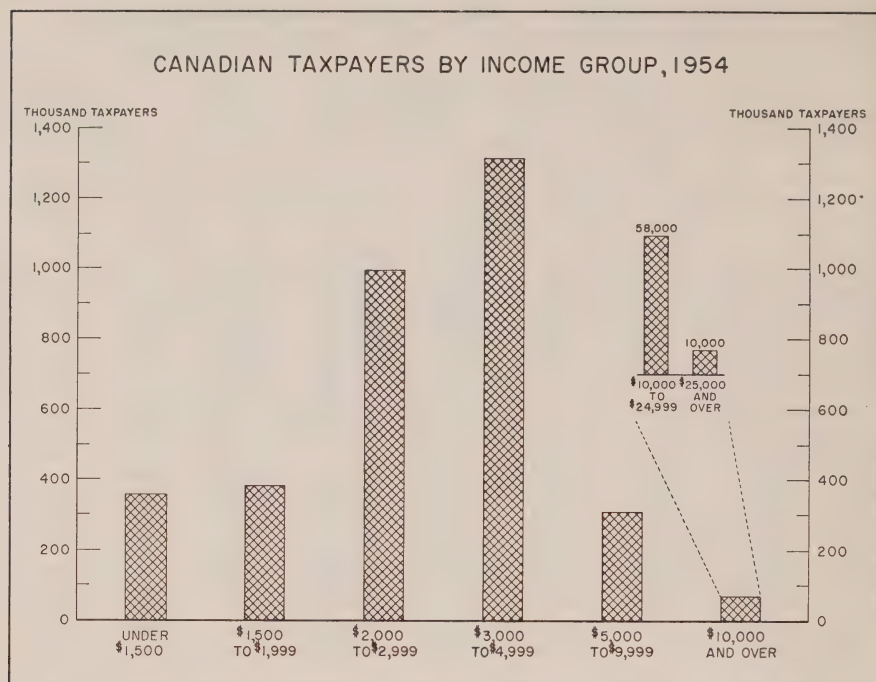
| City | Tax- payers | Total Income Assessed | Tax Payable ¹ | Class | Tax- payers | Total Income Assessed | Tax Payable ¹ |
|--------------------------------------|----------------|-----------------------------|-----------------------------|------------------------------------|----------------|-----------------------------|-----------------------------|
| City | No. | \$'000 | \$'000 | Occupational Class | No. | \$'000 | \$'000 |
| St. John's..... | 15,670 | 52,547 | 4,883 | Farmers and fishermen. | 43,420 | 155,529 | 13,160 |
| Halifax..... | 36,060 | 119,928 | 10,158 | Farmers..... | 39,480 | 139,161 | 11,436 |
| Saint John..... | 17,590 | 54,574 | 4,147 | Fishermen..... | 3,940 | 16,368 | 1,674 |
| Montreal..... | 456,990 | 1,650,701 | 155,481 | Professionals..... | 35,120 | 309,912 | 61,970 |
| Quebec..... | 48,290 | 158,839 | 11,904 | Accountants..... | 3,330 | 28,619 | 5,414 |
| Sherbrooke..... | 11,610 | 37,899 | 2,917 | Medical doctors..... | 9,920 | 117,966 | 25,022 |
| Ottawa..... | 78,310 | 281,953 | 28,833 | Dentists..... | 4,180 | 32,531 | 5,046 |
| Toronto..... | 537,190 | 1,952,031 | 223,488 | Lawyers and notaries. | 5,650 | 67,374 | 16,225 |
| Oshawa..... | 16,990 | 58,965 | 5,369 | Engineers and archi- tects..... | 1,910 | 23,033 | 5,424 |
| Hamilton..... | 92,780 | 322,528 | 31,948 | Nurses..... | 3,300 | 6,636 | 440 |
| St. Catharines..... | 20,230 | 74,268 | 7,330 | Other professionals... | 6,890 | 33,763 | 4,399 |
| Niagara Falls..... | 15,990 | 57,880 | 5,330 | Employees..... | 3,032,300 | 9,715,488 | 817,545 |
| Kitchener and Waterloo | 27,320 | 93,910 | 9,631 | Salesmen..... | 38,490 | 177,321 | 19,176 |
| London..... | 45,220 | 149,923 | 13,436 | Business proprietors.... | 169,660 | 843,431 | 110,227 |
| Windsor..... | 49,680 | 178,322 | 17,096 | Investors..... | 68,090 | 409,166 | 66,410 |
| Sudbury and Copper Cliff..... | 30,820 | 115,486 | 10,429 | Pensioners..... | 10,540 | 32,641 | 2,236 |
| Port William and Port Arthur..... | 25,140 | 83,063 | 7,016 | All others..... | 12,540 | 63,417 | 6,668 |
| Winnipeg..... | 126,330 | 422,769 | 40,025 | Totals..... | 3,410,160 | 11,706,905 | 1,097,392 |
| Regina..... | 31,820 | 106,328 | 10,767 | | | | |
| Saskatoon..... | 20,910 | 72,336 | 7,235 | | | | |
| Calgary..... | 61,090 | 221,977 | 24,416 | | | | |
| Edmonton..... | 77,450 | 264,732 | 26,564 | | | | |
| Vancouver..... | 173,170 | 628,771 | 68,505 | | | | |
| New Westminster..... | 24,050 | 82,966 | 7,795 | | | | |
| Victoria..... | 36,900 | 126,230 | 10,945 | | | | |
| Other localities..... | 1,332,560 | 4,340,979 | 351,744 | | | | |
| Totals..... | 3,410,160 | 11,706,905 | 1,097,392 | | | | |

¹ Includes old age security tax.

14.—Individual Income Tax Statistics by Income Class 1953 and 1954

| Income Class | Taxpayers | | Total Income Assessed | | Tax Payable ¹ | | Average Tax ¹ | |
|--|-----------|-----------|-----------------------|------------|--------------------------|-----------|--------------------------|--------|
| | 1953 | 1954 | 1953 | 1954 | 1953 | 1954 | 1953 | 1954 |
| | No. | No. | \$'000 | \$'000 | \$'000 | \$'000 | \$ | \$ |
| Under \$1,500..... | 369,350 | 357,150 | 444,116 | 430,573 | 16,039 | 14,283 | 43 | 40 |
| \$1,500 under \$1,600... | 77,130 | 75,420 | 119,456 | 116,665 | 6,605 | 5,981 | 86 | 79 |
| \$1,600 " \$1,700... | 76,400 | 76,180 | 125,803 | 125,356 | 7,605 | 7,090 | 100 | 93 |
| \$1,700 " \$1,800... | 78,470 | 77,210 | 137,168 | 134,826 | 9,143 | 8,242 | 117 | 107 |
| \$1,800 " \$1,900... | 78,960 | 79,650 | 145,729 | 146,845 | 10,353 | 9,608 | 131 | 121 |
| \$1,900 " \$2,000... | 76,120 | 74,430 | 148,141 | 144,985 | 11,208 | 10,062 | 147 | 135 |
| Totals, \$1,500 and under \$2,000..... | 387,080 | 382,890 | 676,297 | 668,677 | 44,914 | 40,983 | 116 | 107 |
| \$2,000 under \$2,100... | 83,130 | 84,790 | 170,202 | 173,562 | 12,183 | 11,516 | 147 | 136 |
| \$2,100 " \$2,200... | 85,060 | 84,500 | 182,651 | 181,220 | 12,607 | 11,884 | 148 | 141 |
| \$2,200 " \$2,300... | 89,450 | 86,470 | 200,885 | 194,144 | 13,846 | 12,661 | 155 | 146 |
| \$2,300 " \$2,400... | 92,240 | 92,000 | 216,461 | 215,852 | 14,426 | 13,417 | 157 | 146 |
| \$2,400 " \$2,500... | 101,530 | 97,300 | 248,336 | 237,978 | 16,291 | 14,822 | 160 | 152 |
| \$2,500 " \$2,600... | 102,760 | 101,520 | 261,568 | 258,594 | 16,791 | 15,629 | 163 | 154 |
| \$2,600 " \$2,700... | 108,620 | 107,620 | 287,345 | 284,557 | 18,005 | 16,642 | 166 | 155 |
| \$2,700 " \$2,800... | 108,360 | 110,750 | 297,648 | 304,035 | 18,689 | 18,144 | 172 | 164 |
| \$2,800 " \$2,900... | 109,290 | 108,610 | 311,084 | 309,051 | 19,645 | 18,614 | 180 | 171 |
| \$2,900 " \$3,000... | 111,050 | 106,570 | 327,201 | 313,884 | 21,003 | 18,833 | 189 | 177 |
| Totals, \$2,000 and under \$3,000..... | 991,490 | 980,130 | 2,503,381 | 2,472,877 | 163,486 | 152,162 | 165 | 155 |
| \$3,000 under \$3,100... | 110,440 | 110,990 | 336,166 | 337,940 | 21,981 | 20,513 | 199 | 185 |
| \$3,100 " \$3,200... | 109,330 | 109,460 | 343,881 | 344,248 | 22,814 | 21,367 | 209 | 195 |
| \$3,200 " \$3,300... | 103,410 | 104,670 | 335,280 | 340,153 | 22,777 | 21,799 | 220 | 208 |
| \$3,300 " \$3,400... | 100,420 | 102,450 | 335,833 | 342,662 | 23,230 | 22,256 | 231 | 217 |
| \$3,400 " \$3,500... | 95,520 | 97,690 | 329,153 | 336,525 | 23,153 | 22,363 | 242 | 229 |
| \$3,500 " \$4,000... | 384,500 | 390,970 | 1,432,531 | 1,456,531 | 111,791 | 105,417 | 291 | 270 |
| \$4,000 " \$4,500... | 236,330 | 245,420 | 997,780 | 1,036,125 | 88,685 | 84,781 | 375 | 345 |
| \$4,500 " \$5,000... | 145,050 | 151,770 | 685,150 | 716,591 | 67,273 | 64,662 | 464 | 426 |
| Totals, \$3,000 and under \$5,000..... | 1,285,000 | 1,313,420 | 4,795,774 | 4,910,775 | 381,704 | 363,158 | 297 | 276 |
| \$5,000 under \$6,000... | 149,290 | 158,770 | 809,882 | 861,187 | 87,817 | 86,373 | 588 | 544 |
| \$6,000 " \$7,000... | 67,120 | 71,450 | 431,741 | 459,161 | 52,713 | 51,221 | 785 | 717 |
| \$7,000 " \$8,000... | 36,880 | 38,110 | 274,806 | 283,558 | 36,345 | 34,724 | 985 | 911 |
| \$8,000 " \$9,000... | 22,630 | 23,450 | 192,137 | 198,306 | 27,866 | 25,863 | 1,231 | 1,103 |
| \$9,000 " \$10,000... | 16,220 | 16,120 | 153,847 | 152,252 | 23,899 | 21,495 | 1,473 | 1,333 |
| Totals, \$5,000 and under \$10,000... | 292,140 | 307,900 | 1,862,413 | 1,954,464 | 228,640 | 219,676 | 783 | 713 |
| \$10,000 under \$15,000 | 36,250 | 38,170 | 436,854 | 458,059 | 79,566 | 75,731 | 2,195 | 1,984 |
| \$15,000 " \$20,000 | 13,200 | 14,000 | 225,118 | 240,863 | 53,038 | 52,035 | 4,018 | 3,717 |
| \$20,000 " \$25,000 | 5,760 | 6,310 | 128,077 | 139,932 | 35,453 | 35,242 | 6,155 | 5,585 |
| Totals, \$10,000 and under \$25,000... | 55,210 | 58,480 | 790,049 | 838,854 | 168,057 | 163,008 | 3,044 | 2,787 |
| \$25,000 under \$50,000 | 7,310 | 8,270 | 240,046 | 272,692 | 79,747 | 81,417 | 10,909 | 9,845 |
| \$50,000 and over..... | 1,950 | 1,920 | 154,645 | 157,993 | 64,675 | 62,705 | 33,164 | 32,659 |
| Totals, \$25,000 and over..... | 9,260 | 10,190 | 394,691 | 430,685 | 144,422 | 144,122 | 15,596 | 14,143 |
| Grand Totals..... | 3,389,530 | 3,410,160 | 11,466,721 | 11,706,905 | 1,147,262 | 1,097,392 | 338 | 322 |

¹ Includes old age security tax.



Corporation Income Tax Statistics.—Corporation statistics presented in Tables 15 and 16 are on a taxation-year basis prior to assessment. The data were extracted and compiled from the returns shortly after they were filed and are as declared by the taxpayer without the scrutiny or revision of the Department of National Revenue. Provincial figures contain an unavoidable bias in favour of Ontario and Quebec because many large corporations operating across Canada file their returns in one or other of these two provinces.

15.—Summary Statistics for Corporations Reporting a Profit, Taxation Years 1953 and 1954

| Item | 1953 | | | 1954 | | |
|---|------------------------|---------------------|----------------------------------|------------------------|---------------------|----------------------------------|
| | Corporations Reporting | Current Year Profit | Income Tax Declared ¹ | Corporations Reporting | Current Year Profit | Income Tax Declared ¹ |
| | No. | \$'000 | \$'000 | No. | \$'000 | \$'000 |
| Active taxable corporations—excluding co-operatives and Crown corporations... | 34,664 | 2,639,848 | 1,150,319 | 36,393 | 2,398,518 | 1,010,357 |
| Inactive corporations..... | 876 | 711 | 140 | 878 | 677 | 168 |
| Co-operatives..... | 2,000 | 10,386 | 3,428 | 1,875 | 9,262 | 2,914 |
| Crown corporations..... | 5 | 15,025 | 7,328 | 6 | 14,918 | 7,265 |
| Totals, Taxable Corporations..... | 37,545 | 2,665,970 | 1,161,215 | 39,152 | 2,423,375 | 1,020,704 |
| Personal corporations..... | 1,469 | 21,624 | — | 1,632 | 24,359 | — |
| Other exempt corporations ² | 2,644 | 21,527 | 11 | 2,940 | 32,593 | 14 |
| Totals, Taxable and Exempt..... | 41,658 | 2,709,121 | 1,161,226 | 43,724 | 2,480,327 | 1,020,718 |

¹ Includes old age security tax. here as tax declared.

² Includes foreign corporations paying \$100 filing fee which is recorded

16.—Distribution of Active Taxable Corporations Reporting a Profit by Income Class, Industry and Province, Taxation Years 1953 and 1954

| Income Class, Industrial Division and Province | 1953 | | | 1954 | | |
|--|---------------------------|---------------------------|--|---------------------------|---------------------------|--|
| | Corporations Reporting | Current Year Profit | Income Tax Declared ¹ | Corporations Reporting | Current Year Profit | Income Tax Declared ¹ |
| | No. | \$'000 | \$'000 | No. | \$'000 | \$'000 |
| Income Class | | | | | | |
| Under \$1,000 | 4,936 | 2,092 | 295 | 5,389 | 2,300 | 330 |
| \$1,000 to \$2,000 | 3,149 | 4,563 | 698 | 3,466 | 5,051 | 781 |
| \$2,000 to \$3,000 | 2,402 | 5,927 | 1,007 | 2,658 | 6,499 | 1,089 |
| \$3,000 to \$4,000 | 1,898 | 6,562 | 1,194 | 2,178 | 7,559 | 1,307 |
| \$4,000 to \$5,000 | 1,681 | 7,507 | 1,376 | 1,750 | 7,814 | 1,356 |
| \$5,000 to \$10,000 | 5,888 | 43,124 | 8,274 | 5,649 | 40,687 | 7,474 |
| \$10,000 to \$15,000 | 3,295 | 40,348 | 8,441 | 3,415 | 41,912 | 7,877 |
| \$15,000 to \$20,000 | 2,561 | 45,014 | 9,834 | 3,316 | 58,871 | 11,285 |
| \$20,000 to \$25,000 | 1,455 | 32,176 | 8,087 | 1,664 | 36,582 | 7,903 |
| \$25,000 to \$50,000 | 2,713 | 95,891 | 31,447 | 2,690 | 94,902 | 29,187 |
| \$50,000 to \$100,000 | 1,812 | 126,174 | 50,103 | 1,696 | 119,165 | 45,467 |
| \$100,000 to \$250,000 | 1,525 | 235,797 | 103,165 | 1,323 | 208,329 | 88,598 |
| \$250,000 to \$500,000 | 623 | 218,181 | 99,992 | 562 | 194,092 | 86,164 |
| \$500,000 to \$1,000,000 | 361 | 250,552 | 114,720 | 308 | 215,839 | 98,209 |
| \$1,000,000 to \$5,000,000 | 290 | 587,716 | 275,337 | 265 | 554,477 | 254,407 |
| Over \$5,000,000 | 75 | 938,224 | 436,349 | 64 | 804,439 | 368,923 |
| Totals | 34,664 | 2,639,848 | 1,150,319 | 36,393 | 2,398,518 | 1,010,357 |
| Industrial Division | | | | | | |
| Agriculture, fishing and forestry | 572 | 10,024 | 3,418 | 631 | 12,315 | 3,994 |
| Mining | 507 | 146,035 | 67,090 | 513 | 146,729 | 63,916 |
| Manufacturing | 9,095 | 1,446,653 | 650,896 | 9,117 | 1,233,396 | 543,088 |
| Construction | 2,673 | 105,399 | 41,538 | 3,155 | 104,003 | 38,839 |
| Transportation, storage and communication | 1,671 | 197,586 | 89,491 | 1,733 | 146,194 | 63,696 |
| Public utilities | 134 | 54,324 | 23,194 | 147 | 50,406 | 20,959 |
| Wholesale trade | 5,699 | 206,056 | 83,290 | 6,231 | 174,781 | 64,800 |
| Retail trade | 6,515 | 179,786 | 75,416 | 6,439 | 158,689 | 61,977 |
| Service | 3,301 | 62,566 | 22,939 | 3,372 | 60,298 | 21,031 |
| Finance | 4,493 | 231,408 | 93,047 | 5,055 | 311,707 | 128,057 |
| Unclassified | 4 | 6 | — | — | — | — |
| Province | | | | | | |
| Newfoundland | 414 | 24,503 | 10,776 | 423 | 26,857 | 11,570 |
| Prince Edward Island | 159 | 3,307 | 1,133 | 155 | 2,337 | 651 |
| Nova Scotia | 1,189 | 38,226 | 15,992 | 1,202 | 34,407 | 13,896 |
| New Brunswick | 766 | 28,037 | 12,113 | 769 | 27,239 | 11,345 |
| Quebec | 9,095 | 820,593 | 337,436 | 9,302 | 798,094 | 322,293 |
| Ontario | 12,270 | 1,272,510 | 576,290 | 13,211 | 1,088,631 | 478,293 |
| Manitoba | 1,853 | 98,262 | 44,403 | 1,909 | 87,629 | 38,206 |
| Saskatchewan | 980 | 22,369 | 8,668 | 946 | 17,403 | 6,239 |
| Alberta | 2,522 | 104,658 | 43,981 | 2,676 | 96,262 | 36,152 |
| British Columbia | 5,416 | 227,383 | 99,527 | 5,800 | 219,659 | 91,712 |

¹ Includes old age security tax.

Succession Duties

A history of succession duties in Canada, together with examples of the occurrences of federal duty on typical estates and of combined federal and provincial duties on typical estates, is given in the 1956 Year Book, pp. 1064-1068.

At Dec. 31, 1957, only Ontario and Quebec among the provinces remained in this field. The deduction in the federal duty in respect of provincial duty was raised in 1957 for the estates of all persons dying on or after Apr. 1, 1957, to one-half of the federal duty on doubly taxed property and one-half the federal duty on pensions in the estates of persons domiciled in Quebec or Ontario.

An Agreement between Canada and Ireland came into effect on Dec. 20, 1955.

Table 17 shows the receipts of the various governments from succession duties for 1954-57.

17.—Federal and Provincial Net Revenue from Succession Duties, Years Ended Mar. 31, 1954-57

NOTE.—Statistics for 1948-52 are given in the 1954 Year Book, p. 1080, and for 1953 in the 1956 edition, p. 1064.

| Province | 1954 | 1955 | 1956 | 1957 |
|---------------------------|--------|--------|--------|--------|
| | \$'000 | \$'000 | \$'000 | \$'000 |
| Federal..... | 39,138 | 44,768 | 66,607 | 79,709 |
| Provincial— ¹ | | | | |
| Newfoundland..... | — | — | — | — |
| Prince Edward Island..... | — | — | — | — |
| Nova Scotia..... | 5 | 2 | 5 | 2 |
| New Brunswick..... | 6 | — | — | — |
| Quebec..... | 10,913 | 13,000 | 46,558 | 33,750 |
| Ontario..... | 20,164 | 23,000 | 25,463 | 25,000 |
| Manitoba..... | 5 | 3 | 5 | 5 |
| Saskatchewan..... | 23 | 23 | 10 | 10 |
| Alberta..... | 17 | 5 | 5 | 5 |
| British Columbia..... | — | — | — | — |

¹ Under terms of the 1952 Dominion-Provincial Taxation Agreements all provinces except Ontario and Quebec refrain from levying succession duties; amounts shown for other provinces are arrears. Provincial figures for 1957 are preliminary.

The federal legislation was amended, effective for the estates of persons dying on or after Apr. 1, 1957, by allowing a full 50-p.c. reduction of the federal duty on any property which had been taxed by Canada and a prescribed province (Ontario and Quebec) and a similar 50-p.c. reduction in the federal duty on pensions in the estates of persons dying domiciled in the said provinces. Another amendment provides that charitable successions may be deducted from the aggregate net value of the estate so that the amount of such items will not result in increasing the rates of duty paid by other successors.

If gift tax payable under the provisions of the Income Tax Act has been paid in connection with the transfer made by a deceased person during his lifetime, then no succession duty is payable in respect of such gift except to the extent that succession duty thereon is in excess of the gift tax.

Subsection 4.—Subsidies and Taxation Agreements with the Provinces

Subsidies.—A summary history of certain annual payments made by the Federal Government to the provinces under the provisions of the British North America Act and subsequent arrangements entered into from time to time appear in the 1956 Year Book, pp. 1068-1069.

The following table shows individual subsidy allowances by province for the years ended Mar. 31, 1956 and 1957.

18.—Individual Subsidy Allowances by Province, Years Ended Mar. 31, 1956 and 1957

(Thousands of dollars)

| Year and Subsidy | Nfld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Total |
|---------------------------------------|--------------|------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|
| 1956 | | | | | | | | | | | |
| Allowance for governments..... | 180 | 100 | 190 | 190 | 240 | 240 | 220 | 220 | 220 | 220 | 2,020 |
| Allowance on basis of population..... | 289 | 87 | 514 | 413 | 2,933 | 3,259 | 656 | 697 | 820 | 932 | 10,600 |
| Interest on debt allowance..... | — | 39 | 53 | 26 | 128 | 142 | 382 | 405 | 405 | 29 | 1,609 |
| Special Grants— | | | | | | | | | | | |
| Additional Annual Subsidy— | | | | | | | | | | | |
| Statutes 1949, c. 1..... | 1,100 | — | — | — | — | — | — | — | — | — | 1,100 |
| Statutes 1942, c. 14..... | — | 275 | 1,300 | 900 | — | — | — | — | — | — | 2,475 |
| Statutes 1887, c. 8 and R.S. 1927, | | | | | | | | | | | |
| c. 12..... | — | 20 | — | — | — | — | — | — | — | — | 20 |
| Statutes 1912, c. 42..... | — | 100 | — | — | — | — | — | — | — | — | 100 |
| In lieu of public lands..... | — | 6 | — | — | — | — | 562 | 750 | 750 | 100 | 2,168 |
| In settlement of steamship services | | | | | | | | | | | |
| claims..... | — | 30 | — | — | — | — | — | — | — | — | 30 |
| In lieu of export duty on lumber.... | — | — | — | 150 | — | — | — | — | — | — | 150 |
| Totals, 1956..... | 1,569 | 657 | 2,057 | 1,679 | 3,301 | 3,641 | 1,820 | 2,072 | 2,195 | 1,281 | 20,272 |
| 1957 | | | | | | | | | | | |
| Allowance for governments..... | 180 | 100 | 190 | 190 | 240 | 240 | 220 | 220 | 220 | 220 | 2,020 |
| Allowance on basis of population..... | 289 | 87 | 514 | 413 | 2,933 | 3,259 | 680 | 705 | 899 | 932 | 10,711 |
| Interest on debt allowance..... | — | 39 | 53 | 26 | 128 | 142 | 382 | 405 | 405 | 29 | 1,609 |
| Special Grants— | | | | | | | | | | | |
| Additional Annual Subsidy— | | | | | | | | | | | |
| Statutes 1949, c. 1..... | 1,100 | — | — | — | — | — | — | — | — | — | 1,100 |
| Statutes 1942, c. 14..... | — | 275 | 1,300 | 900 | — | — | — | — | — | — | 2,475 |
| Statutes 1887, c. 8 and R.S. 1927, | | | | | | | | | | | |
| c. 12..... | — | 20 | — | — | — | — | — | — | — | — | 20 |
| Statutes 1912, c. 42..... | — | 100 | — | — | — | — | — | — | — | — | 100 |
| In lieu of public lands..... | — | 6 | — | — | — | — | 750 | 750 | 750 | 100 | 2,356 |
| In settlement of steamship services | | | | | | | | | | | |
| claims..... | — | 30 | — | — | — | — | — | — | — | — | 30 |
| In lieu of export duty on lumber.... | — | — | — | 150 | — | — | — | — | — | — | 150 |
| Totals, 1957..... | 1,569 | 657 | 2,057 | 1,679 | 3,301 | 3,641 | 2,032 | 2,080 | 2,274 | 1,281 | 20,571 |

Taxation Agreements.—Early in World War II, in order to provide revenue for heavy national expenditures and at the same time control inflationary tendencies, the provincial governments vacated the income and corporation tax fields in favour of the Federal Government for the duration of the War and a limited period thereafter, after agreeing to the terms of a tax rental fee from the Federal Government. These Agreements of 1942 were succeeded by Tax Rental Agreements 1952. Under the 1952 Agreements, all provinces except Ontario and Quebec agreed to lease their personal and corporation income taxes, special corporation taxes and succession duties to the Government of Canada in exchange for a rental fee. Ontario, which had not entered into the 1947 Agreements, also agreed to lease personal and corporation income taxes and special corporation taxes

but retained the right to levy succession duties. In 1952 the nine provinces received \$303,000,000 in tax rental fees compared with \$96,000,000 received by the eight provinces in 1951.

The Wartime Tax Agreements of 1942 are outlined in the 1946 Year Book, pp. 900-901. The 1947 and 1952 Tax Rental Agreements are outlined at pp. 1087-1090 of the 1954 edition.

With the 1952 Rental Agreements expiring at Mar. 31, 1957, conferences were held with the provinces in April and October 1955 and March 1956 to discuss new financial arrangements. At the October meeting the Federal Government put forward certain suggestions for discussion. These were revised and became part of the actual proposals made by letter on Jan. 6, 1956. Some further revisions in detail were made following a meeting with the provinces on Mar. 9, 1956, and the final proposals were incorporated in a Bill presented to Parliament in July 1956, entitled the Federal-Provincial Tax-Sharing Arrangements Act. This Act received Royal Assent on July 31, 1956.

The new proposals differ substantially in principle from those previously in effect, for, while provision is still made for tax rental agreements in the fields of individual and corporation income tax and succession duties, the rental fee payable is directly related to the return from these fields at agreed rates in the province concerned.

The fiscal aid subsidies which were formerly contained in the tax rental fees will now be separated from such fees and contained in specific payments called "tax equalization payments". These payments are to be used to bring the per capita yield from standard taxes in a province in a year up to the level of the two provinces for which the per capita standard taxes for that year are greatest.

The standard taxes involved are: (a) individual income tax at 10 p.c. of the Federal tax; (b) corporation income tax at 9 p.c. of corporation taxable income; and (c) succession duties at 50 p.c. of the federal duties averaged over a three-year period.

In addition, provincial revenue stabilization payments are provided which will support the payments to a province at a level determined by the greatest of: (a) the adjusted 1957 tax rental payment which is the amount payable in 1956-57 to any province whether under an agreement or not, adjusted for any population changes in the year in question; (b) the projected tax rental payment which is the amount that would be payable to any province in a year if the 1952 tax rental agreements were to be extended into the year in question; and (c) the basic stabilization amount which for 1958-59 is 95 p.c. of the amount of tax equalization payments, provincial revenue stabilization payments and current tax rental payments applicable to the province in 1957-58; and, for subsequent years, 95 p.c. of the average of such payments in the two previous years.

The tax equalization payments and the provincial revenue stabilization payments are payable to a province regardless of any action they may take in these tax fields. Tax rental payments are subject to agreement.

Rental agreements have been entered into with all provinces except Quebec and Ontario in all three tax fields. Ontario has rented the individual income tax to the Federal Government but levies its own corporation income and corporation taxes and succession duties. Quebec continues to levy all three taxes. Where a province levies its own taxes, there is a reduction of federal tax provided at the standard rate noted above.

Following a Dominion-Provincial Conference in November 1957, an interim measure covering the fiscal year commencing Apr. 1, 1958, was introduced in the House of Commons on Jan. 27, 1958, increasing from 10 p.c. to 13 p.c. that portion of the "standard individual income tax" which the ten provinces were entitled to receive under the Federal-Provincial Tax-Sharing Arrangements Act of 1956. Linked with the above was a second measure providing Atlantic adjustment grants of \$25,000,000 for each of four fiscal years and divided as follows: Nova Scotia, New Brunswick and Newfoundland each \$7,500,000, and Prince Edward Island \$2,500,000.

Subsection 5.—National Debt

A brief commentary dealing with the national debt of the Government of Canada from 1914 appears at p. 1091 of the 1954 Year Book. The following table summarizes the debt position during the period 1948-57 as to interest and amount outstanding. Details of unmatured debt and treasury bills outstanding and information on new security issues of the Federal Government may be found in the *Public Accounts of Canada*. They are summarized by standard classifications in DBS publication *Financial Statistics of the Government of Canada*.

19.—Summary of the Public Debt and Interest Payments Thereon, Years Ended Mar. 31, 1948-57

NOTE.—Statistics for 1867-1913 are given in the 1942 Year Book, p. 775; those for 1914-35 in the 1947 edition, p. 972; and those for 1936-47 in the 1951 edition, p. 1009.

| Year | Gross Debt | Net Active Assets | Net Debt | Net Debt Per Capita ¹ | Increase or Decrease of Net Debt During Year | Interest Paid on Debt | Interest Paid per Capita ² |
|------------|-----------------------------|----------------------------|----------------|----------------------------------|--|--------------------------|---------------------------------------|
| | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| 1948. | 17,197,348,981 | 4,825,712,088 | 12,371,636,893 | 964.80 | -676,119,656 | 455,455,204 | 36.29 |
| 1949. | 16,950,403,795 | 5,174,269,643 | 11,776,134,152 | 875.74 | -595,502,741 | 465,137,958 ³ | 36.27 |
| 1950. | 16,750,756,246 | 5,106,147,047 | 11,644,609,199 | 849.23 | -131,524,953 | 439,816,335 | 32.71 |
| 1951. | 16,923,307,028 | 5,489,992,080 | 11,433,314,948 | 816.14 | -211,294,251 | 425,217,500 | 31.01 |
| 1952. | 17,257,668,676 | 6,072,387,129 | 11,185,281,546 | 773.59 | -248,033,402 | 432,423,082 ⁴ | 30.87 |
| 1953. | 17,918,490,812 ⁵ | 6,756,756,543 ⁵ | 11,161,734,269 | 751.88 | -23,547,277 | 451,339,521 | 31.21 |
| 1954. | 17,923,189,502 ⁵ | 6,807,252,438 ⁵ | 11,115,937,064 | 727.15 | -45,797,205 | 476,061,625 | 32.07 |
| 1955. | 17,951,491,464 ⁵ | 6,688,411,310 ⁵ | 11,263,080,154 | 717.49 | 147,143,090 | 477,914,894 | 31.26 |
| 1956. | 19,124,232,779 ⁵ | 7,843,863,815 ⁵ | 11,280,368,964 | 701.47 | 17,288,810 | 492,624,067 | 31.38 |
| 1957. | 18,326,190,715 ⁵ | 7,318,539,557 ⁵ | 11,007,651,158 | 663.55 | -272,717,806 | 520,189,398 | 32.35 |

¹ Based on the official estimates of population for June 1 of the year indicated (see p. 119).

² Based on the official estimates of population for June 1 of the year immediately preceding the one indicated (see p. 119).

³ The apparent increase in interest paid results from the accrued interest on refundable taxes having been charged in the year of repayment.

⁴ Excludes \$87,510,068 adjustment required to place interest on public debt on accrued basis.

⁵ These figures are not strictly comparable with those for 1952 and previous years chiefly because of changed methods in accounting for cash.

Guaranteed Debt.—In addition to the direct debt of the Federal Government already dealt with, there are large indirect obligations arising mainly out of the guarantee of securities by the Federal Government of the railway lines that now form the Canadian National Railways and the subsequent extensions thereof. Since 1932, guarantees of certain bank loans have been made under the various Relief Acts, the National Housing Act, the Farm Improvement Loans Act, and the Veterans Business and Professional Loans Act. When the Bank of Canada commenced business on Mar. 11, 1935, the guarantee of the deposit required to be maintained in the Bank of Canada by every chartered bank came into force. This guarantee must be implemented "in the event of the property and assets of the Bank being insufficient to pay its liabilities and/or if the Bank suspends payment of any of its liabilities".

20.—Guaranteed Debt of the Government of Canada—Amounts Held by the Public as at Mar. 31, 1957

NOTE.—These contingent liabilities are expressed in Canadian dollars; stocks and bonds payable solely in Sterling are converted on the basis of £1=\$2.80, and United States dollars are considered at par with the Canadian dollar.

| Item | Amount of Guarantee Authorized | Amount Held by Public at Mar. 31, 1957 |
|---|--------------------------------------|--|
| | \$ | \$ |
| Railway Securities Guaranteed as to Principal and Interest— | | |
| Canadian National Ry. Co. 4½ p.c. gold bonds due 1957..... | 65,000,000 | 64,136,000 |
| Canadian Northern Ry. Co. 3½ p.c. debenture stock due 1958, £1,622,586/19/9... | 7,896,590 | 5,500,208 |
| Canadian National Ry. Co. 3 p.c. bonds due 1959..... | 35,000,000 | 35,000,000 |
| Canadian Northern Alberta Ry. Co. 3½ p.c. debenture stock due 1960, £647,260/5/6..... | 3,150,000 | 316,856 |
| Canadian Northern Ontario Ry. Co. 3½ p.c. debenture stock due 1961, £7,350,000/0/0..... | 35,770,000 | 2,069,805 |
| Grand Trunk Pacific Ry. Co. 3 p.c. bonds due 1962, £14,000,000/0/0..... | 68,040,000 | 26,465,130 |
| Canadian Northern Alberta Ry. Co. 3½ p.c. debenture stock due 1962, £733,561/12/10..... | 3,570,000 | — |
| Grand Trunk Pacific Ry. Co. 4 p.c. bonds due 1962, £3,280,000/0/0..... | 15,940,800 | 7,999,074 |
| Canadian National Ry. Co. 2½ p.c. bonds due 1963..... | 250,000,000 | 250,000,000 |
| Canadian National Ry. Co. 3 p.c. bonds due 1968..... | 35,000,000 | 35,000,000 |
| Canadian National Ry. Co. 2½ p.c. bonds due 1967..... | 50,000,000 | 50,000,000 |
| Canadian National Ry. Co. 2½ p.c. bonds due 1969..... | 70,000,000 | 70,000,000 |
| Canadian National Ry. Co. 2½ p.c. bonds due 1971..... | 40,000,000 | 40,000,000 |
| Canadian National Ry. Co. 3½ p.c. bonds due 1974..... | 200,000,000 | 200,000,000 |
| Canadian National Ry. Co. 2½ p.c. bonds due 1975..... | 6,000,000 | 6,000,000 |
| Railway Securities Guaranteed as to Interest Only— | | |
| Grand Trunk 5 p.c. perpetual debenture stock, £4,270,375/0/0..... | 20,782,492 | 51,190 |
| Grand Trunk 4 p.c. perpetual debenture stock, £24,624,455/0/0..... | 119,839,014 | 5,166 |
| Other Guarantees— | | |
| Province of Manitoba Treasury Bill..... | 250,000 | 250,000 |
| Deposits maintained by chartered banks in Bank of Canada..... | Unstated | 519,458,503 |
| Loans made by approved lending institutions under National Housing Acts prior to 1954 Act..... | Unstated | Indeterminate |
| Loans made by lenders under Part IV of the National Housing Act 1954 for home extensions and improvements..... | 10,000,000 | 2,815,000 ¹ |
| Guarantees to owners of returns from moderate-rental housing projects..... | Unstated | Indeterminate |
| Insured loans made by approved lenders under the National Housing Act 1954..... | 4,000,000,000 | 1,083,000,000 ² |
| Guarantees under Export Credits Insurance Act Part I..... | 100,000,000 | 61,011,947 |
| Guarantees under Export Credits Insurance Act Part II..... | 12,750,000 | 5,100,000 |
| Loans made by chartered banks under the Farm Improvement Loans Act..... | 58,952,089 | 35,309,765 |
| Loans made by chartered banks under the Veterans Business and Professional Loans Act..... | Indeterminate | 986,105 |
| Loans made by chartered banks under the Fisheries Improvement Loans Act..... | Indeterminate | 50,279 |
| Loans made by chartered banks under the Prairie Grain Producers' Interim Financing Act 1951..... | 5,000,000 | 238 |
| Loans made by chartered banks under the Prairie Grain Producers' Interim Financing Act 1956..... | Indeterminate | 465,594 |
| Loans made by chartered banks to Canadian Wheat Board..... | 150,000,000 | 64,437,942 |

¹ As at Dec. 31, 1956.

² As reported, in accordance with Sect. 45 National Housing Loans Regulations, by approved lenders for their respective fiscal year-ends between Oct. 31 and Dec. 31, 1956.

Section 3.—Provincial Public Finance

Provincial government accounting and reporting practices vary considerably so that certain adjustments to the *Public Accounts* figures are required in order to produce comparable statistics. For example, transactions relating to a specific function are sometimes excluded from ordinary account; therefore special or administrative funds of this nature have been added to provincial ordinary account in the tables of this Section.

Fiscal periods are as nearly coincident as possible in view of the variations in provincial fiscal year-ends prior to the 1951 fiscal year; as of 1952 the fiscal years of all provinces end on Mar. 31. Figures for Newfoundland are included from 1949, for Yukon Territory from 1950, and for the Northwest Territories from 1955.

Subsection 1.—Revenue and Expenditure of Provincial Governments

The figures of revenue and expenditure presented in this Subsection do not agree with those given in Tables 1 and 2, pp. 1087-1088, mainly because of differences in the methods used to compute net figures and because of the slightly different classification of items. Net general revenue as shown in Tables 21 and 22 is achieved by deducting from gross general (ordinary and capital) revenue (a) all institutional revenue, (b) revenue in the form of interest, premium, discount and exchange, (c) grants-in-aid and shared-cost contributions, and (d) all capital revenue. These revenues are then offset against the related functions of expenditure to arrive at net general (ordinary and capital) expenditure, shown in Tables 21 and 23.

The following statement gives some indication of the increase in the revenue collected and services rendered by the provincial governments in 1953 and 1955 compared with 1949, the year that Newfoundland entered Confederation.

| <i>Item</i> | <i>1949</i> | <i>1953</i> | <i>1955</i> |
|---|-------------|-------------|-------------|
| <i>(Millions of dollars)</i> | | | |
| NET GENERAL REVENUE— | | | |
| Taxes— | | | |
| Corporation income tax..... | 106 | 49 | 54 |
| Motor fuel and fuel oil tax..... | 139 | 224 | 269 |
| General sales tax..... | 62 | 108 | 149 |
| Other taxes..... | 111 | 126 | 193 |
| Federal Tax Rental Agreements..... | 80 | 309 | 320 |
| Privileges, Licences and Permits— | | | |
| Motor vehicle..... | 58 | 88 | 114 |
| Natural resources..... | 82 | 195 | 257 |
| Other..... | 38 | 48 | 51 |
| Liquor profits..... | 107 | 125 | 139 |
| Other..... | 58 | 64 | 68 |
| TOTALS, NET GENERAL REVENUE..... | 841 | 1,336 | 1,614 |
| NET GENERAL EXPENDITURE— | | | |
| Transportation and communications..... | 254 | 353 | 448 |
| Health and social welfare..... | 223 | 313 | 381 |
| Education..... | 160 | 234 | 333 |
| Debt charges (excluding debt retirement)..... | 52 | 53 | 55 |
| Other..... | 187 | 305 | 358 |
| TOTALS, NET GENERAL EXPENDITURE..... | 876 | 1,258 | 1,575 |

21.—Gross and Net Revenue and Expenditure of Provincial Governments, Years Ended Mar. 31, 1954-56

NOTE.—Figures are adjusted to achieve interprovincial comparability.

| Province or Territory | 1954 | 1955 | 1956 | 1954 | 1955 | 1956 |
|----------------------------|------------------------|-----------|-----------|----------------------------|-----------|-----------|
| | GROSS ORDINARY REVENUE | | | GROSS ORDINARY EXPENDITURE | | |
| | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Newfoundland..... | 35,632 | 37,865 | 39,106 | 33,481 | 37,430 | 40,838 |
| Prince Edward Island..... | 8,336 | 8,870 | 8,845 | 6,831 | 7,447 | 8,704 |
| Nova Scotia..... | 56,221 | 59,172 | 62,463 | 54,191 | 58,572 | 62,718 |
| New Brunswick..... | 56,657 | 57,142 | 59,245 | 57,528 | 58,328 | 60,575 |
| Quebec..... | 332,959 | 373,638 | 452,084 | 296,537 | 337,116 | 375,271 |
| Ontario..... | 402,384 | 436,331 | 472,067 | 409,903 | 444,954 | 508,184 |
| Manitoba..... | 67,166 | 69,111 | 72,015 | 59,464 | 57,328 | 61,497 |
| Saskatchewan..... | 106,491 | 110,002 | 114,316 | 86,379 | 95,761 | 102,511 |
| Alberta..... | 195,424 | 187,878 | 238,686 | 89,260 | 105,603 | 127,975 |
| British Columbia..... | 202,428 | 216,011 | 248,923 | 200,010 | 206,872 | 237,202 |
| Yukon Territory..... | 1,916 | 1,968 | 2,522 | 1,610 | 1,649 | 2,142 |
| Northwest Territories..... | .. | 746 | 967 | .. | 680 | 779 |
| Totals..... | 1,465,614 | 1,558,734 | 1,771,239 | 1,295,194 | 1,411,740 | 1,588,396 |

21.—Gross and Net Revenue and Expenditure of Provincial Governments, Years Ended Mar. 31, 1954-56—concluded

| Province or Territory | 1954 | 1955 | 1956 | 1954 | 1955 | 1956 |
|----------------------------|---------------------|------------------|------------------|--------------------------------------|------------------|------------------|
| | NET GENERAL REVENUE | | | NET GENERAL EXPENDITURE ¹ | | |
| | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Newfoundland..... | 31,641 | 32,851 | 33,534 | 32,802 | 39,086 | 42,419 |
| Prince Edward Island..... | 7,671 | 8,154 | 8,044 | 7,167 | 8,822 | 10,343 |
| Nova Scotia..... | 49,348 | 51,418 | 54,329 | 51,254 | 52,638 | 57,688 |
| New Brunswick..... | 49,220 | 50,788 | 52,783 | 47,813 | 50,990 | 54,451 |
| Quebec..... | 299,417 | 339,108 | 412,745 | 310,999 | 349,983 | 399,713 |
| Ontario..... | 370,897 | 399,058 | 431,802 | 384,215 | 420,999 | 488,932 |
| Manitoba..... | 55,822 | 56,706 | 59,349 | 46,702 | 48,552 | 51,940 |
| Saskatchewan..... | 98,415 | 99,651 | 102,702 | 85,783 | 96,145 | 100,781 |
| Alberta..... | 185,851 | 175,097 | 225,326 | 118,150 | 138,303 | 159,375 |
| British Columbia..... | 186,337 | 199,658 | 230,773 | 171,780 | 178,585 | 207,490 |
| Yukon Territory..... | 1,460 | 1,632 | 1,785 | 1,154 | 1,313 | 1,405 |
| Northwest Territories..... | .. | 707 | 916 | .. | 641 | 728 |
| Totals..... | 1,336,079 | 1,414,828 | 1,614,088 | 1,257,819 | 1,386,057 | 1,575,265 |

¹ Excludes debt retirement as follows: 1954, \$81,270,000; 1955, \$71,410,000; 1956, \$83,706,000.

22.—Details of Net General Revenue of Provincial Governments, Fiscal Years Ended Mar. 31, 1955 and 1956

| Source | 1955 | 1956 | Source | 1955 | 1956 |
|-----------------------------------|---------|---------|--------------------------------------|------------------|------------------|
| | \$'000 | \$'000 | | \$'000 | \$'000 |
| Taxes— | | | Other Governments— | | |
| Corporations..... | 16,306 | 19,601 | Government of Canada— | | |
| Income— | | | Share of income tax on electric | 7,294 | 7,947 |
| Corporations..... | 48,988 | 53,950 | power utilities..... | 24,358 | 23,421 |
| Individuals..... | 25,224 | 30,208 | Subsidies..... | | |
| Property..... | 7,217 | 7,375 | Totals, Government of Canada.. | 31,652 | 31,368 |
| Sales— | | | | | |
| Alcoholic beverages..... | 1,902 | 2,073 | Municipalities..... | 243 | 244 |
| Amusements and admissions.. | 22,371 | 20,675 | Totals, Other Governments..... | 31,895 | 31,612 |
| Motor fuel and fuel oil..... | 240,297 | 269,429 | | | |
| Tobacco..... | 13,667 | 15,022 | Government Enterprises and | | |
| General..... | 128,590 | 149,444 | Other Funds— | | |
| Other commodities and ser- | 4,643 | 4,994 | Liquor profits..... | 127,549 | 139,167 |
| vices..... | | | Other..... | 3,450 | 3,458 |
| Succession duties..... | 40,663 | 72,046 | | | |
| Other..... | 16,825 | 19,939 | Other revenue..... | 683 | 935 |
| Totals, Taxes..... | 566,693 | 664,756 | Totals, excluding Non-revenue | | |
| Federal Tax Rental Agreements... | 327,954 | 320,310 | and Surplus Receipts..... | 1,412,729 | 1,611,862 |
| Privileges, Licences and Permits— | | | Non-revenue and Surplus Re- | | |
| Liquor control and regulation... | 30,635 | 32,710 | ceipts— | | |
| Motor vehicle..... | 94,371 | 114,264 | Refund of previous years' ex- | | |
| Natural resources..... | 184,833 | 256,905 | penditure..... | 673 | 898 |
| Other..... | 17,421 | 18,256 | Repayment of advances credited | | |
| Totals, Privileges, Licences and | | | to revenue..... | 1,308 | 1,208 |
| Permits..... | 327,260 | 422,135 | Other..... | 118 | 120 |
| Sales and Services..... | 22,654 | 24,196 | Totals, Non-revenue and Surplus | | |
| Fines and Penalties..... | 4,591 | 5,293 | Receipts..... | 2,099 | 2,226 |
| | | | Totals, Net General Revenue.. | 1,414,828 | 1,614,088 |

23.—Details of Net General Expenditure of Provincial Governments, Fiscal Years Ended
Mar. 31, 1955 and 1956

| Function | 1955 | 1956 | Function | 1955 | 1956 |
|---|---------|---------|--|-----------|-----------|
| | \$'000 | \$'000 | | \$'000 | \$'000 |
| General Government— | | | Education—concluded | | |
| Executive and administrative... | 50,633 | 56,671 | Universities, colleges and other schools..... | 61,964 | 70,725 |
| Legislative..... | 4,631 | 7,654 | Education of the handicapped.... | 2,170 | 4,739 |
| Research, planning and statistics. | 526 | 596 | Superannuation and pensions.... | 8,072 | 11,625 |
| Other..... | — | — | Other..... | 8,200 | 8,305 |
| Totals, General Government.... | 55,790 | 64,921 | Totals, Education..... | 274,552 | 332,938 |
| Protection of Persons and Property— | | | Natural Resources and Primary Industries— | | |
| Law enforcement..... | 19,162 | 18,066 | Fish and game..... | 10,888 | 12,480 |
| Corrections..... | 18,818 | 20,247 | Forests..... | 32,295 | 39,992 |
| Police protection..... | 17,465 | 19,197 | Lands: settlement and agriculture | 46,054 | 49,302 |
| Other..... | 23,042 | 24,877 | Minerals and mines..... | 8,135 | 8,771 |
| Totals, Protection of Persons and Property..... | 78,487 | 82,387 | Water resources..... | 5,624 | 7,313 |
| Transportation and Communications— | | | Other..... | 3,676 | 4,291 |
| Highways, roads and bridges.... | 366,626 | 443,434 | Totals, Natural Resources and Primary Industries..... | 106,672 | 122,149 |
| Railways..... | 52 | 51 | Trade and Industrial Development | 7,772 | 8,060 |
| Telephone, telegraph and wireless | 25 | 24 | Local Government Planning and Development..... | 2,705 | 3,292 |
| Waterways..... | 4,621 | 4,307 | Debt Charges..... | 128,288 | 138,523 |
| Other..... | 15 | 172 | Contributions to Local Governments— | | |
| Totals, Transportation and Communications..... | 371,339 | 447,988 | Shared-revenue contributions.... | 15,001 | 10,031 |
| Health and Social Welfare— | | | Subsidies..... | 21,054 | 25,702 |
| Health— | | | Other..... | 617 | 837 |
| General..... | 4,928 | 5,226 | Totals, Contributions to Local Governments..... | 36,672 | 36,570 |
| Public health..... | 15,357 | 18,375 | Contributions to Government Enterprises..... | 9,414 | 10,108 |
| Medical, dental and allied services..... | 8,265 | 9,044 | Other Expenditure..... | 8,891 | 12,977 |
| Hospital care..... | 206,351 | 214,257 | Totals, excluding Non-expense and Surplus Payments..... | 1,448,182 | 1,652,557 |
| Totals, Health..... | 234,901 | 246,902 | Non-expense and Surplus Payments— | | |
| Social Welfare— | | | Advances charged to revenue.... | 2,975 | 1,066 |
| Aid to aged persons..... | 40,165 | 42,801 | Refunds of previous years' revenue..... | 4,079 | 164 |
| Aid to blind persons..... | 1,730 | 1,724 | Other..... | 2,231 | 5,184 |
| Aid to unemployed employables and unemployables.... | 19,586 | 22,057 | Totals, Non-expense and Surplus Payments..... | 9,285 | 6,414 |
| Mothers' allowances..... | 23,004 | 22,717 | Totals, Net General Expenditure..... | 1,457,467 | 1,658,971 |
| Child welfare..... | 17,168 | 18,150 | Less Debt Retirement included above..... | 71,410 | 83,706 |
| Labour..... | 3,156 | 3,403 | Totals, Net General Expenditure (excluding debt retirement)..... | 1,386,057 | 1,575,265 |
| Other..... | 18,817 | 23,079 | | | |
| Totals, Social Welfare..... | 123,626 | 133,931 | | | |
| Totals, Health and Social Welfare..... | 358,527 | 380,833 | | | |
| Recreational and Cultural Services. | 9,073 | 11,811 | | | |
| Education— | | | | | |
| Schools operated by local authorities..... | 194,146 | 237,544 | | | |

Subsection 2.—Debt of Provincial Governments

Table 24 reveals a steady increase in total bonded debt despite the decreases registered in Quebec, Alberta and British Columbia in the later years. Table 25 shows that the majority of bond issues are payable in Canada only (66 p.c. in 1952, increasing to 67 p.c. in 1956) and that the portion payable in New York only increased from 12 p.c. in 1952 to 18 p.c. in 1956. Tables 26 and 27 provide details of total direct and indirect debt of provincial governments as at Mar. 31, 1955 and 1956.

24.—Gross Bonded Debt (exclusive of Treasury Bills) of Provincial Governments as at Mar. 31, 1952-55

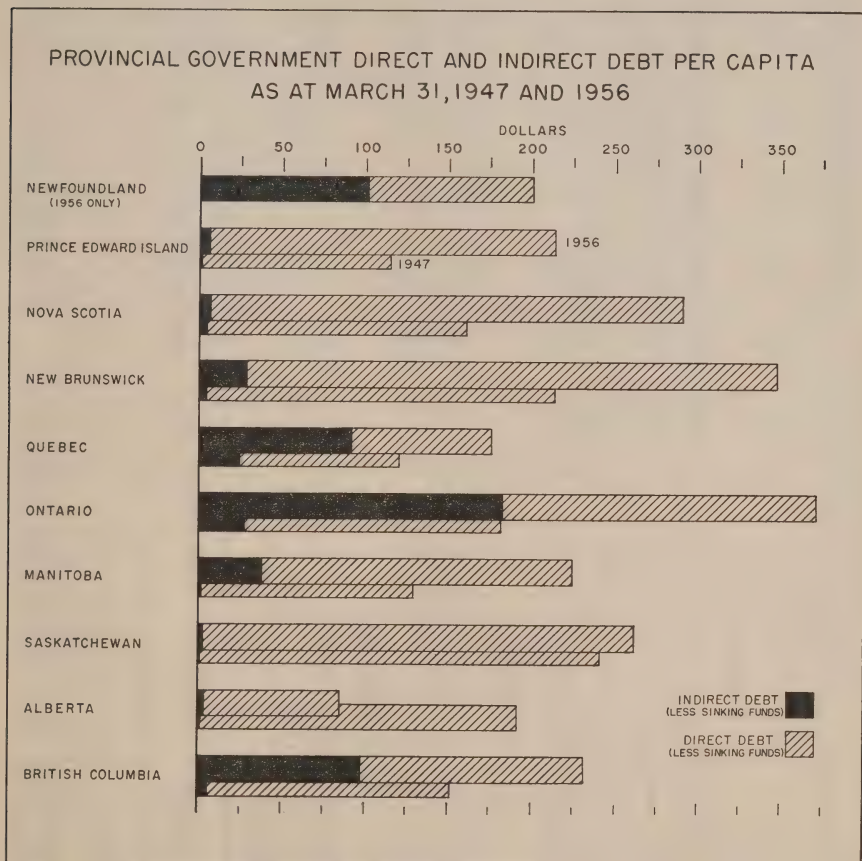
| Year | Bonded Debt | Average Coupon Rate | Average Term of Issue | Year | Bonded Debt | Average Coupon Rate | Average Term of Issue |
|-----------------------|------------------------|---------------------|-----------------------|-------------------|------------------------|---------------------|-----------------------|
| | \$'000 | p.c. | yrs. | | \$'000 | p.c. | yrs. |
| Newfoundland— | | | | Ontario—concluded | | | |
| 1952..... | 15,000 | 4.27 | 14.0 | 1954..... | 979,419 ¹ | 3.59 | 22.2 |
| 1953..... | 15,000 | 4.27 | 14.0 | 1955..... | 1,021,237 ¹ | 3.57 | 21.6 |
| 1954..... | 27,000 | 4.15 | 16.7 | Manitoba— | | | |
| 1955..... | 43,000 | 3.72 | 18.3 | 1952..... | 154,149 | 3.74 | 18.2 |
| Prince Edward Island— | | | | 1953..... | 161,750 | 3.77 | 18.0 |
| 1952..... | 18,998 | 3.30 | 12.5 | 1954..... | 172,560 | 3.71 | 17.9 |
| 1953..... | 19,850 | 3.33 | 12.2 | 1955..... | 179,300 | 3.66 | 18.2 |
| 1954..... | 18,650 | 3.24 | 12.6 | Saskatchewan— | | | |
| 1955..... | 19,350 | 3.29 | 12.7 | 1952..... | 145,351 | 3.88 | 19.8 |
| Nova Scotia— | | | | 1953..... | 164,293 | 3.91 | 20.0 |
| 1952..... | 190,871 | 3.35 | 17.0 | 1954..... | 177,337 | 3.76 | 19.4 |
| 1953..... | 203,496 | 3.45 | 17.1 | 1955..... | 204,566 | 3.68 | 19.0 |
| 1954..... | 208,011 | 3.47 | 17.5 | Alberta— | | | |
| 1955..... | 220,636 | 3.49 | 18.2 | 1952..... | 83,693 | 2.87 | 15.5 |
| New Brunswick— | | | | 1953..... | 81,043 | 2.87 | 15.7 |
| 1952..... | 198,366 ¹ | 3.71 | 17.4 | 1954..... | 78,320 | 2.87 | 16.0 |
| 1953..... | 202,019 | 3.78 | 17.8 | 1955..... | 75,517 | 2.86 | 16.2 |
| 1954..... | 207,655 | 3.65 | 17.6 | British Columbia— | | | |
| 1955..... | 217,237 | 3.64 | 17.7 | 1952..... | 235,528 | 3.41 | 20.7 |
| Quebec— | | | | 1953..... | 222,129 | 3.37 | 20.8 |
| 1952..... | 461,510 ¹ | 3.22 | 17.0 | 1954..... | 206,174 | 3.31 | 21.0 |
| 1953..... | 479,033 ¹ | 3.37 | 17.1 | 1955..... | 192,572 | 3.30 | 21.8 |
| 1954..... | 477,083 ¹ | 3.28 | 16.7 | Totals— | | | |
| 1955..... | 467,558 ¹ | 3.29 | 17.3 | 1952..... | 2,371,033 ¹ | 3.47 | 19.5 |
| Ontario— | | | | 1953..... | 2,560,844 ¹ | 3.53 | 19.5 |
| 1952..... | 867,567 ¹ | 3.53 | 22.4 | 1954..... | 2,552,209 ¹ | 3.50 | 19.5 |
| 1953..... | 1,012,231 ¹ | 3.56 | 21.9 | 1955..... | 2,640,973 ¹ | 3.50 | 19.5 |

¹ Excludes bonds assumed by the province.

25.—Gross Bonded Debt (exclusive of Treasury Bills) of Provincial Governments by Currency of Payments as at Mar. 31, 1952-56

| Payable in— | 1952 | 1953 | 1954 | 1955 | 1956 |
|-----------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|
| | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Canada..... | 1,450,160 | 1,522,623 | 1,623,245 | 1,683,017 | 1,766,728 |
| London (England)..... | 16,643 | 16,643 | 9,587 | 9,587 | 9,587 |
| London and Canada..... | 3,499 | 3,499 | 2,974 | 2,974 | 2,974 |
| New York (U.S.A.)..... | 265,025 | 358,255 | 472,973 | 452,825 | 483,325 |
| New York and Canada..... | 296,047 | 297,243 | 284,614 | 241,804 | 221,964 |
| London, New York, and Canada..... | 177,945 | 172,770 | 167,451 | 162,002 | 156,395 |
| Totals..... | 2,209,319¹ | 2,371,033¹ | 2,560,844¹ | 2,552,209¹ | 2,640,973¹ |

¹ Excludes bonds assumed by the provinces.



26.—Provincial Government Direct and Indirect Debt (less Sinking Funds) as at Mar. 31, 1955

| Direct and Indirect Debt | | | | | | | | | | | | | Total |
|--|---------------------|--------------------|---------|----------------------|----------------------|---------------------|---------|--------|---------|--------|-----------|-----------|-------|
| Nfld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Yukon | | | |
| \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | |
| Direct Debt | | | | | | | | | | | | | |
| Funded Debt— | | | | | | | | | | | | | |
| Bonded debt..... | 18,650 ¹ | 208,011 | 207,655 | 477,133 ² | 980,319 ³ | 172,560 | 177,337 | 78,320 | 206,174 | — | — | 2,553,159 | |
| Less sinking funds..... | 3,776 | 26,088 | 42,515 | 103,388 | 130,218 | 40,173 | 23,491 | — | 56,784 | — | — | 428,734 | |
| Net bonded debt..... | 14,874 | 181,923 | 165,140 | 373,745 | 850,101 | 132,387 | 153,846 | 78,320 | 149,390 | — | — | 2,124,425 | |
| Treasury bills ³ | — | — | — | — | — | 15,682 | 29,166 | 10,364 | 20,531 | — | — | 75,743 | |
| Net Funded Debt..... | 14,874 | 181,923 | 165,140 | 373,745 | 850,101 | 148,069 | 183,012 | 88,684 | 169,921 | — | — | 2,200,168 | |
| Short-term treasury bills ⁴ | — | — | — | — | — | 3,350 | 1,500 | — | — | — | — | 4,850 | |
| Savings deposits and certificates..... | 12 | 1,846 ⁵ | — | — | — | — | 97 | 250 | — | — | — | 2,205 | |
| Temporary loans and overdrafts..... | 807 | 1,074 | — | — | 28,355 | — | — | — | — | — | — | 30,236 | |
| Accounts and Other Payables— | | | | | | | | | | | | | |
| Trust funds and other deposits..... | 3 | 65 | 2,187 | 318 | 9,712 | 43,229 | 2,079 | — | 10,003 | 71 | 67,812 | | |
| Other..... | 808 | 87 | 2,646 | 3,490 | 20,557 | 72,165 ⁶ | 1,105 | 6,888 | 12,915 | 50 | 123,028 | | |
| Accrued interest and other accrued expenditure..... | 206 | 162 | 2,019 | 3,412 | 4,108 | 10,803 | 3,580 | 1,631 | 15 | 1,915 | — | 27,851 | |
| Totals, Direct Debt (less Sinking Funds)..... | 26,535 | 18,108 | 188,775 | 172,360 | 408,122 | 158,183 | 188,602 | 95,837 | 194,754 | 121 | 2,456,150 | | |
| Indirect Debt | | | | | | | | | | | | | |
| Guaranteed bonds or debentures..... | 9,662 | 579 | 1,315 | 8,464 | 381,695 | 936,508 | 27,277 | — | 1 | 93,164 | — | 1,458,665 | |
| Less sinking funds..... | — | — | 149 | 297 | — | 7,398 | — | — | — | 3,367 | — | 11,211 | |
| Net guaranteed bonds or debentures..... | 9,662 | 579 | 1,166 | 8,167 | 381,695 | 929,110 | 27,277 | — | — | 89,797 | — | 1,447,454 | |
| Guaranteed bank loans..... | 4,001 | 109 | 3,941 | 2,369 | 2,000 | 5,285 | 3,181 | 3,511 | 8,250 | 32,647 | — | | |
| Municipal improvement assistance act loans..... | — | 3 | 373 | 205 | 1,162 | — | 273 | 276 | 785 | 3,127 | — | | |
| Other guarantees..... | 28,152 ⁷ | — | — | — | — | — | 46 | — | — | — | — | 28,198 | |
| Totals, Indirect Debt (less Sinking Funds)..... | 41,815 | 691 | 5,480 | 10,741 | 384,857 | 934,395 | 3,500 | 3,788 | 98,832 | — | — | 1,511,426 | |
| Totals, Direct and Indirect Debt (less Sinking Funds)..... | 68,350 | 18,799 | 194,255 | 183,101 | 792,979 | 1,939,148 | 192,102 | 99,625 | 293,586 | 121 | 3,967,576 | | |
| Direct debt (less sinking funds) per capita ⁸ | 64.41 | 167.67 | 276.39 | 308.89 | 90.29 | 193.86 | 212.15 | 89.90 | 149.24 | 1.21 | 157.44 | | |
| Indirect debt (less sinking funds) per capita ⁸ | 101.49 | 6.40 | 8.02 | 19.25 | 85.15 | 180.28 | 3.94 | 3.55 | 75.73 | — | 96.88 | | |

¹ Includes \$50,000 bonds issued by the Provincial Sanatorium Commission.² Includes bonds assumed: Que. \$50,000; Ont. \$900,000.³ Having a term of two or more years.⁴ Includes trust deposits not separable from personal savings deposits.⁵ Having a term of less than two years.⁶ Includes \$71,536,000 net liability of the province *re* Province of Ontario Savings Office.⁷ Deposits in the Newfoundland Savings Bank.⁸ Based on estimated population as at June 1, 1955 (see p. 119).

27.—Provincial Government Direct and Indirect Debt (less Sinking Funds) as at Mar. 31, 1956

| Direct and Indirect Debt | | Nfld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Yukon | Total |
|---|---------------------|---------------------|----------------|----------------|----------------------|------------------------|----------------|----------------|---------------|----------------|------------|------------|------------------|
| | | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Direct Debt | | | | | | | | | | | | | |
| Funded Debt— | | | | | | | | | | | | | |
| Bonded debt..... | 43,000 | 19,350 ¹ | 220,636 | 217,237 | 467,608 ² | 1,022,137 ² | 179,300 | 204,566 | 75,517 | 192,572 | — | — | 2,641,923 |
| Less sinking funds..... | 3,166 | 4,202 | 31,353 | 47,677 | 110,933 | 152,816 | 45,003 | 18,851 | — | 56,455 | — | — | 470,456 |
| Net bonded debt..... | 39,834 | 15,148 | 189,283 | 169,560 | 356,675 | 869,321 | 134,297 | 185,715 | 75,517 | 136,117 | — | — | 2,171,467 |
| Treasury bills ³ | — | — | — | — | — | — | 15,129 | 27,301 | 9,985 | 20,089 | — | — | 72,504 |
| Net Funded Debt..... | 39,834 | 15,148 | 189,283 | 169,560 | 356,675 | 869,321 | 149,426 | 213,016 | 85,502 | 156,206 | — | — | 2,243,971 |
| Short-term treasury bills ⁴ | — | 1,764 ⁵ | — | 1,000 | — | — | 2,400 | 10,946 | — | 100 | — | — | 14,446 |
| Savings deposits and certificates..... | — | 3,078 | — | 562 | — | — | — | 154 | — | 138 | — | — | 2,068 |
| Temporary loans and overdrafts..... | — | — | — | — | — | — | — | — | — | — | — | — | 17,578 |
| Accounts and other payables— | | | | | | | | | | | | | |
| Trust funds and other deposits..... | — | 186 | 1,964 | 546 | 11,272 | 50,052 | 2,478 | 339 | — | — | 13,149 | 64 | 80,050 |
| Other..... | 775 | 70 | 3,231 | 2,884 | 20,338 | 79,815 ⁶ | 960 | 2,502 | 7,010 | 13,912 | — | 827 | 132,314 |
| Accrued interest and other accrued expenditure..... | 206 | 155 | 2,128 | 2,906 | 4,341 | 10,785 | 3,702 | 1,879 | 421 | 1,779 | — | — | 28,302 |
| Totals, Direct Debt (less Sinking Funds)..... | 40,827 | 20,401 | 196,606 | 177,458 | 392,616 | 1,023,911 | 155,966 | 223,836 | 93,071 | 185,146 | — | 891 | 2,518,729 |
| Indirect Debt | | | | | | | | | | | | | |
| Guaranteed bonds or debentures..... | 8,294 | 675 | 1,454 | 8,143 | 421,431 | 999,749 | 32,518 | — | — | 117,257 | — | — | 1,589,522 |
| Less sinking funds..... | — | — | 158 | 305 | — | 10,859 | — | — | — | 4,933 | — | — | 16,235 |
| Net guaranteed bonds or debentures..... | 8,294 | 675 | 1,296 | 7,838 | 421,431 | 32,518 | 988,910 | — | — | 112,324 | — | — | 1,573,287 |
| Guaranteed bank loans..... | 5,240 | 12 | 3,446 | 8,039 | 986 | 1,375 | — | 2,216 | 3,108 | 25,117 | — | — | 49,539 |
| Municipal improvement assistance act loans..... | — | 3 | 351 | 188 | 1,112 | — | — | 246 | 245 | 682 | — | — | 2,867 |
| Other guarantees..... | 28,637 ⁷ | — | — | — | — | — | — | — | — | — | — | — | 28,637 |
| Totals, Indirect Debt (less Sinking Funds)..... | 42,171 | 690 | 5,093 | 16,065 | 423,529 | 990,285 | 32,553 | 2,462 | 3,354 | 138,123 | — | — | 1,654,330 |
| Totals, Direct and Indirect Debt (less Sinking Funds)..... | 82,998 | 21,091 | 201,699 | 193,523 | 816,145 | 2,014,196 | 191,524 | 231,298 | 96,425 | 323,269 | 891 | 891 | 4,173,059 |
| Direct debt (less sinking funds) per capita ⁸ | 98.38 | 206.07 | 282.89 | 319.74 | 84.83 | 189.44 | 187.02 | 259.75 | 82.88 | 132.84 | — | 74.25 | 156.63 |
| Indirect debt (less sinking funds) per capita ⁸ | 101.62 | 6.97 | 7.33 | 28.95 | 91.51 | 183.22 | 38.30 | 2.79 | 2.99 | 98.73 | — | — | 102.87 |

¹ Includes \$50,000 bonds issued by the Provincial Sanatorium Commission.
² Includes bonds assumed; Que. \$50,000; Ont. \$900,000.
³ Includes \$79,239,000 net liability of the province re Province of Ontario Savings Office.
⁴ Having a term of less than two years.
⁵ Includes \$79,239,000 net liability of the province re Province of Ontario Savings Office.
⁶ Deposits in the Newfoundland Savings Bank.
⁷ Based on estimated population as at June 1, 1956 (see p. 119).
⁸ Having a term of two or more years.

Section 4.—Municipal Public Finance

Subsection 1.—Municipal Assessed Valuations

Because of the lack of integrated municipal assessment systems and uniform standards for establishing values, the figures in Table 28 are not entirely comparable on an inter-provincial basis. The provinces operate under their own assessment laws which are not at all similar. Although considerable progress has been made in recent years towards uniformity and improved procedure, there is still a variation in methods, schedules and rates, not only between provinces but also between municipalities within the same province.

28.—Municipal Assessed Valuations by Province 1951-55

| Province and Year | Taxable Valuations on which Taxes were Levied | | | | | Total Exemptions ² |
|---------------------------------------|---|-------------------|-------------|--------------------|---------------|-------------------------------|
| | Real Property | Personal Property | Business | Other ¹ | Total | |
| | \$ | \$ | \$ | \$ | \$ | \$ |
| Newfoundland³ | .. | .. | .. | .. | .. | .. |
| P. E. Island—⁴ | | | | | | |
| 1951..... | 23,539,274 | 9,650,989 | .. | .. | 33,190,263 | 9,585,500 |
| 1952..... | 25,767,825 | 9,822,300 | .. | .. | 35,590,125 | 9,595,500 |
| 1953..... | 25,340,017 | 10,832,041 | .. | .. | 36,172,058 | 9,424,200 |
| 1954..... | 26,360,725 | 9,075,975 | 2,740,000 | .. | 38,176,700 | 9,954,200 |
| 1955..... | 27,926,350 | 7,717,375 | 2,618,500 | .. | 38,262,225 | 9,601,700 |
| Nova Scotia— | | | | | | |
| 1951..... | 223,083,830 | 49,077,698 | 13,704,315 | 4,582,280 | 290,448,123 | 121,862,179 |
| 1952..... | 240,575,423 | 55,167,734 | 14,315,320 | 4,745,615 | 314,804,092 | 135,475,897 |
| 1953..... | 253,698,529 | 60,127,611 | 14,499,605 | 4,983,895 | 333,309,640 | 143,777,931 |
| 1954..... | 271,199,091 | 63,701,457 | 14,908,191 | 5,281,870 | 355,090,609 | 157,235,737 |
| 1955..... | 302,684,165 | 64,891,147 | 15,386,810 | 5,610,133 | 388,572,255 | 166,253,855 |
| New Brunswick— | | | | | | |
| 1951..... | 277,823,120 ⁵ | 57,940,014 | 20,084,431 | 5,549,813 | 361,397,378 | .. |
| 1952..... | 304,672,416 ⁵ | 66,139,670 | 18,448,868 | 7,792,704 | 397,053,658 | .. |
| 1953..... | 308,956,073 ⁵ | 71,464,255 | 20,959,848 | 6,382,674 | 407,762,850 | .. |
| 1954..... | 318,433,006 | 76,626,530 | 21,159,426 | 6,760,076 | 422,979,038 | .. |
| 1955..... | 331,987,466 | 80,409,931 | 21,473,469 | 5,559,577 | 439,430,443 | .. |
| Quebec— | | | | | | |
| 1951..... | 3,667,164,730 | ... | .. | — | 3,667,164,730 | 1,020,186,968 |
| 1952..... | 3,868,454,172 | ... | .. | — | 3,868,454,172 | 1,110,220,252 |
| 1953..... | 4,090,775,764 | ... | .. | — | 4,090,775,764 | 1,194,152,084 |
| 1954..... | 4,726,504,000 | ... | .. | — | 4,726,504,000 | 1,273,290,000 |
| 1955..... | .. | ... | .. | .. | .. | .. |
| Ontario— | | | | | | |
| 1951..... | 3,883,874,441 | ... | 526,167,093 | — | 4,410,041,534 | 873,847,077 |
| 1952..... | 4,253,111,819 | ... | 520,867,384 | — | 4,773,979,203 | 913,310,338 |
| 1953..... | 4,474,083,569 | ... | 569,507,055 | — | 5,043,590,624 | 952,468,395 |
| 1954..... | 5,434,371,824 | ... | 664,790,110 | — | 6,099,161,934 | 1,127,540,653 |
| 1955..... | 5,841,744,380 | ... | 725,727,912 | — | 6,567,472,292 | 1,156,729,940 |
| Manitoba— | | | | | | |
| 1951..... | 588,596,298 | 6,841,122 | 25,064,239 | — | 620,501,659 | 156,258,385 |
| 1952..... | 615,894,060 | 6,513,999 | 27,614,244 | — | 650,022,303 | 154,354,005 |
| 1953..... | 643,648,796 | 6,903,165 | 29,787,151 | — | 680,339,112 | 155,561,511 |
| 1954..... | 671,876,270 | 6,085,215 | 29,051,952 | — | 707,013,437 | 116,780,527 ⁶ |
| 1955..... | 732,018,185 | 7,791,139 | 30,483,497 | — | 770,292,821 | 130,516,718 ⁶ |
| Saskatchewan— | | | | | | |
| 1951..... | 881,911,929 | ... | 46,341,360 | 61,320 | 928,314,609 | 477,649,877 |
| 1952..... | 894,296,222 | ... | 46,957,456 | 27,100 | 941,280,778 | 491,314,850 |
| 1953..... | 916,097,534 | ... | 48,291,955 | 13,470 | 964,402,959 | 496,281,834 |
| 1954..... | 938,321,680 | ... | 49,150,958 | 26,540 | 987,499,178 | 515,084,849 |
| 1955..... | 963,424,877 | ... | 49,896,190 | 15,940 | 1,013,337,007 | 525,436,711 |

For footnotes, see end of table.

28.—Municipal Assessed Valuations by Province 1951-55—concluded

| Province and Year | Taxable Valuations on which Taxes were Levied | | | | | Total Exemptions ² |
|--------------------------|---|-------------------|------------|--------------------|---------------|-------------------------------|
| | Real Property | Personal Property | Business | Other ¹ | Total | |
| | \$ | \$ | \$ | \$ | \$ | \$ |
| Alberta— | | | | | | |
| 1951..... | 803,411,739 | 47,376,105 | 29,033,624 | — | 879,821,468 | 91,290,874 |
| 1952..... | 895,586,606 | 58,114,430 | 33,790,852 | — | 987,491,888 | 106,461,418 |
| 1953..... | 926,516,030 | 61,890,088 | 39,137,993 | — | 1,027,544,111 | 117,878,447 |
| 1954..... | 1,063,331,344 | 44,209,858 | 45,464,240 | — | 1,153,005,442 | 131,683,771 |
| 1955..... | 1,147,348,403 | 46,165,518 | 50,565,691 | — | 1,244,079,612 | 175,427,183 |
| British Columbia— | | | | | | |
| 1951..... | 658,828,264 | ... | .. | — | 658,828,264 | 249,473,826 |
| 1952..... | 712,927,512 | ... | .. | — | 712,927,512 | 266,362,640 |
| 1953..... | 771,129,623 | ... | .. | — | 771,129,623 | 289,534,414 |
| 1954..... | 842,093,330 | ... | .. | — | 842,093,330 | 304,157,254 |
| 1955..... | 1,044,040,275 | ... | .. | — | 1,044,040,275 | 356,786,750 |

¹ Includes the following: N.S.—household tax, Halifax; N.B.—occupancy tax, Fredericton, and rentals tax, Moncton; Sask.—special franchise. ² Total of valuations assessed but exempt from taxation. Excludes exempt property not assessed. ³ Taxes are levied on rental values in some municipalities using a property base. ⁴ Includes estimated values for some municipalities; total exemptions are incomplete. ⁵ Includes personal property tax for local improvement districts and commissions, not separable. ⁶ Excludes rural municipalities; information not available.

Subsection 2.—Municipal Taxation

Table 29 shows the local taxes levied by municipalities and by some school authorities in the years 1951-55 and the total taxes outstanding at the end of those years.

29.—Municipal Taxation by Province 1951-55

| Province and Year | Tax Levy | Tax Collections, Current and Arrears | | Taxes Receivable, Current and Arrears | Property Acquired for Taxes | Total Taxes Receivable and Property Acquired for Taxes | |
|------------------------------|------------|--------------------------------------|--------------|---------------------------------------|-----------------------------|--|--------------|
| | | Total | P.C. of Levy | | | Total | P.C. of Levy |
| | \$ | \$ | | \$ | \$ | \$ | |
| Newfoundland— | | | | | | | |
| 1951..... | 1,453,917 | 1,347,540 | 92.7 | 404,946 | ... | 404,946 | 27.9 |
| 1952..... | 1,767,602 | 1,630,887 | 92.3 | 515,489 | ... | 515,489 | 29.2 |
| 1953..... | 1,942,294 | 1,938,436 | 99.8 | 593,116 | ... | 593,116 | 30.5 |
| 1954..... | 2,050,450 | 1,967,191 | 95.9 | 849,329 | ... | 849,329 | 41.4 |
| 1955..... | 2,318,727 | .. | .. | 966,734 | ... | 966,734 | 41.7 |
| Prince Edward Island— | | | | | | | |
| 1951..... | 1,073,484 | 997,612 | 92.9 | 288,833 | .. | 288,833 | 26.9 |
| 1952..... | 1,348,642 | 1,238,427 | 91.8 | 351,642 | .. | 351,642 | 26.1 |
| 1953..... | 1,409,941 | 1,277,892 | 90.6 | 361,961 | .. | 361,961 | 25.7 |
| 1954..... | 1,534,079 | 1,412,203 | 92.1 | 411,148 | .. | 411,148 | 26.8 |
| 1955..... | 1,717,709 | 1,582,313 | 92.1 | 468,634 | .. | 468,634 | 27.3 |
| Nova Scotia— | | | | | | | |
| 1951..... | 16,531,193 | 15,899,368 | 96.2 | 4,702,645 | 175,781 | 4,878,426 | 29.5 |
| 1952..... | 19,250,594 | 18,837,622 | 97.9 | 4,917,966 | 169,157 | 5,087,123 | 26.4 |
| 1953..... | 20,122,459 | 19,345,162 | 96.1 | 5,575,087 | 169,837 | 5,744,924 | 28.5 |
| 1954..... | 21,468,273 | 21,130,777 | 98.4 | 5,909,465 | 156,616 | 6,066,081 | 28.3 |
| 1955..... | 22,666,638 | 22,056,911 | 97.3 | 6,320,917 | 161,492 | 6,482,409 | 28.6 |
| New Brunswick— | | | | | | | |
| 1951..... | 12,579,650 | 12,116,729 | 96.3 | 4,207,475 | 89,148 | 4,296,623 | 34.2 |
| 1952..... | 15,181,021 | 14,143,016 | 93.2 | 4,416,044 | 74,435 | 4,490,479 | 29.6 |
| 1953..... | 17,106,221 | 15,501,974 | 90.6 | 5,518,178 | 66,083 | 5,584,261 | 32.6 |
| 1954..... | 18,023,827 | 17,370,430 | 96.4 | 6,133,302 | 69,742 | 6,203,044 | 34.4 |
| 1955..... | 19,143,691 | 18,362,635 | 95.9 | 6,899,848 | 84,505 | 6,984,353 | 36.5 |

29.—Municipal Taxation by Province 1951-55—concluded

| Province and Year | Tax Levy | Tax Collections, Current and Arrears | | Taxes Receivable, Current and Arrears | Property Acquired for Taxes | Total Taxes Receivable and Property Acquired for Taxes | |
|----------------------------------|-------------|--------------------------------------|--------------|---------------------------------------|-----------------------------|--|--------------|
| | | Total | P.C. of Levy | | | Total | P.C. of Levy |
| | \$ | \$ | | \$ | \$ | \$ | |
| Quebec— | | | | | | | |
| 1951..... | 143,689,638 | .. | .. | 23,091,184 | 3,554,166 | 26,645,350 | 18.5 |
| 1952..... | 159,005,705 | .. | .. | 20,976,477 | 2,806,924 | 23,783,401 | 15.0 |
| 1953..... | 173,944,681 | .. | .. | 23,439,993 | 2,386,282 | 25,826,275 | 14.8 |
| 1954..... | 196,500,000 | .. | .. | .. | .. | .. | .. |
| 1955..... | .. | .. | .. | .. | .. | .. | .. |
| Ontario— | | | | | | | |
| 1951..... | 228,919,382 | 221,230,840 | 96.6 | 21,948,812 | 4,678,915 | 26,627,727 | 11.6 |
| 1952..... | 263,196,643 | 259,438,790 | 98.6 | 24,764,795 | 4,459,226 | 29,224,021 | 11.1 |
| 1953..... | 283,132,586 | 279,738,359 | 98.8 | 27,289,109 | 3,881,638 | 31,170,747 | 11.0 |
| 1954..... | 309,416,966 | 302,866,691 | 97.9 | 32,767,740 | 3,486,079 | 36,253,819 | 11.7 |
| 1955..... | 339,691,118 | 335,933,305 | 98.9 | 35,873,937 | 3,302,191 | 39,176,128 | 11.5 |
| Manitoba— | | | | | | | |
| 1951..... | 36,415,815 | 34,735,950 | 95.4 | 7,995,116 | 3,584,765 | 11,579,881 | 31.8 |
| 1952..... | 39,280,255 | 37,398,604 | 95.2 | 8,908,189 | 3,247,678 | 12,155,867 | 30.9 |
| 1953..... | 40,669,833 | 38,464,628 | 94.6 | 10,415,741 | 3,017,461 | 13,433,202 | 33.0 |
| 1954..... | 43,499,288 | 40,677,542 | 93.5 | 9,119,269 | 2,904,701 | 12,023,970 | 27.6 |
| 1955..... | 46,487,706 | 44,419,338 | 95.6 | 10,461,142 | 2,771,769 | 13,232,911 | 28.5 |
| Saskatchewan—¹ | | | | | | | |
| 1951..... | 39,591,746 | 37,655,710 | 95.1 | 12,937,436 | 8,497,767 | 21,435,203 | 54.1 |
| 1952..... | 43,067,367 | 43,218,103 | 100.3 | 11,369,397 | 7,565,541 | 18,934,938 | 44.0 |
| 1953..... | 49,041,219 | 47,162,730 | 96.2 | 11,521,577 | 7,005,869 | 18,527,446 | 37.8 |
| 1954..... | 53,875,358 | 46,876,949 | 87.0 | 16,958,545 | 6,723,851 | 23,682,396 | 43.9 |
| 1955..... | 56,999,901 | 52,154,909 | 91.5 | 22,037,949 | 6,714,365 | 28,752,314 | 50.4 |
| Alberta— | | | | | | | |
| 1951..... | 46,065,178 | 44,066,024 | 95.7 | 13,022,860 | 10,356,788 | 23,379,648 | 50.8 |
| 1952..... | 53,079,124 | 52,560,222 | 99.0 | 13,193,743 | 9,756,823 | 22,950,566 | 43.2 |
| 1953..... | 58,289,130 | 56,714,031 | 97.3 | 14,403,972 | 9,562,383 | 23,966,355 | 41.1 |
| 1954..... | 65,024,272 | 60,590,523 | 93.2 | 18,345,085 | 9,586,447 | 27,931,532 | 43.0 |
| 1955..... | 65,772,116 | 64,625,302 | 98.2 | 19,345,724 | 9,128,513 | 28,474,237 | 43.3 |
| British Columbia— | | | | | | | |
| 1951..... | 43,190,910 | 42,746,414 | 99.0 | 3,616,090 | 5,679,215 | 9,295,305 | 21.5 |
| 1952..... | 48,577,199 | 48,396,892 | 99.6 | 3,883,621 | 5,314,659 | 9,198,280 | 18.9 |
| 1953..... | 52,888,558 | 52,726,801 | 99.7 | 4,199,767 | 4,981,035 | 9,180,802 | 17.4 |
| 1954..... | 60,227,522 | 59,831,650 | 99.3 | 4,705,012 | 5,625,895 | 10,330,907 | 17.2 |
| 1955..... | 66,118,663 | 66,231,736 | 100.2 | 4,845,230 | 5,264,430 | 10,109,660 | 15.3 |

¹ Excludes certain provincial and other special taxes (see text following this table).

Because of the considerable differences in the division of responsibility for services between the provincial governments and their respective municipalities, extreme caution should be exercised in using the figures in Table 29 as a basis for interprovincial comparisons of the relative burden of municipal taxation. Also, in Saskatchewan municipalities are required to levy certain taxes for and on behalf of the provincial government and for

other special purposes for which there is no comparable situation in other provinces. The amounts of such taxes excluded in the Saskatchewan municipal levies in Table 29 are as follows:—

| <i>Tax</i> | 1951 | 1952 | 1953 | 1954 | 1955 |
|----------------------|------------------|------------------|------------------|------------------|------------------|
| SASKATCHEWAN— | \$ | \$ | \$ | \$ | \$ |
| Public revenue..... | 1,830,314 | 1,845,949 | ... | ... | ... |
| Hail..... | 1,111,465 | 2,069,074 | 2,863,832 | 2,522,027 | 2,872,218 |
| Telephone..... | 760,610 | 814,269 | 863,634 | 900,545 | 904,568 |
| Drainage..... | 13,157 | 11,813 | 6,794 | 7,368 | 7,593 |
| TOTALS..... | 3,715,546 | 4,741,105 | 3,734,260 | 3,429,940 | 3,784,379 |

Subsection 3.—Municipal Debt

Tables 30 and 31 set out the direct and indirect debt of local governments for the years 1954 and 1955. The amounts shown include debt incurred by municipalities for general purposes, schools and utilities, as well as debenture debt incurred directly by utilities, school authorities and certain special areas organized to provide specific local services.

Comparison with debt figures for previous years indicates that there has been a sustained upswing in municipal borrowing since 1946, largely because civic growth has increased demand for services, but also, to some extent, attributable to the inflationary factor.

30.—Debt of Municipal and School Corporations by Province for their Fiscal Years Ended in 1954

NOTE.—Figures shown are compiled from published reports of provincial Departments of Municipal Affairs, auditor reports and financial statements of municipalities, and information secured from other official sources.

| Direct and Indirect Debt | New-foundland | Prince Edward Island | Nova Scotia | New Brunswick |
|--|----------------------|----------------------|---------------|---------------|
| | \$'000 | \$'000 | \$'000 | \$'000 |
| Direct Debt (less Sinking Funds)..... | 7,337 | 5,226 | 59,836 | 60,064 |
| Debenture debt..... | 6,723 | 4,780 | 62,493 | 59,801 |
| Less sinking funds..... | 307 | 1,028 | 9,074 | 6,533 |
| Net Debenture Debt..... | 6,416 | 3,752 | 53,419 | 53,268 |
| Temporary loans and bank overdrafts..... | 23 | 1,208 | 2,190 | 3,683 |
| Accounts payable and other liabilities..... | 898 | 266 | 4,227 | 3,113 |
| Indirect Debt (less Sinking Funds)..... | .. | — | 898 | 3,719 |
| Guaranteed bonds, debentures, etc..... | .. | — | 1,141 | 3,719 |
| Guaranteed bank loans..... | .. | — | — | — |
| Less sinking funds..... | .. | — | 243 | — |
| Grand Totals..... | 7,337 | 5,226 | 60,734 | 63,783 |
| | Quebec | Ontario | Manitoba | Saskatchewan |
| | \$'000 | \$'000 | \$'000 | \$'000 |
| Direct Debt (less Sinking Funds)..... | 771,675 | 844,655 | 82,940 | 72,487 |
| Debenture debt..... | 690,812 ¹ | 730,549 | 83,624 | 59,855 |
| Less sinking funds..... | 17,691 | 5,274 | 14,851 | 6,852 |
| Net Debenture Debt..... | 673,121 | 725,275 | 68,773 | 53,003 |
| Temporary loans and bank overdrafts..... | 35,025 | 50,093 ² | 7,378 | 5,777 |
| Accounts payable and other liabilities..... | 63,529 | 69,287 ² | 6,789 | 13,707 |
| Indirect Debt (less Sinking Funds)..... | 431 | 9,553 | 1,272 | .. |
| Guaranteed bonds, debentures, etc..... | — | 9,943 | 1,272 | .. |
| Guaranteed bank loans..... | 431 | — | — | .. |
| Less sinking funds..... | — | 390 | — | .. |
| Grand Totals..... | 772,106 | 854,208 | 84,212 | 72,487 |

For footnotes, see end of table, p. 1118.

30.—Debt of Municipal and School Corporations by Province for their Fiscal Years Ended in 1954—concluded

| Direct and Indirect Debt | Alberta | British Columbia | Totals | |
|--|----------------|------------------|------------------------|------------------|
| | | | 1953* | 1954 |
| | \$'000 | \$'000 | \$'000 | \$'000 |
| Direct Debt (less Sinking Funds)..... | 226,802 | 208,641 | 2,041,146 | 2,339,663 |
| Debenture debt..... | 194,013 | 220,052 | 1,845,491 ¹ | 2,112,702 |
| Less sinking funds..... | 1,294 | 26,051 | 92,482 | 88,955 |
| Net Debenture Debt..... | 192,719 | 194,001 | 1,753,009 | 2,023,747 |
| Temporary loans and bank overdrafts..... | 7,869 | 2,344 | 96,050 | 115,590 |
| Accounts payable and other liabilities..... | 26,214 | 12,296 | 192,087 | 200,326 |
| Indirect Debt (less Sinking Funds)..... | 364 | 3 | 17,138 | 16,240 |
| Guaranteed bonds, debentures, etc..... | — | 16 | 17,079 | 16,091 |
| Guaranteed bank loans..... | 364 | — | 874 | 795 |
| Less sinking funds..... | — | 13 | 815 | 646 |
| Grand Totals..... | 227,166 | 208,644 | 2,058,284 | 2,355,903 |

¹ Includes \$42,930,000 debentures of the Montreal Transportation Commission, including those of the Montreal Tramways Company, guaranteed by the City of Montreal, of which \$973,000 were held by the Commission in the Sinking Fund. ² Excludes current liabilities of schools and liabilities of other local boards and commissions but includes in lieu thereof amounts due by municipalities to such schools and other local authorities; information required to make the necessary eliminations on this account is not available from published reports.

31.—Debt of Municipal and School Corporations by Province for their Fiscal Years Ended in 1955

NOTE.—Figures shown are compiled from published reports of provincial Departments of Municipal Affairs, auditor reports and financial statements of municipalities and information secured from other official sources.

| Direct and Indirect Debt | Newfoundland | Prince Edward Island | Nova Scotia | New Brunswick |
|--|----------------------|----------------------|---------------|---------------|
| | \$'000 | \$'000 | \$'000 | \$'000 |
| Direct Debt (less Sinking Funds)..... | 11,508 | 5,935 | 61,314 | 65,060 |
| Debenture debt..... | 10,765 | 5,985 | 62,902 | 63,967 |
| Less sinking funds..... | 388 | 1,156 | 8,225 | 6,361 |
| Net Debenture Debt..... | 10,377 | 4,829 | 54,677 | 57,606 |
| Temporary loans and bank overdrafts..... | 91 | 837 | 2,141 | 3,529 |
| Accounts payable and other liabilities..... | 1,040 | 269 | 4,496 | 3,925 |
| Indirect Debt (less Sinking Funds)..... | .. | — | 856 | 3,757 |
| Guaranteed bonds, debentures, etc..... | .. | — | 1,129 | 3,757 |
| Guaranteed bank loans..... | .. | — | — | — |
| Less sinking funds..... | .. | — | 273 | — |
| Grand Totals..... | 11,508 | 5,935 | 62,170 | 68,817 |
| | Quebec | Ontario | Manitoba | Saskatchewan |
| | \$'000 | \$'000 | \$'000 | \$'000 |
| Direct Debt (less Sinking Funds)..... | 855,212 | 935,804 | 92,764 | 85,856 |
| Debenture debt..... | 776,169 ¹ | 809,026 | 91,899 | 71,267 |
| Less sinking funds..... | 17,146 | 3,721 | 15,818 | 8,275 |
| Net Debenture Debt..... | 759,023 | 805,305 | 76,081 | 62,992 |

For footnote, see end of table.

**31.—Debt of Municipal and School Corporations by Province for their Fiscal Years
Ended in 1955—concluded**

| Direct and Indirect Debt | Quebec | Ontario | Manitoba | Saskatchewan |
|--|----------------|---------------------|------------------------|------------------|
| | \$'000 | \$'000 | \$'000 | \$'000 |
| Temporary loans and bank overdrafts..... | 32,777 | 61,837 ² | 9,585 | 8,862 |
| Accounts payable and other liabilities..... | 63,412 | 68,662 ² | 7,098 | 14,002 |
| Indirect Debt (less Sinking Funds)..... | 332 | 8,744 | 1,233 | — |
| Guaranteed bonds, debentures, etc..... | — | 8,834 | 1,233 | — |
| Guaranteed bank loans..... | 332 | — | — | — |
| Less sinking funds..... | — | 90 | — | — |
| Grand Totals..... | 855,544 | 944,548 | 93,997 | 85,856 |
| | Alberta | British Columbia | Totals | |
| | | | 1954 | 1955 |
| | \$'000 | \$'000 | \$'000 | \$'000 |
| Direct Debt (less Sinking Funds)..... | 261,042 | 272,678 | 2,339,663 | 2,647,173 |
| Debenture debt..... | 230,717 | 285,730 | 2,112,702 ¹ | 2,408,427 |
| Less sinking funds..... | 1,566 | 30,264 | 88,955 | 92,920 |
| Net Debenture Debt..... | 229,151 | 255,466 | 2,023,747 | 2,315,507 |
| Temporary loans and bank overdrafts..... | 5,827 | 2,245 | 115,590 | 127,731 |
| Accounts payable and other liabilities..... | 26,064 | 14,967 | 200,326 | 203,935 |
| Indirect Debt (less Sinking Funds)..... | — | 1 | 16,240 | 14,923 |
| Guaranteed bonds, debentures, etc..... | — | 16 | 16,091 | 14,969 |
| Guaranteed bank loans..... | — | — | 795 | 332 |
| Less sinking funds..... | — | 15 | 646 | 378 |
| Grand Totals..... | 261,042 | 272,679 | 2,355,903 | 2,662,096 |

¹ Includes \$41,490,000 debentures of the Montreal Transportation Commission, including those of the Montreal Tramways Company, guaranteed by the City of Montreal, of which \$921,000 were held by the Commission in the sinking fund.

² Excludes current liabilities of schools and liabilities of other local boards and commissions but includes in lieu thereof amounts due by municipalities to such schools and other local authorities; information required to make the necessary eliminations on this account is not available from published reports.

CHAPTER XXV.—NATIONAL ACCOUNTS AND CANADA'S INTERNATIONAL INVESTMENT POSITION

CONSPECTUS

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|-----------------------------------|------|---|------|
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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

Section 1.—National Accounts*

The national accounts constitute a set of accounting summaries for the nation as a whole and portray economic activity in terms of transactions taking place between different sections of the economy. By combining and summarizing these operations into their various classes, information may be obtained on the functioning of the economy which is of particular interest to governments concerned with problems of full employment, taxation and prices, and to businessmen concerned with programs of investment and marketing.

This measurement of the nation's output is in terms of established market prices; hence it is necessary to keep in mind that the value of the nation's production may change because of price variations as well as increase or decrease in volume of output.

Data are available showing volume changes in gross national expenditure in addition to the value figures. Gross national expenditure is shown in Table 3 in constant dollars (i.e., in terms of 1949 prices). Because the gross national expenditure equals the gross national product, these data also reflect volume changes in the production of goods and services as measured by the gross national product. For all other tables the data are expressed in current dollars so that year-to-year changes must be considered in relation to price changes over the period.

National accounts calculated on a quarterly basis are a logical extension of the annual national accounts and have been published since 1953. However, their preparation on a reliable and analytically useful basis is rather more difficult because of the scarcity of quarterly data, special problems arising from the measurement of farm production and problems in connection with seasonal variation.

The tables in this Section cover the more important aspects of the national income analysis in annual terms. Tables 1 and 2 show the main aggregates of national income, gross national product, gross national expenditure and their components and other tables are included to show the source and disposition of personal income, government revenue and expenditure and personal expenditure on consumer goods and services.

National income figures from 1926 have been revised since the publication of the 1956 Year Book. The complete new series is published in DBS bulletin *National Accounts, Income and Expenditure, 1926-1956*, which contains also a review of economic trends during that period.

National Income.—Net national income at factor cost measures the current earnings of Canadian factors of production (i.e., land, labour, capital) from productive activity. It includes wages and salaries, profits, interest, net rent and net income of farm and non-farm unincorporated business.

* Prepared in the Research and Development Division, Dominion Bureau of Statistics.

Gross National Product.—Gross national product, by totalling all costs arising in production, measures the market value of all final goods and services produced in the current period by Canadian factors of production. It is equal to national income plus net indirect taxes (indirect taxes less subsidies), plus capital consumption allowances and miscellaneous valuation adjustments.

Personal Income.—Personal income is the sum of current receipts of income whether or not these receipts represent earnings from production. It includes transfer payments from government such as family allowances, unemployment insurance benefits, and war service gratuities, in addition to wages and salaries, net income of unincorporated business, interest and dividends and net rental income of persons. It does not include undistributed profits of corporations and other elements of the national income not paid out to persons.

Gross National Expenditure.—Gross national expenditure measures the same aggregate as gross national product, namely, total production of final goods and services at market prices, by tracing the disposition of production through final sales to persons, to governments, to business on capital account (including changes in inventories) and to non-residents (exports). Imports of goods and services, including net payments of interest and dividends to non-residents, are deducted since the purpose is to measure only Canadian production.

Economic Activity in 1955 and 1956

Gross National Product and National Income.—In the year 1955 there was a sharp recovery from the mild contraction in economic activity that characterized the period mid-1953 to mid-1954. Output of goods and services, which was beginning to rise in the latter part of 1954, expanded rapidly throughout 1955, and for the year as a whole was approximately 9 p.c. higher than in 1954. The upswing lifted the gross national product from \$24,871,000,000 in 1954 to \$27,070,000,000 in 1955. With prices virtually unchanged, this increase represented the largest gain of any postwar year in the volume of production.

The expansion of output in the various industrial groups was widely dispersed and substantial in size. Manufacturing output showed an increase of 7 p.c., with relatively large increases in almost all those sub-groups that had been affected by the contraction of activity in 1953-54 (iron and steel products, electrical apparatus and supplies, and textiles). Sharp gains were also recorded in wood products, non-ferrous metal products and non-metallic mineral products.

These developments in production were associated with an increase of 4 p.c. in the number of persons with jobs in the non-farm sector. The expansion in employment, together with higher average earnings, raised labour income to \$13,215,000,000, 6 p.c. higher than in 1954.

Accrued net income of farm operators from farm production rose from \$1,017,000,000 to \$1,261,000,000, largely as a result of a better crop of grain; farm cash income, however, was slightly lower than in the previous year. Net income of non-farm unincorporated business rose 8 p.c., with the increases concentrated in construction and retail trade.

Corporate profits, which had been declining year by year from their postwar peak in 1951, rose to a new high of \$2,489,000,000, a gain of 27 p.c. Other investment income continued to rise.

➤ Sustained expansion in economic activity in 1956 again raised the level of gross national product, which reached a total of \$30,098,000,000, 11 p.c. higher than in 1955. Prices resumed their upward trend and the gain in the physical volume of output was 7 p.c.—not much short of the 9 p.c. achieved in 1955.

The most striking increases in production in non-agricultural industries occurred in transportation, mining and construction. In manufacturing industries the increase was about 6 p.c., with an 8-p.c. increase in durable goods industries and a 4.5-p.c. increase in non-durables; gains were relatively large in those industries manufacturing producer and consumer durables, construction materials, and basic export products.

This expansion in output was associated with a 5-p.c. increase in the number of persons with jobs in the non-agricultural sector of the economy. The magnitude of this increase was accounted for by a drop in unemployment, an unusually large growth in the labour force and a further decline in farm employment. Higher average earnings, up 5 p.c., were somewhat more important than increased employment in raising labour income to \$14,719,000,000, an increase of 11 p.c. over the previous year.

Accrued net income of farm operators from farm production in 1956 was \$1,468,000,000, a gain of 16 p.c. over the previous year; the rise in farm cash income was somewhat smaller. As in 1955, the rise mainly reflected a larger grain crop. Net income of non-farm unincorporated business was higher by 8 p.c.; retail trade and construction were again prominent among the industries registering increases.

Corporate profits were \$2,802,000,000 in 1956 compared with \$2,489,000,000 in 1955, though the rate of increase was significantly lower than in the earlier year. Other investment income was also higher.

1.—National Income and Gross National Product 1939–56

NOTE.—Figures in this table have been completely revised since the publication of the 1956 Year Book.

(Millions of dollars)

| Item | 1939 | 1944 | 1946 | 1950 ¹ | 1953 | 1954 | 1955 | 1956 |
|--|--------------|---------------|---------------|-------------------|---------------|---------------|---------------|---------------|
| Wages, salaries and supplementary labour income..... | 2,601 | 4,998 | 5,487 | 8,629 | 12,110 | 12,432 | 13,215 | 14,719 |
| Military pay and allowances..... | 32 | 1,068 | 340 | 137 | 309 | 367 | 394 | 424 |
| Corporation profits before taxes..... | 521 | 1,081 | 1,269 | 2,118 | 2,294 | 1,963 | 2,489 | 2,802 |
| Rent, interest, and miscellaneous investment income..... | 301 | 589 | 581 | 890 | 1,329 | 1,511 | 1,748 | 1,964 |
| Accrued net income of farm operators from farm production..... | 362 | 1,088 | 1,056 | 1,322 | 1,575 | 1,017 | 1,261 | 1,468 |
| Net income of non-farm unincorporated business..... | 475 | 811 | 1,072 | 1,439 | 1,688 | 1,656 | 1,793 | 1,937 |
| Inventory valuation adjustment..... | -56 | -52 | -254 | -374 | -11 | 86 | -217 | -260 |
| Net National Income at Factor Cost... | 4,236 | 9,583 | 9,551 | 14,161 | 19,294 | 19,032 | 20,683 | 23,054 |
| Indirect taxes less subsidies..... | 734 | 1,112 | 1,270 | 2,000 | 2,911 | 2,947 | 3,238 | 3,601 |
| Capital consumption allowance and miscellaneous valuation adjustments..... | 637 | 1,005 | 998 | 1,913 | 2,673 | 2,905 | 3,163 | 3,492 |
| Residual error of estimate..... | 29 | 150 | 31 | -68 | 142 | -13 | -14 | -49 |
| Gross National Product at Market Prices..... | 5,636 | 11,850 | 11,850 | 18,006 | 25,020 | 24,871 | 27,070 | 30,098 |

¹ Newfoundland included from 1950.

Gross National Expenditure.—The major expansionary force in the economy in 1955 was consumer expenditure, together with housing; these two closely related sectors accounted for about two-thirds of the increase in gross national expenditure in that year. At the same time, expansionary influences were present in every other major segment of demand.

Personal income was up 8 p.c. and, since consumer prices remained virtually unchanged, there was a parallel rise in real income; on a per capita basis, the gain was the largest of any postwar year. Consumer expenditure also rose 8 p.c., with an especially large increase in purchases of durables, which were up 16 p.c. Gains were also widespread in non-durable groups and in services. The rise in personal income, together with a larger supply of mortgage funds, was reflected in rising expenditures on housing; 138,366 housing units were started during the year and 127,929 units completed, representing substantial increases

over the previous year. Business outlays on non-residential construction and on machinery and equipment also continued their upward course, rising 11 p.c. and 6 p.c. respectively. Together they amounted to \$3,832,000,000, equal to their previous high in 1953.

The rising level of activity prompted a shift to accumulation of business inventories, in contrast to liquidation in 1954, and the larger grain crop led to increased investment in farm inventories. The shift in inventories alone accounted for about one-fifth of the increase in gross national product. Government expenditure on goods and services rose to \$4,780,000,000, 7 p.c. higher than in the previous year. While defence expenditures were slightly higher, most of the increase was attributable to larger capital outlays and to higher wages and salaries.

Exports of goods and services rose to \$5,764,000,000 in 1955, an increase of 12 p.c. over 1954. The renewed up-turn of activity in the United States and continued expansion in overseas countries accounted for the strength of demand in foreign markets. The increase in imports of goods and services, particularly evident in the latter part of the year, was 16 p.c., to a total of \$6,443,000,000. Thus the deficit on current account of \$679,000,000 was substantially in excess of the \$427,000,000 recorded in 1954. Export prices were higher by 4 p.c. and import prices by about 2 p.c., so that there was a slight improvement in Canada's terms of trade with other countries.

Economic activity continued to expand in 1956, and of paramount importance in that expansion was the extraordinarily large increase in business outlays for plant and equipment, which accounted for more than 40 p.c. of the rise in the nation's total spending. The increases in consumer expenditure, housing and exports approximated those of 1955 in percentage terms.

Business outlays for plant, machinery and equipment amounted to \$5,103,000,000; the advance of 33 p.c., in value terms, over 1955 was the largest percentage increase in any postwar year except 1947. After taking account of the advance in prices, which was especially marked in the investment goods sector, the rise in physical terms was 25 p.c. The gains were heavily concentrated in projects related to resource development, fuel and energy requirements and the processing of primary commodities.

At \$1,526,000,000, outlays on housing were higher in 1956 than in 1955 by 11 p.c.; taking into consideration the rise in prices, the increase in volume was 7 p.c. Higher costs and more limited supply of mortgage funds caused falling off in the rate of housing starts during the year, and it was the carryover of houses under construction at the end of 1955 and early 1956 that contributed to the record of 135,700 completions in 1956.

The high and rising level of final demand, and possibly also expectations of higher prices, made for heavy investment in business inventories. Investment in inventories, added to business outlays for plant and equipment, accounted for well over half the increase in the nation's total spending in 1956.

Personal expenditure on consumer goods and services, amounting to \$18,697,000,000, was up 7 p.c. in value but somewhat less in volume. This increase, which was associated with an 11-p.c. rise in personal income, was well distributed over the various categories, but the rise in purchases of durables was much less pronounced than in 1955.

Government expenditure on goods and services was \$5,266,000,000, 10 p.c. higher than in 1955. The increase was mainly accounted for by larger capital outlays, notably by provincial governments, and by larger wage and salary payments.

Continuing strength of foreign demand, greater productive capacity in the export industries, and a decided improvement in sales of wheat resulted in exports of goods and services valued at \$6,339,000,000. This was also a 10-p.c. increase, and higher prices accounted for a little less than one-third of that increase.

Imports of goods and services were \$7,697,000,000 in 1956, 19 p.c. higher than in 1955; this increase represented a larger volume of goods and services sold. The heavy demands of the huge investment program were reflected in relatively large increases in machinery and equipment and in basic materials related thereto; for example, imports of iron and its products advanced 39 p.c.

The deficit on international current account climbed to \$1,358,000,000 in 1956, twice the figure for 1955.

2.—Gross National Expenditure 1939-56

NOTE.—Figures in this table have been completely revised since the publication of the 1956 Year Book.

(Millions of dollars)

| Item | 1939 | 1944 | 1946 | 1950 ¹ | 1953 | 1954 | 1955 | 1956 |
|--|--------------|---------------|---------------|-------------------|---------------|---------------|---------------|---------------|
| Personal expenditure on consumer goods and services..... | 3,984 | 6,274 | 8,031 | 12,026 | 15,592 | 16,175 | 17,464 | 18,697 |
| Government expenditure on goods and services..... | 683 | 4,978 | 1,796 | 2,344 | 4,432 | 4,461 | 4,780 | 5,266 |
| Current expenditure..... | .. | .. | .. | 1,756 | 3,454 | 3,619 | 3,746 | 4,004 |
| Gross fixed capital formation..... | .. | .. | .. | 588 | 978 | 942 | 1,034 | 1,262 |
| Business gross fixed capital formation..... | 592 | 900 | 1,388 | 3,348 | 4,998 | 4,779 | 5,210 | 6,629 |
| New residential construction..... | 174 | 267 | 368 | 883 | 1,166 | 1,227 | 1,378 | 1,526 |
| New non-residential construction..... | 164 | 256 | 435 | 1,042 | 1,719 | 1,671 | 1,843 | 2,550 |
| New machinery and equipment..... | 254 | 377 | 585 | 1,423 | 2,113 | 1,881 | 1,984 | 2,553 |
| Value of physical change in inventories.... | 282 | -145 | 333 | 550 | 583 | -130 | 281 | 815 |
| Non-farm business inventories..... | 101 | -10 | 360 | 399 | 351 | -40 | 102 | 545 |
| Farm inventories and grain in commercial channels..... | 181 | -135 | -27 | 151 | 232 | -90 | 179 | 270 |
| Exports of goods and services..... | 1,451 | 3,561 | 3,210 | 4,183 | 5,400 | 5,147 | 5,764 | 6,339 |
| Deduct: Imports of goods and services.... | 1,328 | 3,569 | 2,877 | 4,513 | 5,843 | 5,574 | 6,443 | 7,697 |
| Residual error of estimate..... | -28 | -149 | -31 | 68 | -142 | 13 | 14 | 49 |
| Gross National Expenditure at Market Prices..... | 5,636 | 11,850 | 11,850 | 18,006 | 25,020 | 24,871 | 27,070 | 30,093 |

¹ Newfoundland included from 1950.

3.—Gross National Expenditure in Constant (1949) Dollars 1939-56

NOTE.—Figures in this table have been completely revised since the publication of the 1956 Year Book.

(Millions of dollars)

| Item | 1939 | 1944 | 1946 | 1950 ¹ | 1953 | 1954 | 1955 | 1956 |
|--|-------|-------|--------|-------------------|--------|--------|--------|--------|
| Personal expenditure on consumer goods and services..... | 6,510 | 8,444 | 10,323 | 11,642 | 13,338 | 13,650 | 14,738 | 15,516 |
| Government expenditure on goods and services..... | 1,156 | 6,499 | 2,294 | 2,242 | 3,517 | 3,415 | 3,550 | 3,704 |
| Current expenditure..... | .. | .. | .. | 1,680 | 2,748 | 2,676 | 2,754 | 2,779 |
| Gross fixed capital formation..... | .. | .. | .. | 562 | 769 | 739 | 796 | 925 |
| Business gross fixed capital formation..... | 1,053 | 1,235 | 1,846 | 3,167 | 3,926 | 3,723 | 3,973 | 4,787 |
| New residential construction..... | 361 | 401 | 512 | 833 | 905 | 946 | 1,040 | 1,111 |
| New non-residential construction..... | 286 | 355 | 569 | 988 | 1,306 | 1,272 | 1,367 | 1,783 |
| New machinery and equipment..... | 427 | 496 | 777 | 1,346 | 1,715 | 1,505 | 1,566 | 1,893 |
| Adjusting entry..... | -21 | -17 | -12 | — | — | — | — | — |
| Change in inventories..... | 699 | -204 | 536 | 561 | 590 | -216 | 401 | 751 |
| Non-farm business inventories..... | 191 | 5 | 562 | 398 | 320 | -39 | 116 | 453 |
| Farm inventories and grain in commercial channels..... | 505 | -252 | -82 | 163 | 270 | -177 | 285 | 298 |
| Adjusting entry..... | -87 | 43 | 56 | — | — | — | — | — |
| Exports of goods and services..... | 2,885 | 5,168 | 4,115 | 3,999 | 4,809 | 4,616 | 4,960 | 5,313 |
| Deduct: Imports of goods and services.... | 2,599 | 5,020 | 3,717 | 4,206 | 5,269 | 5,013 | 5,672 | 6,567 |

¹ Newfoundland included from 1950.

3.—Gross National Expenditure in Constant (1949) Dollars 1939-56—concluded

| Item | 1939 | 1944 | 1946 | 1950 ¹ | 1953 | 1954 | 1955 | 1956 |
|---|--------------|---------------|---------------|-------------------|---------------|---------------|---------------|---------------|
| Residual error of estimate..... | -47 | -199 | -40 | 66 | -117 | 11 | 11 | 38 |
| Adjusting entry..... | -121 | 4 | -106 | — | — | — | — | — |
| Gross National Expenditure in Constant (1949) Dollars..... | 9,536 | 15,927 | 15,251 | 17,471 | 20,794 | 20,186 | 21,961 | 23,542 |
| Index of gross national expenditure (1949=100)..... | 58.3 | 97.5 | 93.3 | 106.9 | 127.2 | 123.5 | 134.4 | 144.0 |

¹ Newfoundland included from 1950.**4.—Sources of Personal Income 1939-56**

NOTE.—Figures in this table have been completely revised since the publication of the 1956 Year Book.
(Millions of dollars)

| Item | 1939 | 1944 | 1946 | 1950 ¹ | 1953 | 1954 | 1955 | 1956 |
|---|--------------|--------------|--------------|-------------------|---------------|---------------|---------------|---------------|
| Wages, salaries and supplementary labour income..... | 2,601 | 4,998 | 5,487 | 8,629 | 12,110 | 12,432 | 13,215 | 14,719 |
| Deduct: Employer and employee contributions to social insurance and government pension funds..... | 35 | 133 | 149 | 256 | 410 | 422 | 449 | 490 |
| Military pay and allowances..... | 32 | 1,068 | 340 | 137 | 309 | 367 | 394 | 424 |
| Net income received by farm operators from farm production..... | 412 | 1,110 | 1,034 | 1,156 | 1,599 | 1,009 | 1,197 | 1,448 |
| Net income of non-farm unincorporated business..... | 475 | 811 | 1,072 | 1,439 | 1,688 | 1,656 | 1,793 | 1,937 |
| Interest, dividends and net rental income of persons..... | 570 | 741 | 817 | 1,268 | 1,551 | 1,719 | 1,911 | 2,125 |
| Transfer payments (excluding interest)— From governments..... | 229 | 259 | 1,106 | 1,030 | 1,461 | 1,634 | 1,731 | 1,765 |
| Charitable contributions from corporations..... | 6 | 11 | 12 | 25 | 28 | 26 | 28 | 30 |
| Totals, Personal Income..... | 4,290 | 8,865 | 9,719 | 13,428 | 18,336 | 18,421 | 19,820 | 21,958 |

¹ Newfoundland included from 1950.**5.—Disposition of Personal Income 1939-56**

NOTE.—Figures in this table have been completely revised since the publication of the 1956 Year Book.
(Millions of dollars)

| Item | 1939 | 1944 | 1946 | 1950 ¹ | 1953 | 1954 | 1955 | 1956 |
|--------------------------------------|--------------|--------------|--------------|-------------------|---------------|---------------|---------------|---------------|
| Personal Direct Taxes— | | | | | | | | |
| Income taxes..... | 62 | 772 | 711 | 612 | 1,287 | 1,296 | 1,297 | 1,495 |
| Succession duties..... | 28 | 39 | 54 | 66 | 73 | 78 | 127 | 146 |
| Miscellaneous taxes..... | 22 | 27 | 31 | 62 | 72 | 63 | 67 | 79 |
| Purchases of goods and services..... | 3,984 | 6,274 | 8,031 | 12,026 | 15,592 | 16,175 | 17,464 | 18,697 |
| Personal net savings..... | 194 | 1,753 | 892 | 662 | 1,312 | 809 | 865 | 1,541 |
| Totals, Personal Income..... | 4,290 | 8,865 | 9,719 | 13,428 | 18,336 | 18,421 | 19,820 | 21,958 |

¹ Newfoundland included from 1950.

6.—Personal Expenditure on Consumer Goods and Services 1939-56

NOTE.—Figures in this table have been completely revised since the publication of the 1956 Year Book.
(Millions of dollars)

| Item | 1939 | 1944 | 1946 | 1950 ¹ | 1953 | 1954 | 1955 | 1956 |
|---|--------------|--------------|--------------|-------------------|---------------|---------------|---------------|---------------|
| Food..... | 960 | 1,782 | 2,126 | 3,140 | 3,884 | 4,030 | 4,231 | 4,506 |
| Tobacco and alcoholic beverages..... | 228 | 531 | 710 | 928 | 1,101 | 1,114 | 1,164 | 1,231 |
| Clothing and personal furnishings..... | 479 | 941 | 1,169 | 1,528 | 1,844 | 1,826 | 1,900 | 2,021 |
| Shelter..... | 582 | 801 | 884 | 1,385 | 1,972 | 2,192 | 2,392 | 2,572 |
| Household operations..... | 593 | 744 | 1,016 | 1,544 | 1,999 | 2,104 | 2,308 | 2,480 |
| Transportation..... | 370 | 341 | 577 | 1,355 | 1,775 | 1,800 | 2,107 | 2,201 |
| Personal and medical care and death expenses..... | 261 | 379 | 479 | 745 | 1,012 | 1,091 | 1,157 | 1,221 |
| Miscellaneous..... | 511 | 755 | 1,070 | 1,401 | 2,005 | 2,018 | 2,205 | 2,465 |
| Totals..... | 3,984 | 6,274 | 8,031 | 12,026 | 15,592 | 16,175 | 17,464 | 18,697 |
| Durable goods..... | 312 | 323 | 596 | 1,451 | 2,001 | 1,970 | 2,284 | 2,406 |
| Non-durable goods..... | 2,186 | 3,772 | 4,829 | 6,711 | 8,199 | 8,373 | 8,879 | 9,552 |
| Services..... | 1,486 | 2,179 | 2,606 | 3,864 | 5,392 | 5,832 | 6,301 | 6,739 |

¹ Newfoundland included from 1950.

7.—Federal, Provincial and Municipal Government Revenue and Expenditure 1939-56

NOTE.—Figures in this table have been completely revised since the publication of the 1956 Year Book.
(Millions of dollars)

| Item | 1939 | 1944 | 1946 | 1950 ¹ | 1953 | 1954 | 1955 | 1956 |
|---|--------------|--------------|--------------|-------------------|--------------|--------------|--------------|--------------|
| Revenue | | | | | | | | |
| Direct Taxes: Persons— | | | | | | | | |
| Income taxes..... | 62 | 772 | 711 | 612 | 1,287 | 1,296 | 1,297 | 1,495 |
| Succession duties..... | 28 | 39 | 54 | 66 | 73 | 78 | 127 | 146 |
| Miscellaneous taxes..... | 22 | 27 | 31 | 62 | 72 | 63 | 67 | 79 |
| Direct taxes: corporations..... | 115 | 598 | 654 | 983 | 1,220 | 1,082 | 1,280 | 1,430 |
| Withholding taxes..... | 10 | 27 | 29 | 54 | 54 | 58 | 67 | 68 |
| Indirect taxes..... | 717 | 1,379 | 1,506 | 2,063 | 3,021 | 3,033 | 3,317 | 3,722 |
| Investment Income— | | | | | | | | |
| Interest..... | 71 | 105 | 120 | 155 | 206 | 237 | 234 | 256 |
| Profits of government business enterprises | 50 | 262 | 284 | 316 | 445 | 450 | 508 | 563 |
| Employer and employee contributions to social insurance and government pension funds..... | 35 | 133 | 149 | 256 | 410 | 422 | 449 | 490 |
| Totals, Revenue..... | 1,110 | 3,342 | 3,538 | 4,567 | 6,788 | 6,719 | 7,346 | 8,249 |
| Expenditure | | | | | | | | |
| Purchase of goods and services..... | 683 | 4,978 | 1,796 | 2,344 | 4,432 | 4,461 | 4,780 | 5,266 |
| Transfer Payments— | | | | | | | | |
| Interest..... | 275 | 423 | 554 | 545 | 610 | 669 | 670 | 718 |
| Other..... | 229 | 259 | 1,106 | 1,030 | 1,461 | 1,634 | 1,731 | 1,765 |
| Subsidies..... | —17 | 267 | 236 | 63 | 110 | 86 | 79 | 121 |
| Surplus or deficit (on transactions relating to the National Accounts)..... | —60 | —2,585 | —154 | 585 | 175 | —131 | 86 | 379 |
| Totals, Expenditure..... | 1,110 | 3,342 | 3,538 | 4,567 | 6,788 | 6,719 | 7,346 | 8,249 |

¹ Newfoundland included from 1950.

8.—Analysis of Corporation Profits, 1939-56

NOTE.—Figures in this table have been completely revised since the publication of the 1956 Year Book.
(Millions of dollars)

| Item | 1939 | 1944 | 1946 | 1950 ¹ | 1953 | 1954 | 1955 | 1956 |
|--|------------|------------|------------|-------------------|------------|------------|------------|--------------|
| Corporation profits before taxes..... | 521 | 1,081 | 1,269 | 2,118 | 2,294 | 1,963 | 2,489 | 2,802 |
| Dividends paid to non-residents..... | 177 | 153 | 205 | 404 | 317 | 327 | 395 | 444 |
| Corporation profits including dividends paid to non-residents..... | 698 | 1,234 | 1,474 | 2,522 | 2,611 | 2,290 | 2,884 | 3,246 |
| Deduct: Corporation income tax liabilities | 115 | 598 | 654 | 983 | 1,220 | 1,082 | 1,280 | 1,430 |
| Excess of tax liabilities over collections. | 22 | -107 | 50 | 142 | -149 | -94 | 170 | 58 |
| Tax collections..... | 93 | 705 | 604 | 841 | 1,369 | 1,176 | 1,110 | 1,372 |
| Corporation profits after taxes..... | 583 | 636 | 820 | 1,539 | 1,391 | 1,208 | 1,604 | 1,816 |
| Deduct: Dividends paid to non-residents.. | 177 | 153 | 205 | 404 | 317 | 327 | 395 | 444 |
| Corporation profits retained in Canada..... | 406 | 483 | 615 | 1,135 | 1,074 | 881 | 1,209 | 1,372 |
| Deduct: Dividends paid to Canadian persons..... | 125 | 123 | 115 | 358 | 317 | 284 | 302 | 330 |
| Deduct: Charitable contributions from corporations..... | 6 | 11 | 12 | 25 | 28 | 26 | 28 | 30 |
| Undistributed Corporation Profits.. | 275 | 349 | 488 | 752 | 729 | 571 | 879 | 1,012 |

¹ Newfoundland included from 1950.

9.—Corporation Profits before Taxes (including Dividends Paid to Non-residents) by Industry 1954-56

NOTE.—Figures in this table have been completely revised since the publication of the 1956 Year Book.
(Millions of dollars)

| Industry | 1954 | 1955 | 1956 | Industry | 1954 | 1955 | 1956 |
|---------------------------------|-------|-------|-------|--|--------------|--------------|--------------|
| Agriculture..... | 15 | 19 | 19 | Electric power, gas and water utilities..... | 49 | 54 | 63 |
| Forestry..... | | | | Wholesale trade..... | 151 | 203 | 258 |
| Fishing and trapping..... | | | | Retail trade..... | 130 | 156 | 177 |
| Mining, quarrying and oil wells | 221 | 336 | 378 | Finance, insurance and real estate..... | 269 | 292 | 324 |
| Manufacturing..... | 1,186 | 1,501 | 1,655 | Service..... | 49 | 55 | 62 |
| Construction..... | 89 | 75 | 73 | Totals..... | 2,290 | 2,884 | 3,246 |
| Transportation..... | 81 | 139 | 174 | | | | |
| Storage..... | 11 | 12 | 13 | | | | |
| Communication..... | 39 | 42 | 50 | | | | |

Section 2.—Canada's International Investment Position*

Exceptional increases have been occurring in the amounts of foreign capital invested in Canada. As these changes have been under way for a number of years, the accumulated amounts of investments in Canada owned by non-residents have shown a rapid rise, and the balance of Canadian indebtedness to other countries has risen even more sharply as Canadian assets abroad have increased more moderately than the liabilities. The rise in non-resident investments has been particularly pronounced in the period since 1948, having doubled from \$7,506,000,000 to \$15,400,000,000 in 1956, and the balance of international indebtedness in the same period has risen from \$3,700,000,000 to \$9,500,000,000.

* Prepared in the Balance of Payments Section, International Trade Division, Dominion Bureau of Statistics. A more extended review appears in DBS report, *Canada's International Investment Position, 1926 to 1954* and some more recent statistics in the report, *The Canadian Balance of International Payments, 1955, and International Investment Position*.

Particularly significant is the fact that direct investments in Canadian businesses controlled in the United States and elsewhere have risen at an even greater rate than total investments and there have also been large increases in other types of investment in Canadian equities. In contrast, the increase in non-resident portfolios of Canadian Government, municipal and corporation bonds has been relatively moderate.

Investments of non-resident capital have been closely related to the high rate of growth in Canada. Large development projects have been initiated and financed by investors from other countries and the growth effects from this investment have, in turn, led to Canadian borrowing in capital markets outside of Canada. While capital inflows have been the principal source of the increased indebtedness abroad, another substantial contributor has been the earnings from non-resident-controlled branches and subsidiaries which were retained in Canada. New resource industries depending to a large extent on non-resident financing include all branches of the petroleum industry, iron ore and other mining, aluminum, nickel, pulp and paper, and chemicals. In addition, secondary industry has also benefited from non-resident investment.

Foreign Investments in Canada.—Dependence upon external sources of capital for financing in earlier periods of heavy investment activity has been characteristic of Canadian development. During the exceptional growth period that occurred before World War I the rate of increase in non-resident investment was very high and dependency upon external sources of capital was greater than in later periods. Total non-resident investments in Canada increased from an estimated \$1,232,000,000 in 1900 to \$3,837,000,000 by 1914, mainly in the form of bonded debt for railway and other expansion guaranteed by the Canadian Government. This was the period when the principal external source of capital was London, and by 1914 British investments in Canada, estimated at \$2,778,000,000, were at about their highest level. By the same date, United States investments, although they had been increasing rapidly, had only about one-third of the value of British-owned investments.

During the first part of the inter-war period the United States became the principal source of external capital, and by 1926 the United States-owned portion of Canada's international debt exceeded that owned in the United Kingdom which had not increased since 1914. Growth in United States investments in Canada continued for some years but was interrupted in the 1930's when the total was reduced by repatriations of securities and other withdrawals of capital. Increases began again in the 1940's and by the end of World War II, United States investments of \$4,990,000,000 compared with British investments of \$1,750,000,000. The latter had been reduced by wartime repatriation measures and the proceeds were used in financing British expenditures in Canada. Following the War, up to 1948, some further declines occurred in British investments in Canada but since then they have increased.

United States investments have risen each year since the end of the Second World War, particularly since 1948. Between that year and 1956 the total more than doubled. At \$11,651,000,000, United States investments in 1956 continued to represent more than three-quarters of all non-resident investments in Canada and also made up a similar ratio of the increase during this recent period. The main rise occurred in direct investments in companies controlled in the United States, which are prominent in many branches of Canadian industry. In 1956 portfolio investments in Canada owned in the United States were about one-half as high again as in 1949. A considerable part of this latter rise occurred in 1956 when large sales of new issues of securities were made in that country.

British investments in Canada totalled \$2,675,000,000 in 1956 and were at a new postwar peak which was not far below the earlier maximum levels maintained for several decades following 1914. But these investments now account for only 17 p.c. of the total non-resident investments in Canada compared with 36 p.c. at the end of 1939 before most of the wartime repatriations. The rise in British investments in Canada from the low point in 1948 was more than \$1,000,000,000 up to 1956, particularly concentrated in direct investments which have more than doubled since then and which now represent a

much larger portion of the total than in the prewar period. In absolute terms, this rise in total British investments in Canada is more than the rise in investments by all other overseas countries in the same period, although the rate of increase has been lower.

Investments of countries other than the United States and the United Kingdom reached a record total of \$1,075,000,000 at the end of 1956. Being almost three times the corresponding 1950 figure, this represents a much higher rate of increase than has occurred in either United States or British investments and large increases have taken place in portfolio holdings of securities as well as in direct investments. At 7 p.c. of the total, this group of countries, mostly in Western Europe, makes up a larger portion of total investments than ever before. About 90 p.c. of the direct investments, which totalled \$315,000,000 in 1955, also came from Western Europe; more than one-third was of Belgian origin with French and Swiss making up the next largest groups. Since then German direct investments have risen significantly.

The degree of dependence upon non-resident capital for financing Canadian investment has been relatively much less in the postwar period than in the earlier periods of exceptional expansion, even though the rise in non-resident investments has been so great. Thus, from 1950 to 1956 the net use of foreign resources amounted to about one-fifth of net capital formation in Canada, and direct foreign financing amounted to about one-third. But in the year 1956 when these ratios had increased considerably to about one-third and two-fifths respectively, they were still less than the corresponding ratios in the short period 1929 to 1930 when inter-war investment activity was at its highest point. In that period more than one-half of net capital formation was financed from outside of Canada, and in the period of heavy investment before World War I an even larger ratio of investment was financed by external capital. In considering these changes it should be noted that for a decade and a half, between 1934 and 1949, Canada was a net exporter of capital and that Canadian assets abroad have been rising over a long period.

It should also be noted that the above ratios relate to the place of non-resident investments in all spheres of development including those where Canadian sources of financing predominate such as in merchandising, agriculture, housing, public utilities, and other forms of social capital. Thus non-resident financing of industry and mining has been much higher than the over-all ratios indicate, and has provided the major portion of the capital investment in this field in the period since 1948. The most comprehensive calculation of the ratios of non-resident ownership in Canadian manufacturing, mining and petroleum is for the year 1954, and it should be noted that subsequent changes are likely to have increased non-resident ownership even more. In that year the Canadian manufacturing industry was 48 p.c. owned by non-residents but capital subject to foreign control was 54 p.c. These proportions compared with 44 p.c. and 48 p.c., respectively, as recently as at the end of 1951. In the broad field of mining, smelting and petroleum, exploration and development companies, non-resident ownership and control each amounted to 59 p.c. at the end of 1954, whereas at the end of 1951 non-resident ownership and control had amounted to 51 p.c. and 53 p.c. respectively. However, resident-owned Canadian capital continued to play a leading role in the financing of such areas of business as merchandising, railways and other public utilities. Hence non-resident ownership in the broad area of business, including industry, mining, merchandising and railways and utilities as a whole, remained just under one-third for a period of some years up to 1954 (the last year for which the calculation has been made). But, in the same years, companies subject to non-resident control increased to some extent their share of the total even in this broad area of business, a trend also evident in many subdivisions of the manufacturing and extractive industries.

The same type of analysis has been applied to investments in the petroleum industry including exploration and development, refining, merchandising, pipelines and other transportation. This industry has been the largest single recipient of capital inflows in the postwar period, accounting directly for more than one-half of the net inflow of United States capital for direct investment in Canada. By the end of 1955, investments in Canadian petroleum concerns controlled in the United States made up 74 p.c. of the

total, having increased sharply from the previous year. Another 6 p.c. of the investment was controlled in overseas countries. Investments owned in the United States and overseas were 59 p.c. and 5 p.c. respectively of the total.

Another basis of judging the place of foreign-controlled business in Canadian industry is provided by a special study of production and employment in the larger Canadian manufacturing establishments controlled in the United States. Such establishments having an investment of \$1,000,000 or more accounted for about 30 p.c. of Canadian manufacturing production in 1953 and 21 p.c. of employment in that field. These ratios in non-resident-controlled plants were considerably higher than in 1946—the previous year for which a study of this kind was made.

In some industries the proportions of production and employment in plants controlled in the United States were much higher than this. Automobiles, for example, are mainly produced in United States-controlled plants, but this is exceptional. Among other industries where well over one-half of the production is in United States-controlled firms are the smelting and refining of non-ferrous metals, petroleum refining, rubber products, and motor vehicle parts. In several major industries like electrical apparatus and supplies and non-ferrous metal products the distribution of control between Canadian and United States-controlled companies is more evenly divided. In other industries the non-resident share is large although less than one-half the total. These include pulp and paper, other paper products, chemicals, medicinal and pharmaceutical products, sheet metal products, and certain branches of the machinery industry.

There are, however, many industries where much the largest part of production is in Canadian-controlled plants. Prominent among these are such important branches of industry as primary iron and steel, and some other sub-divisions of the iron and steel industry, textiles, clothing, and divisions of the foods and beverages industry, such as bakery products, beverages, and dairy products.

10.—Estimate of the Canadian Balance of International Indebtedness as at Dec. 31, 1939-56

NOTE.—Totals are rounded and may not represent the sum of their components. They are exclusive of short-term commercial indebtedness and blocked currencies.

(Billions of dollars)

| Item | 1939 | 1945 | 1949 | 1950 | 1953 | 1954 ^r | 1955 | 1956 |
|---|------------|------------|------------|------------|-------------|-------------------|-------------|-------------|
| Canadian Liabilities (Foreign Capital Invested in Canada)— | | | | | | | | |
| Direct investments..... | 2.3 | 2.7 | 3.6 | 4.0 | 6.0 | 6.8 | 7.7 | 8.9 |
| Government and municipal bonds..... | 1.7 | 1.7 | 1.8 | 2.0 | 2.1 | 2.1 | 1.9 | 2.1 |
| Other portfolio investments..... | 2.6 | 2.4 | 2.3 | 2.4 | 2.9 | 3.1 | 3.1 | 3.4 |
| Miscellaneous investments..... | 0.3 | 0.3 | 0.3 | 0.3 | 0.5 | 0.6 | 0.8 | 1.0 |
| Totals, Non-resident Long-Term Investment in Canada..... | 6.9 | 7.1 | 8.0 | 8.7 | 11.5 | 12.6 | 13.5 | 15.4 |
| Equity of non-residents in Canadian assets abroad..... | 0.2 | 0.2 | 0.3 | 0.3 | 0.6 | 0.6 | 0.7 | 0.7 |
| Canadian dollar holdings of non-residents | 0.3 | 0.3 | 0.4 | 0.6 | 0.3 | 0.3 | 0.4 | 0.4 |
| Canadian short-term assets of IMF and IBRD..... | — | — | 0.3 | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 |
| Gross Liabilities..... | 7.4 | 7.6 | 8.9 | 9.9 | 12.6 | 13.7 | 14.8 | 16.7 |
| United States..... | 4.5 | 5.4 | 6.4 | 7.1 | 9.5 | 10.3 | 11.1 | 12.4 |
| United Kingdom..... | 2.6 | 1.8 | 1.8 | 2.0 | 2.2 | 2.3 | 2.5 | 2.9 |
| Other countries, IMF and IBRD..... | 0.3 | 0.4 | 0.7 | 0.8 | 1.0 | 1.0 | 1.2 | 1.4 |

**10.—Estimate of the Canadian Balance of International Indebtedness
as at Dec. 31, 1939-56—concluded**

| Item | 1939 | 1945 | 1949 | 1950 | 1953 | 1954 ¹ | 1955 | 1956 |
|---|------------|------------|------------|------------|------------------|-------------------|------------|------------|
| Canadian Assets (Canadian Capital Invested Abroad)— | | | | | | | | |
| Direct investments..... | 0.7 | 0.7 | 0.9 | 1.0 | 1.5 | 1.6 | 1.8 | 1.9 |
| Portfolio investments..... | 0.7 | 0.6 | 0.6 | 0.6 | 0.9 ¹ | 0.9 | 1.0 | 1.0 |
| Government of Canada loans and advances..... | — | 0.7 | 2.0 | 2.0 | 1.8 | 1.7 | 1.6 | 1.6 |
| Government of Canada subscriptions to IMF and IBRD..... | — | — | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 |
| Totals, Canadian Long-Term Investments Abroad..... | 1.4 | 2.0 | 4.0 | 4.0 | 4.5 | 4.6 | 4.8 | 4.9 |
| Government of Canada holdings of gold and foreign exchange..... | 0.5 | 1.7 | 1.2 | 1.9 | 1.8 | 1.9 | 1.9 | 1.9 |
| Other Canadian short-term assets abroad..... | — | 0.1 | 0.1 | 0.1 | 0.3 | 0.4 | 0.3 | 0.5 |
| Gross Assets..... | 1.9 | 3.8 | 5.2 | 5.9 | 6.6 | 6.9 | 7.0 | 7.2 |
| Government of Canada holdings of gold and foreign exchange..... | 0.5 | 1.7 | 1.2 | 1.9 | 1.8 | 1.9 | 1.9 | 1.9 |
| United States ² | 0.9 | 0.9 | 1.1 | 1.1 | 2.0 | 2.1 | 2.2 | 2.5 |
| United Kingdom ² | 0.1 | 0.7 | 1.6 | 1.6 | 1.5 | 1.5 | 1.4 | 1.4 |
| Other countries, IMF and IBRD..... | 0.4 | 0.5 | 1.3 | 1.3 | 1.4 | 1.4 | 1.4 | 1.4 |
| Canadian Net International Indebtedness—Net Liabilities..... | 5.5 | 3.9 | 3.7 | 4.0 | 6.0 | 6.8 | 7.8 | 9.5 |
| Government of Canada holdings of gold and foreign exchange..... | -0.5 | -1.7 | -1.2 | -1.9 | -1.8 | -1.9 | -1.9 | -1.9 |
| United States ² | 3.6 | 4.6 | 5.3 | 6.0 | 7.5 | 8.2 | 8.9 | 9.9 |
| United Kingdom ² | 2.5 | 1.1 | 0.2 | 0.4 | 0.7 | 0.9 | 1.0 | 1.5 |
| Other countries, IMF and IBRD..... | -0.1 | -0.1 | -0.6 | -0.5 | -0.4 | -0.4 | -0.2 | — |

¹ New series.² Exclusive of Government of Canada holdings of gold and foreign exchange.

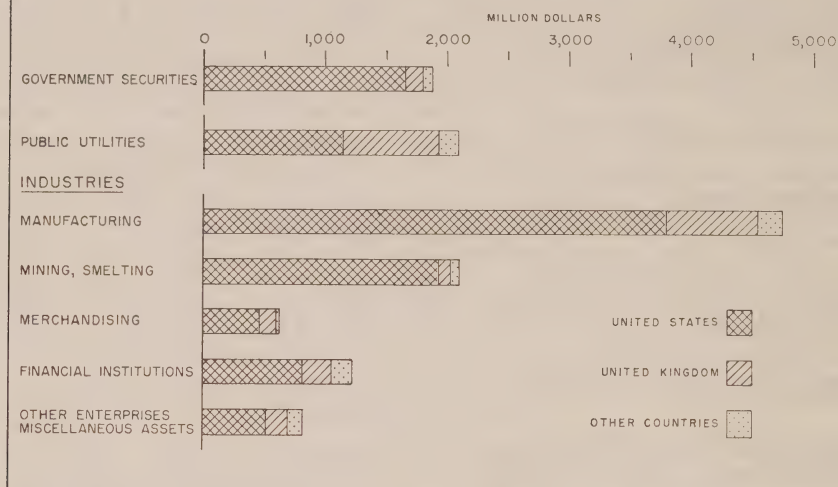
11.—Foreign Capital Invested in Canada by Type of Investment as at Dec. 31, 1939-55

(Millions of dollars)

| Type of Investment | 1939 | 1945 | 1949 | 1950 | 1953 | 1954 | 1955 |
|-----------------------------------|--------------|--------------|--------------|--------------|------------------|---------------|---------------|
| Government Securities— | | | | | | | |
| Federal..... | 823 | 726 | 975 | 1,141 | 744 | 659 | 539 |
| Provincial..... | 536 | 624 | 534 | 565 | 930 | 964 | 888 |
| Municipal..... | 344 | 312 | 246 | 256 | 413 | 433 | 451 |
| Totals, Government Securities... | 1,703 | 1,662 | 1,755 | 1,962 | 2,087 | 2,056 | 1,878 |
| Public Utilities— | | | | | | | |
| Railways..... | 1,871 | 1,599 | 1,445 | 1,446 | 1,424 | 1,428 | 1,360 |
| Other..... | 549 | 494 | 494 | 547 | 680 | 729 | 726 |
| Totals, Public Utilities..... | 2,420 | 2,093 | 1,939 | 1,993 | 2,104 | 2,157 | 2,086 |
| Manufacturing..... | 1,445 | 1,829 | 2,539 | 2,757 | 3,926 | 4,293 | 4,742 |
| Mining and smelting..... | 329 | 403 | 494 | 631 | 1,422 | 1,724 | 2,097 |
| Merchandising..... | 189 | 226 | 300 | 330 | 530 | 580 | 626 |
| Financial institutions..... | 473 | 525 | 548 | 573 | 774 | 1,052 | 1,221 |
| Other enterprises..... | 69 | 70 | 83 | 98 | 151 | 154 | 177 |
| Miscellaneous assets..... | 285 | 284 | 302 | 320 | 467 ¹ | 561 | 641 |
| Totals, Investment..... | 6,913 | 7,092 | 7,960 | 8,664 | 11,461 | 12,577 | 13,468 |
| United States ² | 4,151 | 4,990 | 5,905 | 6,549 | 8,870 | 9,692 | 10,289 |
| United Kingdom ² | 2,476 | 1,750 | 1,715 | 1,750 | 2,008 | 2,181 | 2,347 |
| Other countries..... | 286 | 352 | 340 | 365 | 583 | 704 | 832 |

¹ New series.² Includes some investments held for residents of other countries.

FOREIGN CAPITAL INVESTED IN CANADA CLASSIFIED BY ESTIMATED DISTRIBUTION OF OWNERSHIP AS AT DEC. 31, 1955



12.—Foreign Capital Invested in Canada by Type of Investment, classified by Estimated Distribution of Ownership, as at Dec. 31, 1955

NOTE.—Common and preferred stocks are at book values as shown in the balance sheets of the issuing companies; bonds and debentures are valued at par; and liabilities in foreign currencies are converted into Canadian dollars at par of exchange.

| Type of Investment | Estimated Distribution of Ownership | | | Total Investments of Non-residents |
|------------------------------------|-------------------------------------|-----------------------------|-----------------|------------------------------------|
| | United States ¹ | United Kingdom ¹ | Other Countries | |
| | \$'000,000 | \$'000,000 | \$'000,000 | \$'000,000 |
| Government Securities— | | | | |
| Federal..... | 403 | 67 | 69 | 539 |
| Provincial..... | 836 | 39 | 13 | 888 |
| Municipal..... | 410 | 35 | 6 | 451 |
| Totals, Government Securities..... | 1,649 | 141 | 88 | 1,878 |
| Public Utilities— | | | | |
| Railways..... | 556 | 698 | 106 | 1,360 |
| Other..... | 584 | 87 | 55 | 726 |
| Totals, Public Utilities..... | 1,140 | 785 | 161 | 2,086 |
| Manufacturing..... | 3,790 | 754 | 198 | 4,742 |
| Mining and smelting..... | 1,921 | 101 | 75 | 2,097 |
| Merchandising..... | 459 | 144 | 23 | 626 |
| Financial institutions..... | 817 | 240 | 164 | 1,221 |
| Other enterprises..... | 146 | 25 | 6 | 177 |
| Miscellaneous assets..... | 367 | 157 | 117 | 641 |
| Totals, Investments..... | 10,239 | 2,347 | 832 | 13,468 |

¹ Includes some investments held for residents of other countries.

Canadian Assets Abroad.—While there has been a great growth in non-resident investment in Canada and in the balance of indebtedness to other countries, it will be noted that Canadian assets abroad, shown in Tables 13 and 14, have continued to rise in value each year. These now represent a larger proportion of liabilities abroad than was the case before World War II, but most of the increase since then has been in government-owned assets such as the official reserves and the loans by the Canadian Government to other governments which were extended during the War and early postwar years. In 1955 the government credits outstanding had a value of \$1,635,000,000 while official holdings of exchange amounted to \$1,910,000,000 in terms of Canadian dollars. Other official Canadian assets include Canada's subscriptions to the capital of the International Bank and the International Monetary Fund which, by March 1956, amounted to \$70,900,000 and \$299,700,000 respectively. Later in 1956 there was a subscription to the International Finance Corporation of \$3,500,000.

The portion of the assets in private investments, particularly in the form of direct investments abroad by Canadian companies, is still small in relation to the corresponding non-resident stake in equities in Canada. Private long-term investments abroad by Canadians in 1955 were made up of direct investments of \$1,776,000,000 and portfolio investments of \$989,000,000. More than two-thirds of the privately owned investments were located in the United States. Direct investments in that country by Canadian businesses have been growing particularly rapidly and are mainly in the beverage, farm implement and chemical industries and in railways.

Private investments in overseas countries are widely distributed. About one-half of the total in 1955 were located in Commonwealth countries, divided fairly evenly between the United Kingdom and the remainder of the Commonwealth. Most of the direct investments in the United Kingdom were in industry, while in other Commonwealth countries there were investments in mining and petroleum as well as in industry. In foreign overseas countries the largest part is in the countries of Latin America—some \$320,000,000 in 1954—made up mainly of holdings in public utilities.

13.—Canadian Assets Abroad 1939-55

NOTE.—Excludes investments of insurance companies and banks, Canada's subscriptions to international financial institutions and short-term assets, other than official holdings of gold and foreign exchange. Holdings of stocks are at book values as shown in the books of issuing companies; holdings of bonds are shown at par values. Foreign currencies are converted into Canadian dollars at current market rates. The series for portfolio investment was reconstructed in 1952 and is not strictly comparable with preceding years.

(Millions of dollars)

| Assets | 1939 | 1948 | 1953* | 1954* | 1955 |
|--|--------------|--------------|--------------|--------------|--------------|
| Direct investments in businesses outside Canada..... | 671 | 788 | 1,485 | 1,628 | 1,776 |
| Portfolio holdings of foreign securities..... | 719 | 605 | 869 | 926 | 989 |
| Government credits..... | 31 | 1,878 | 1,778 | 1,705 | 1,635 |
| Official balances abroad and gold..... | 459 | 1,006 | 1,779 | 1,888 | 1,910 |
| Totals..... | 1,880 | 4,277 | 5,911 | 6,147 | 6,310 |

14.—Canadian Assets Abroad by Location of Investment as at Dec. 31, 1955

NOTE.—See headnote to Table 13.

| Location of Investment | Direct Invest- ments | Portfolio Investment | | Government Credits | Official Holdings of Exchange | Total Invest- ments |
|-----------------------------------|----------------------------|-------------------------|------------|-----------------------|--|---------------------------|
| | | Stocks | Bonds | Bonds | Total | |
| | \$'000,000 | \$'000,000 | \$'000,000 | \$'000,000 | \$'000,000 | \$'000,000 |
| United States..... | 1,302 | 536 | 88 | — | 767 | 2,693 |
| United Kingdom..... | 157 | 30 | 17 | 1,202 | 9 | 1,415 |
| Other Commonwealth countries..... | 159 | 7 | 21 | — | — | 187 |
| Other foreign countries..... | 158 | 192 | 98 | 433 | — | 881 |
| Official gold holdings..... | — | — | — | — | 1,134 | 1,134 |
| Totals..... | 1,776 | 765 | 224 | 1,635 | 1,910 | 6,310 |

CHAPTER XXVI.—CURRENCY AND BANKING; MISCELLANEOUS COMMERCIAL FINANCE

CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

PART I.—CURRENCY AND BANKING*

A historical sketch of currency and banking in Canada appears in the 1938 Year Book, pp. 900-905.

Section 1.—The Bank of Canada

The Bank of Canada was incorporated under the Bank of Canada Act 1934 and commenced operations on Mar. 11, 1935.

The Bank of Canada is Canada's central bank and as such its main function is to regulate the total volume of money and credit. The normal way in which this function is performed is through changes in the cash reserves of the chartered banks. Each chartered bank is required by the Bank Act to maintain, on the average during each calendar month, an amount of cash reserves, in the form of Bank of Canada notes and deposits with the Bank of Canada, equal to not less than 8 p.c. of its Canadian dollar deposit liabilities. (Prior to July 1, 1954, each chartered bank was required to maintain at all times, cash reserves equal to not less than 5 p.c. of its Canadian dollar deposit liabilities; in practice the chartered banks normally attempted to maintain a ratio of about 10 p.c.) An increase in cash reserves encourages banks to expand their assets (mainly by purchasing securities and making loans), with a resultant similar increase in their deposit liabilities; a decrease in cash reserves tends to discourage expansion and may result in some contraction. Therefore, by taking steps to alter the volume of cash reserves available to the chartered banks, the Bank of Canada is able to influence the total of chartered bank assets and the total of their Canadian dollar deposit liabilities. The deposit liabilities of the banks, except for those payable to the Government, are of course assets of the general public and, together with currency, comprise their most liquid assets. (See Table 7, p. 1142, for Canadian dollar currency and bank deposits held by the general public.)

Open market operations in Government of Canada securities constitute the chief means by which the Bank of Canada influences the volume of chartered bank reserves. When the Bank of Canada purchases a security it issues a cheque in settlement which, after it is cashed at, or deposited with, a chartered bank by the recipient, is in turn deposited by that chartered bank in its account with the Bank of Canada, thereby increasing its cash reserves. Conversely, when the Bank of Canada sells a security the cheque which

* Except where otherwise indicated, this material has been revised by the Research Division of the Bank of Canada.

it receives in payment is charged against the account of the chartered bank on which it is drawn, thus decreasing that bank's cash reserves. Increases or decreases in other assets and liabilities of the Bank of Canada also have an effect on the chartered banks' cash reserves. For example, an increase in the amount of Bank of Canada notes held by the general public tends to reduce the banks' cash reserves.

The powers of the Bank are set forth in the Bank of Canada Act 1934 (R.S.C. 1952, c. 13), revisions in which were made in 1936, 1938 and 1954. Some of these powers are outlined below.

The Bank of Canada may vary the minimum cash reserve requirements of the chartered banks between 8 p.c. and 12 p.c. of their Canadian dollar deposit liabilities, provided that the chartered banks are given a minimum notice period of one month before each increase becomes effective and that any increase is not more than 1 p.c. during any one month. When this legislation became effective on June 1, 1954, the initial requirement was 8 p.c. and it has since remained at that level.

The Bank may make loans or advances for periods not exceeding six months to chartered banks, or to banks to which the Quebec Savings Bank Act applies, on the pledge or hypothecation of certain classes of securities. Loans or advances on the pledge or hypothecation of readily marketable securities issued or guaranteed by Canada or any province may be made to the Government of Canada or the government of any province for periods not exceeding six months. Other loans may be made to the Government of Canada or the government of any province in amounts not exceeding a fixed proportion of such government's revenue; such loans must be repaid before the end of the first quarter after the end of the fiscal year of the borrower.

The Bank of Canada is required to make public at all times the minimum rate at which it is prepared to make loans or advances. This rate, known as the Bank Rate, stood at 2 p.c. per annum from Oct. 17, 1950, to Feb. 14, 1955, when it was reduced to $1\frac{1}{2}$ p.c. It was raised to 2 p.c. on Aug. 5, 1955, to $2\frac{1}{4}$ p.c. on Oct. 12, 1955, to $2\frac{3}{4}$ p.c. on Nov. 18, 1955, to 3 p.c. on Apr. 4, 1956, to $3\frac{1}{4}$ p.c. on Aug. 10, 1956, and to $3\frac{1}{2}$ p.c. on Oct. 17, 1956. Effective Nov. 1, 1956, the Bank of Canada announced that henceforth until further notice the Bank Rate would be established weekly at a fixed margin of $\frac{1}{4}$ of 1 p.c. above the latest weekly average tender rate for 91-day treasury bills. The Bank Rate rose from 3.92 p.c. at the end of 1956 to a high of 4.33 p.c. in August 1957 and then declined to 3.87 p.c. at the year-end.

The Bank has the sole right to issue paper money for circulation in Canada. Details regarding the note issue are given on p. 1140.

The Bank acts as the fiscal agent for the Government of Canada in the payment of interest and principal and generally in respect of the management of the public debt of Canada.

The Bank may buy and sell securities issued or guaranteed by Canada or any province, short-term securities issued by the United Kingdom, treasury bills or other obligations of the United States, and certain classes of short-term commercial paper. The Bank is authorized by the Industrial Development Bank Act to purchase bonds and debentures issued by the Industrial Development Bank. The Bank may buy and sell gold, silver, nickel and bronze coin, and gold and silver bullion, and may also deal in foreign exchange. The Bank may accept deposits that do not bear interest from the Government of Canada, the government of any province, any chartered bank or any bank to which the Quebec Savings Bank Act applies. The Bank does not accept deposits from individuals and does not compete with the chartered banks in commercial banking fields.

Sect. 23 of the Bank of Canada Act provides that the Bank shall maintain a reserve of gold equal to not less than 25 p.c. of its outstanding notes and deposit liabilities. This requirement was suspended in 1940 when, under the terms of the Exchange Fund Order, the Bank's gold holdings were transferred to the Exchange Fund Account to form part of Canada's official gold and United States dollar reserves. The Currency, Mint and Exchange Fund Act passed in 1952 provides that, notwithstanding Sect. 23 of the Bank of Canada Act, the Bank of Canada is not required to maintain a minimum or fixed ratio of gold or foreign exchange to its liabilities unless the Governor in Council otherwise prescribes.

The Bank is under the management of a Board of Directors composed of a Governor, a Deputy Governor and twelve Directors. The Governor and Deputy Governor are appointed for terms of seven years each by the Directors, with the approval of the Governor General in Council. The Directors are appointed by the Minister of Finance, with the approval of the Governor General in Council, for terms of three years each. The Deputy Minister of Finance is a member of the Board but does not have the right to vote. There is an Executive Committee of the Board composed of the Governor, the Deputy Governor, one Director and the Deputy Minister of Finance (who is without a vote) which has the same powers as the Board except that its every decision must be submitted to the Board at its next meeting. In addition to the Deputy Governor who is a member of the Board, there may be one or more Deputy Governors appointed by the Board of Directors to perform such duties as are assigned by the Board.

The Governor is the chief executive officer of the Bank and Chairman of the Board of Directors. The Governor has the power to veto any action or decision of the Board of Directors or of the Executive Committee but such veto is subject to confirmation or disallowance by the Governor General in Council. In the absence of the Governor, the Deputy Governor, who is a member of the Board, exercises all the powers and functions of the Governor.

The capital of the Bank is \$5,000,000 and is entirely held by the Minister of Finance. The Bank of Canada Act as amended in 1954 provides that each year 20 p.c. of the Bank's annual profits (after provision for depreciation in assets, pension funds and such matters) shall be allocated to the Rest Fund until the Rest Fund reaches an amount five times the paid-up capital of the Bank and the remainder shall be paid to the Receiver General and placed to the credit of the Consolidated Revenue Fund. At the end of 1957, the Rest Fund of the Bank reached its maximum of \$25,000,000 so that, since that date, the whole of the Bank's profits have been transferred to the Receiver General.

The head office of the Bank is at Ottawa. It has agencies at Halifax, Saint John, Montreal, Ottawa, Toronto, Winnipeg, Regina, Calgary and Vancouver and is represented in St. John's and Charlottetown. The agencies are chiefly concerned with the functions of the Bank as fiscal agent for the Government of Canada and with the issue and redemption of currency. The Industrial Development Bank, which is described on pp. 1138-1139, is a subsidiary of the Bank of Canada.

The Bank of Canada Act requires that statements of the assets and liabilities of the Bank on each Wednesday and the last day of each month be published in the *Canada Gazette*. A summary of the statement as at Dec. 31, 1955-57, appears in Table 1.

1.—Assets and Liabilities of the Bank of Canada as at Dec. 31, 1955-57

| Item | 1955 | 1956 | 1957 |
|--|----------------|----------------------|----------------|
| | \$'000,000 | \$'000,000 | \$'000,000 |
| Assets | | | |
| Foreign exchange..... | 57.6 | 61.0 | 63.6 |
| Advances to chartered and savings banks..... | 2.0 | — | — |
| Investments— | | | |
| Treasury bills of Canada..... | 262.6 | 505.2 | 467.1 |
| Other securities issued or guaranteed by Canada maturing within 2 years..... | 1,021.2 | 519.7 ¹ | 779.2 |
| Other securities issued or guaranteed by Canada not maturing within 2 years..... | 1,083.7 | 1,369.0 ¹ | 1,181.2 |
| Bonds and debentures issued by Industrial Development Bank..... | 10.1 | 23.0 | 36.2 |
| Other securities..... | 57.1 | 16.7 | 16.7 |
| Industrial Development Bank capital stock..... | 25.0 | 25.0 | 25.0 |
| Bank premises..... | 4.9 | 5.8 | 8.6 |
| All other assets..... | 96.1 | 22.3 | 81.1 |
| Totals, Assets..... | 2,620.2 | 2,547.7 | 2,658.7 |

¹ On Dec. 31, 1956, the basis for the valuation of securities held by the Bank of Canada was changed from "not excluding market value" to amortized value; thus figures for that date are not comparable with those for Dec. 31 of earlier years.

1.—Assets and Liabilities of the Bank of Canada as at Dec. 31, 1955-57—concluded

| Item | 1955 | 1956 | 1957 |
|-----------------------------------|----------------|----------------|----------------|
| | \$'000,000 | \$'000,000 | \$'000,000 |
| Liabilities | | | |
| Capital paid up..... | 5.0 | 5.0 | 5.0 |
| Reserve Fund..... | 20.4 | 25.0 | 25.0 |
| Notes in Circulation— | | | |
| Held by chartered banks..... | 289.4 | 370.9 | 348.6 |
| All other..... | 1,449.0 | 1,497.8 | 1,555.1 |
| Deposits— | | | |
| Government of Canada..... | 89.2 | 38.8 | 35.4 |
| Chartered banks..... | 551.0 | 511.5 | 517.6 |
| Other..... | 34.0 | 31.2 | 31.2 |
| Foreign currency liabilities..... | 98.0 | 62.2 | 70.0 |
| All other liabilities..... | 84.1 | 5.4 | 70.8 |
| Totals, Liabilities..... | 2,620.2 | 2,547.7 | 2,658.7 |

The Industrial Development Bank.—The Industrial Development Bank, a subsidiary of the Bank of Canada, was incorporated by Act of Parliament during 1944 and its banking operations commenced on Nov. 1, 1944. Its functions are described in the preamble to the Act as follows:—

“To promote the economic welfare of Canada by increasing the effectiveness of monetary action through ensuring the availability of credit to industrial enterprises which may reasonably be expected to prove successful if a high level of national income and employment is maintained, by supplementing the activities of other lenders and by providing capital assistance to industry with particular consideration to the financing problems of small enterprises.”

The President of the Industrial Development Bank is the Governor of the Bank of Canada and the Directors are the Directors of the Bank of Canada. The \$25,000,000 capital stock of the Bank (completely paid up) was subscribed by the Bank of Canada. The Industrial Development Bank may also raise funds by the issue of bonds and debentures provided that its total direct liabilities and contingent liabilities in the form of guarantees and underwriting agreements do not exceed three times the aggregate of the Bank's paid-up capital and Reserve Fund.

The lending powers of the Bank may be extended only to industrial enterprises in Canada with respect to which it is empowered to:—

- (1) lend money or guarantee loans;
- (2) enter into underwriting agreements with regard to any issue of stock, bonds or debentures;
- (3) acquire stock, bonds or debentures from the issuing corporation or any person with whom the Bank has entered into an underwriting agreement.

Industrial enterprises as defined by the Act (amended in 1956) include: (1) manufacturing, processing, assembling, installing, overhauling, reconditioning, altering, repairing, cleaning, packaging, transporting or warehousing of goods; (2) logging, operating a mine or quarry, drilling, construction, engineering, technical surveys or scientific research; (3) generating or distributing electricity or operating a commercial air service, or the transportation of persons, or (4) supplying premises, machinery or equipment for any business mentioned in (1), (2) or (3) under a lease, contract or other arrangement whereby title to the premises, machinery or equipment is retained by the supplier.

The Bank may accept any form of collateral security against its advances, including real property.

The Industrial Development Bank is intended to supplement the activities of other lending agencies, not to compete with them, and the Act of incorporation requires that it should extend credit only when the Board of Directors is of the opinion that similar credit would not be available elsewhere on reasonable terms and conditions. The Bank is specifically prohibited from engaging in the business of deposit banking.

2.—Authorized and Outstanding Loans and Investments of the Industrial Development Bank by Province and Industrial Enterprise as at Sept. 30, 1956 and 1957

| Province, Size of Loan and Industrial Enterprise | 1956 | | 1957 | |
|--|---------------|---------------|----------------|---------------|
| | Authorized | Outstanding | Authorized | Outstanding |
| | \$'000 | \$'000 | \$'000 | \$'000 |
| Province | | | | |
| Newfoundland..... | 178 | 152 | 433 | 315 |
| Prince Edward Island..... | 5,540 | 1,921 | 5,549 | 1,308 |
| Nova Scotia..... | 869 | 561 | 1,722 | 1,040 |
| New Brunswick..... | 2,398 | 613 | 1,947 | 1,083 |
| Quebec..... | 32,957 | 19,362 | 36,747 | 23,222 |
| Ontario..... | 27,081 | 17,545 | 33,916 | 23,752 |
| Manitoba..... | 4,253 | 1,427 | 5,090 | 3,793 |
| Saskatchewan..... | 798 | 394 | 1,616 | 562 |
| Alberta..... | 4,158 | 2,109 | 5,658 | 3,642 |
| British Columbia..... | 14,655 | 8,068 | 18,265 | 12,959 |
| Yukon and Northwest Territories..... | 205 | 145 | 579 | 255 |
| Canada..... | 93,092 | 52,297 | 111,522 | 71,931 |
| Size of Loans | | | | |
| | \$'000 | No. | \$'000 | No. |
| \$5,000 or under..... | 37 | 9 | 44 | 10 |
| \$5,001 to \$25,000..... | 4,212 | 250 | 5,178 | 307 |
| \$25,001 to \$50,000..... | 7,829 | 203 | 9,723 | 250 |
| \$50,001 to \$100,000..... | 13,217 | 173 | 17,445 | 231 |
| \$100,001 to \$200,000..... | 15,647 | 102 | 18,948 | 124 |
| \$200,001 or over..... | 52,150 | 84 | 60,184 | 106 |
| Totals..... | 93,092 | 821 | 111,522 | 1,028 |
| Industrial Enterprise | | | | |
| | \$'000 | \$'000 | \$'000 | \$'000 |
| Foods and beverages..... | 7,970 | 4,047 | 9,504 | 5,565 |
| Rubber products..... | 220 | 193 | 245 | 167 |
| Leather products..... | 383 | 129 | 368 | 221 |
| Textile products (except clothing)..... | 4,792 | 3,064 | 4,829 | 3,250 |
| Clothing (textiles and fur)..... | 2,967 | 1,927 | 3,233 | 2,189 |
| Wood products..... | 12,159 | 6,825 | 13,944 | 9,155 |
| Paper products (including pulp)..... | 6,220 | 4,169 | 6,416 | 5,407 |
| Printing, publishing and allied industries..... | 2,063 | 1,127 | 2,345 | 1,400 |
| Iron and steel products (including machinery and equipment)..... | 9,734 | 5,927 | 12,440 | 7,370 |
| Transportation equipment..... | 4,283 | 1,232 | 3,946 | 2,814 |
| Non-ferrous metal products..... | 1,347 | 925 | 2,062 | 1,380 |
| Electrical apparatus and supplies..... | 4,489 | 3,097 | 4,991 | 3,456 |
| Non-metallic mineral products..... | 6,889 | 4,679 | 8,661 | 5,801 |
| Products of petroleum and coal..... | 1,499 | 1,290 | 1,483 | 1,185 |
| Chemical products..... | 5,756 | 4,240 | 6,163 | 4,003 |
| Miscellaneous manufacturing industries..... | 1,921 | 1,123 | 2,141 | 1,277 |
| Transportation and storage..... | 17,126 | 8,152 | 21,662 | 11,869 |
| Generating or distributing of electricity..... | 35 | 26 | 80 | 68 |
| Mining..... | 2,101 | — | 2,626 | 2,521 |
| Construction..... | 285 | 50 | 1,197 | 949 |
| Industrial buildings..... | 353 | 45 | 2,264 | 1,360 |
| Industrial and technical services..... | 500 | — | 922 | 524 |
| Totals..... | 93,092 | 52,297 | 111,522 | 71,931 |

Section 2.—Currency

Subsection 1.—Notes and Coinage

Note Circulation.—The development by which bank notes became the chief circulating medium in Canada prior to 1935 is described in the 1938 Year Book, pp. 900-905. Those features of the development which then became permanent are outlined in the 1941 Year Book, pp. 809-810.

When the Bank of Canada commenced operations in 1935 it assumed liability for Dominion notes outstanding. These were replaced in public circulation and partly replaced in cash reserves by the Bank's legal tender notes in denominations of \$1, \$2, \$5, \$10, \$20, \$50 and \$100. Deposits of chartered banks at the Bank of Canada completed the replacement of the old Dominion notes of \$1,000 to \$50,000 denomination that had previously been used as cash reserves.

The chartered banks were required under the Bank Act of 1934 to reduce gradually the issue of their own bank notes during the years 1935-45 to an amount not in excess of 25 p.c. of their paid-up capital on Mar. 11, 1935. Bank of Canada notes thus replaced chartered bank notes as the issue of the latter was reduced. Further restrictions introduced by the 1944 revisions of the Bank Act cancelled the right of chartered banks to issue or re-issue notes after Jan. 1, 1945, and in January 1950 the chartered banks' liability for such of their notes issued for circulation in Canada as then remained outstanding was transferred to the Bank of Canada in return for payment of a like sum to the Bank of Canada.

The classification of Bank of Canada notes in circulation by denomination shown in Table 3 for 1953-57 is not strictly comparable with the classification for earlier years. Dominion notes have been excluded from the denomination classification and the total only is shown. Also an item has been added showing the outstanding chartered bank notes issued originally for circulation in Canada. The statistics of total notes in the hands of the general public are comparable with earlier years.

3.—Bank of Canada Notes by Denomination and Other Notes in Circulation as at Dec. 31, 1953-57

| Denomination | 1953 | 1954 | 1955 | 1956 | 1957 |
|---------------------------|---------------|---------------|---------------|---------------|---------------|
| | \$ | \$ | \$ | \$ | \$ |
| Bank of Canada Notes— | | | | | |
| \$1..... | 59,177,372 | 62,160,634 | 65,490,666 | 70,270,255 | 72,642,752 |
| \$2..... | 42,795,783 | 44,679,550 | 47,372,696 | 50,371,423 | 51,994,063 |
| \$5..... | 120,688,495 | 122,423,538 | 130,931,243 | 138,004,315 | 139,929,348 |
| \$10..... | 475,247,695 | 469,294,860 | 499,587,455 | 528,740,945 | 528,792,055 |
| \$20..... | 446,293,020 | 453,120,810 | 493,654,730 | 555,755,460 | 582,319,490 |
| \$25..... | 46,425 | 46,425 | 46,350 | 46,350 | 46,350 |
| \$50..... | 125,318,100 | 123,729,475 | 127,747,300 | 134,380,725 | 134,820,600 |
| \$100..... | 304,696,950 | 323,084,450 | 347,255,500 | 364,052,100 | 365,502,850 |
| \$500..... | 76,500 | 68,500 | 63,000 | 57,500 | 51,000 |
| \$1,000..... | 9,805,000 | 10,353,000 | 12,201,000 | 13,233,000 | 14,661,000 |
| Totals..... | 1,584,145,340 | 1,608,961,241 | 1,724,349,939 | 1,854,912,073 | 1,890,759,508 |
| Provincial notes..... | 27,568 | 27,568 | 27,568 | 27,568 | 27,568 |
| Dominion notes..... | 4,665,188 | 4,660,752 | 4,654,858 | 4,650,792 | 4,647,987 |
| Defunct bank notes..... | 88,463 | 88,232 | 88,181 | 88,161 | 88,156 |
| Chartered bank notes..... | 10,198,230 | 9,719,115 | 9,370,277 | 9,025,187 | 8,798,824 |
| Grand Totals..... | 1,599,124,739 | 1,623,456,907 | 1,738,490,823 | 1,868,703,781 | 1,904,322,043 |

4.—Note Circulation in the Hands of the Public as at Dec. 31, 1948-57

NOTE.—Newfoundland has long used Canadian bank notes so that when that Province united with Canada in 1949 no adjustment was necessary in the circulation figures, but the effect of including the population of Newfoundland from 1949 was to reduce the per capita note circulation by an estimated \$1.

| Year Ended Dec. 31— | Bank of Canada Notes ¹ | Chartered Bank Notes ² | Total | Per Capita ³ |
|---------------------|---|---|---------------|----------------------------|
| | \$ | \$ | \$ | \$ |
| 1948..... | 1,098,290,534 | 16,246,036 | 1,114,536,570 | 86.92 |
| 1949..... | 1,095,652,035 | 13,990,117 | 1,109,642,152 | 82.52 |
| 1950..... | 1,136,115,742 | 4 | 1,136,115,742 | 82.86 |
| 1951..... | 1,191,091,182 | 4 | 1,191,091,182 | 85.02 |
| 1952..... | 1,288,688,392 | 4 | 1,288,688,392 | 89.31 |
| 1953..... | 1,335,332,954 | 4 | 1,335,332,954 | 90.34 |
| 1954..... | 1,361,874,433 | 4 | 1,361,874,433 | 89.63 |
| 1955..... | 1,449,045,166 | 4 | 1,449,045,166 | 92.88 |
| 1956..... | 1,497,765,781 | 4 | 1,497,765,781 | 93.14 |
| 1957..... | 1,555,115,143 | 4 | 1,555,115,143 | 93.74 |

¹ Total issue less notes held by chartered banks.

² Gross note circulation only; notes held by other

chartered banks are not available. Includes, prior to 1950, a relatively small amount issued for circulation outside Canada.

³ Figures based on estimates of population as given at p. 119; see headnote to this table. ⁴ In January 1950, the chartered banks' liability for such of their notes issued for circulation in Canada as then remained outstanding was transferred to the Bank of Canada.

Coinage.—Under the Currency, Mint and Exchange Fund Act (R.S.C. 1952, c. 315), gold coins may be issued in denominations of twenty dollars, ten dollars and five dollars (nine-tenths fine or millesimal fineness, 900). Subsidiary coins include: silver coins in denominations of one dollar, 50 cents, 25 cents, 10 cents (eight-tenths fine or millesimal fineness, 800); pure nickel five-cent coins; and bronze (copper, tin and zinc) one-cent coins. Provision is made for the temporary alteration of composition in event of a shortage of prescribed metals. A tender of payment of money in coins is a legal tender in the case of gold coins for the payment of any amount; in the case of silver coins for the payment of an amount up to \$10; nickel coins for payment up to \$5; and bronze coins up to 25 cents.

5.—Canadian Coin in Circulation as at Dec. 31, 1948-57

NOTE.—The figures shown are of net issues of coin. Figures from 1901 are shown in the corresponding table of previous Year Books beginning with the 1927-28 edition.

| Year Ended Dec. 31— | Silver | Nickel | Tombac ¹ | Steel | Bronze | Total | Per Capita ² |
|---------------------|-------------|-----------|---------------------|-----------|------------|-------------|-------------------------|
| | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| 1948..... | 63,829,640 | 6,117,555 | 730,064 | 1,520,210 | 9,088,221 | 81,285,690 | 6.34 |
| 1949..... | 67,874,750 | 6,753,780 | 661,333 | 1,519,743 | 9,407,325 | 86,216,931 | 6.41 |
| 1950..... | 73,473,724 | 7,393,138 | 621,440 | 1,519,419 | 10,012,143 | 93,019,864 | 6.78 |
| 1951..... | 78,658,143 | 7,815,103 | 599,655 | 1,701,849 | 10,794,169 | 99,548,919 | 7.11 |
| 1952..... | 83,463,939 | 7,814,398 | 584,882 | 2,278,329 | 11,476,591 | 105,618,139 | 7.32 |
| 1953..... | 89,550,236 | 7,813,081 | 570,847 | 3,109,691 | 12,130,181 | 113,174,036 | 7.66 |
| 1954..... | 91,350,637 | 7,810,723 | 560,577 | 3,458,758 | 12,392,389 | 115,573,084 | 7.60 |
| 1955..... | 95,574,457 | 8,076,800 | 555,912 | 3,457,712 | 12,956,807 | 120,621,688 | 7.62 |
| 1956..... | 100,922,477 | 8,545,507 | 552,868 | 3,456,782 | 13,742,282 | 127,219,916 | 7.87 |
| 1957..... | 107,116,450 | 8,910,869 | 550,743 | 3,455,886 | 14,745,243 | 134,779,191 | 7.98 |

¹ Tombac, a copper-zinc alloy, was used to conserve nickel for war purposes; no coins of this metal have been issued since 1944.

² Per capita figures are based on estimates of population as given at p. 119.

The Royal Canadian Mint.—The Mint at Ottawa was established as a branch of the Royal Mint under the (Imperial) Coinage Act 1870 and opened on Jan. 2, 1908. In 1931 (21-22 Geo. V, c. 48) it was constituted a branch of the Canadian Department of Finance and has since operated as the Royal Canadian Mint. From 1858 the British North American provinces, and later Canada, obtained their coins from the Royal Mint at London or from The Mint, Birmingham. Before that date, coins were mainly British, United States and Spanish. In its earlier years the operations of the Mint in Canada

were confined to the production of gold, silver and bronze coins for domestic circulation and of British sovereigns and small coins struck under contract for Newfoundland and Jamaica.

Before 1914 only small quantities of gold bullion were refined but during World War I the Mint came to the assistance of the British Government by establishing a refinery in which nearly 20,000,000 oz. t. of South African gold were treated on Bank of England account. The subsequent development of the gold mining industry in Canada resulted in gold refining becoming one of the principal activities of the Mint. Fine gold produced from the rough bullion shipments received from the mines is purchased by the Mint and later delivered to the Bank of Canada for account of the Minister of Finance in bars of approximately 400 oz. t. each or, for those mines authorized to sell gold in the open market, the bullion is shipped to various domestic and foreign processors. The fine silver extracted from the rough gold is generally used for coinage purposes.

6.—Annual Receipts of Gold Bullion at the Royal Canadian Mint and Bullion and Coinage Issued 1948-57

NOTE.—Figures from 1926 are given in the corresponding table of previous Year Books beginning with the 1946 edition.

| Year | Gold Received | Gold Bullion Issued | Silver Coin Issued | Nickel Coin Issued | Steel Coin Issued | Bronze Coin Issued |
|-----------|---------------|---------------------|--------------------|--------------------|-------------------|--------------------|
| | oz. t. | oz. t. | \$ | \$ | \$ | \$ |
| 1948..... | 3,401,991 | 3,405,073 | 2,829,956 | 615,500 | — | 708,300 |
| 1949..... | 3,925,618 | 3,865,296 | 4,148,842 | 637,500 | — | 321,901 |
| 1950..... | 4,422,968 | 4,347,961 | 5,641,805 | 640,510 | — | 607,003 |
| 1951..... | 4,169,480 | 4,167,485 | 5,213,677 | 423,003 | 182,829 | 783,329 |
| 1952..... | 3,953,158 | 4,031,063 | 4,869,552 | 597 | 576,965 | 683,820 |
| 1953..... | 3,684,074 | 3,626,497 | 6,138,686 | 234 | 831,915 | 655,130 |
| 1954..... | 3,829,431 | 3,998,836 | 1,864,968 | 27 | 350,229 | 263,897 |
| 1955..... | 3,947,637 | 3,952,764 | 4,269,157 | 267,801 | — | 566,863 |
| 1956..... | 3,801,789 | 3,774,599 | 5,389,464 | 469,993 | — | 786,855 |
| 1957..... | 3,896,084 | 3,776,711 | 6,236,429 | 366,493 | — | 1,004,221 |

Subsection 2.—Canadian Dollar Currency and Bank Deposits Held by the General Public

Bank of Canada statistics concerning the dollar currency and bank deposits held by the general public are given in Table 7.

7.—Canadian Dollar Currency and Bank Deposits Held by the General Public as at Dec. 31, 1948-57

(Millions of dollars)

| Year Ended Dec. 31— | Currency Outside Banks | | | Chartered Bank Deposits | | | Total Currency and Chartered Bank Deposits ¹ | |
|---------------------|------------------------|------|-------|---------------------------|-----------------------------|--------------------|---|-------------------------------------|
| | Notes | Coin | Total | Personal Savings Deposits | Other Deposits ¹ | Total ¹ | Excluding Personal Savings Deposits | Including Personal Savings Deposits |
| 1948..... | 1,115 | 70 | 1,185 | 3,752 | 2,725 | 6,477 | 3,910 | 7,662 |
| 1949..... | 1,110 | 74 | 1,184 | 4,086 | 2,776 | 6,862 | 3,960 | 8,046 |
| 1950..... | 1,136 | 78 | 1,214 | 4,176 | 3,116 | 7,292 | 4,330 | 8,506 |
| 1951..... | 1,191 | 84 | 1,275 | 4,296 | 3,100 | 7,396 | 4,375 | 8,671 |
| 1952..... | 1,289 | 88 | 1,377 | 4,600 | 3,281 | 7,881 | 4,658 | 9,258 |
| 1953..... | 1,335 | 94 | 1,429 | 4,756 | 3,129 | 7,885 | 4,558 | 9,314 |
| 1954..... | 1,362 | 96 | 1,458 | 5,218 | 3,462 | 8,680 | 4,920 | 10,137 |
| 1955..... | 1,449 | 101 | 1,550 | 5,633 | 3,697 | 9,330 | 5,248 | 10,881 |
| 1956..... | 1,498 | 108 | 1,605 | 6,007 | 3,580 | 9,587 | 5,185 | 11,192 |
| 1957..... | 1,555 | 112 | 1,667 | 6,248 | 3,585 | 9,833 | 5,253 | 11,500 |

¹ Less total float, i.e., cheques and other items in transit (net). Excludes Government of Canada deposits.

Section 3.—Commercial Banking

As one of the chief functions of the early banks in Canada was to issue notes to provide a convenient currency or circulating medium, it has been expedient to cover both currency and banking in one historical sketch, which is given in the 1938 Year Book, pp. 900-905. A list of the banks at Confederation appears in the 1940 Year Book, p. 897, and bank absorptions since 1867 are given in the 1941 edition, pp. 812-813. A table in the 1937 Year Book, pp. 894-895, shows the insolvencies from Confederation; the last insolvency occurred in 1923. The more important of the revisions in banking legislation contained in the 1954 Bank Act are outlined in Subsection 1.

Subsection 1.—Chartered Banks

Canadian commercial banks are chartered or licensed by the Government of Canada and operate under one federal statute—the Bank Act—which is revised every ten years and brought into line with changing economic conditions. In addition to conducting a commercial banking business the chartered banks hold most of the public's savings deposits. The last revision of the Bank Act took place in 1954. An outline of the revisions made at that time is given in the 1956 Year Book, pp. 1109-1110.

Liquid Asset Ratio.—In the course of discussions with the chartered banks in November and December 1955, the Bank of Canada urged the adoption of a standard practice regarding the maintenance of a minimum ratio of liquid assets (cash, day-to-day loans and treasury bills) to deposits. The purpose of this suggestion was to establish a working principle of bank operations which would help the central bank in the task of restraining inflationary pressures that might threaten in the future. After discussion the banks agreed to work to achieve by May 31, 1956, a minimum liquid asset ratio of 15 p.c. which they would endeavour to maintain on a daily average basis from June on. On this basis, fluctuations above or below 15 p.c. might occur from day to day or week to week, but for the month as a whole the average would not be below the target ratio. From June 1956 the banks have maintained a daily average ratio of at least 15 p.c.

Branches of Chartered Banks.—Although there are fewer chartered banks now than at the beginning of the century, there has been a great increase in the number of branch banking offices. As a result of amalgamations, the number of banks declined from 34 in 1901 to 10 in 1931, and remained at that figure until the incorporation of a new bank—the Mercantile Bank of Canada—in 1953 brought the total to 11. Since then the amalgamation in 1955 of the Bank of Toronto and the Dominion Bank as the Toronto-Dominion Bank, and the amalgamation of Barclays Bank (Canada) with the Imperial Bank of Canada in 1956 has reduced this number to nine. The number of branches of chartered banks in each province from 1868 is given in Table 8.

8.—Branches of Chartered Banks by Province as at Dec. 31 for Certain Years 1868-1957

NOTE.—Figures for 1920 and subsequent years include sub-agencies in Canada receiving deposits for the banks employing them; there were 718 such sub-agencies in 1957.

| Province or Territory | 1868 | 1902 | 1905 | 1920 | 1926 | 1930 | 1940 | 1943 | 1946 | 1950 | 1955 | 1956 | 1957 |
|---------------------------|------------|------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| Newfoundland..... | — | — | — | — | — | — | — | — | — | 39 | 52 | 55 | 59 |
| Prince Edward Island..... | — | 9 | 10 | 41 | 28 | 28 | 25 | 23 | 23 | 23 | 24 | 24 | 24 |
| Nova Scotia..... | 5 | 89 | 101 | 169 | 134 | 138 | 134 | 126 | 127 | 144 | 152 | 156 | 160 |
| New Brunswick..... | 4 | 35 | 49 | 121 | 101 | 102 | 97 | 93 | 96 | 100 | 109 | 109 | 110 |
| Quebec..... | 12 | 137 | 196 | 1,150 | 1,072 | 1,183 | 1,083 | 1,041 | 1,067 | 1,164 | 1,280 | 1,318 | 1,338 |
| Ontario..... | 100 | 349 | 549 | 1,586 | 1,326 | 1,409 | 1,208 | 1,092 | 1,117 | 1,257 | 1,484 | 1,544 | 1,586 |
| Manitoba..... | — | 52 | 95 | 349 | 224 | 239 | 162 | 148 | 151 | 165 | 187 | 200 | 207 |
| Saskatchewan..... | — | 30 | 87 | 591 | 427 | 447 | 233 | 213 | 226 | 238 | 261 | 265 | 269 |
| Alberta..... | — | — | — | 424 | 269 | 304 | 172 | 163 | 190 | 246 | 307 | 322 | 338 |
| British Columbia..... | 2 | 46 | 55 | 242 | 186 | 229 | 192 | 180 | 216 | 294 | 382 | 414 | 437 |
| Yukon and N.W.T..... | — | — | 3 | 3 | 3 | 4 | 5 | 5 | 6 | 9 | 8 | 9 | 10 |
| Canada..... | 123 | 747 | 1,145 | 4,676 | 3,770 | 4,083 | 3,311 | 3,084 | 3,219 | 3,679 | 4,246 | 4,416 | 4,538 |

9.—Branches of Individual Canadian Chartered Banks by Province as at Dec. 31, 1957

NOTE.—This table includes 718 sub-agencies in Canada for receiving deposits.

| Bank | Nfld. | P.E.I. | N.S. | N.B. | Que. | Ont. |
|-----------------------------------|------------|------------|------------|------------|------------------------|--------------|
| No. | No. | No. | No. | No. | No. | No. |
| Bank of Canada..... | — | — | 1 | 1 | 1 | 2 |
| Bank of Montreal..... | 16 | 1 | 21 | 16 | 138 | 261 |
| Bank of Nova Scotia..... | 23 | 8 | 47 | 37 | 42 | 202 |
| Banque Canadienne Nationale..... | — | — | — | — | 564 | 19 |
| Banque Provinciale du Canada..... | — | 3 | — | 18 | 303 | 23 |
| Canadian Bank of Commerce..... | 5 | 6 | 21 | 10 | 106 | 332 |
| Imperial Bank of Canada..... | — | — | 1 | 1 | 21 | 167 |
| Mercantile Bank of Canada..... | — | — | — | — | 1 | 1 |
| Royal Bank of Canada..... | 15 | 5 | 67 | 23 | 113 | 290 |
| Toronto-Dominion Bank..... | — | 1 | 2 | 4 | 49 | 289 |
| Totals..... | 59 | 24 | 160 | 110 | 1,338 | 1,586 |
| | Man. | Sask. | Alta. | B.C. | Yukon and N.W.T. | Total |
| | No. | No. | No. | No. | No. | No. |
| Bank of Canada..... | 1 | 1 | 1 | 1 | — | 9 |
| Bank of Montreal..... | 34 | 44 | 78 | 104 | 2 | 715 |
| Bank of Nova Scotia..... | 16 | 28 | 43 | 52 | — | 498 |
| Banque Canadienne Nationale..... | 4 | — | — | — | — | 587 |
| Banque Provinciale du Canada..... | — | — | — | — | — | 347 |
| Canadian Bank of Commerce..... | 46 | 52 | 69 | 116 | 4 | 767 |
| Imperial Bank of Canada..... | 11 | 27 | 42 | 27 | 1 | 298 |
| Mercantile Bank of Canada..... | — | — | — | 1 | — | 3 |
| Royal Bank of Canada..... | 63 | 81 | 68 | 99 | 3 | 827 |
| Toronto-Dominion Bank..... | 32 | 36 | 37 | 37 | — | 487 |
| Totals..... | 207 | 269 | 338 | 437 | 10 | 4,538 |

10.—Branches of Individual Canadian Chartered Banks outside Canada as at Dec. 31, 1955-57

NOTE.—This table does not include 15 sub-agencies operating outside Canada.

| Bank and Location | 1955 | 1956 | 1957 | Bank and Location | 1955 | 1956 | 1957 |
|----------------------------|------|------|------|--------------------------------|------------|------------|------------|
| No. | No. | No. | No. | No. | No. | No. | No. |
| Bank of Montreal— | | | | Royal Bank of Canada— | | | |
| United Kingdom..... | 2 | 2 | 2 | United Kingdom..... | 2 | 2 | 2 |
| United States..... | 2 | 2 | 2 | British West Indies..... | 17 | 18 | 21 |
| France..... | — | 3 | 3 | United States..... | 1 | 1 | 1 |
| Germany..... | — | 3 | 4 | Cuba..... | 19 | 19 | 20 |
| Bank of Nova Scotia— | | | | Puerto Rico..... | 3 | 3 | 4 |
| United Kingdom..... | 1 | 1 | 2 | Central and South America..... | 25 | 25 | 26 |
| British West Indies..... | 18 | 22 | 24 | Haiti..... | — | 1 | 1 |
| Dominican Republic..... | 1 | 2 | 2 | Dominican Republic..... | 6 | 5 | 6 |
| United States..... | 1 | 1 | 1 | France..... | 1 | 1 | 1 |
| Cuba..... | 8 | 8 | 8 | Toronto-Dominion— | | | |
| Puerto Rico..... | 3 | 3 | 3 | United Kingdom..... | 1 | 1 | 1 |
| Trinidad..... | 1 | 1 | 1 | United States..... | 1 | 1 | 1 |
| Canadian Bank of Commerce— | | | | Banque Canadienne Nationale— | | | |
| United Kingdom..... | 1 | 1 | 2 | France..... | 1 | 1 | 1 |
| British West Indies..... | 3 | 4 | 5 | Totals..... | 123 | 136 | 149 |
| United States..... | 5 | 5 | 5 | | | | |

Financial Statistics of the Chartered Banks.—The classification of chartered bank assets and liabilities was revised by the Bank of Canada Act 1954, so that some of the statistics given in the following tables are not comparable with those appearing in earlier editions of the Year Book. Figures shown in Tables 11 to 13 prior to July 1954 have been adjusted to comply with the new classification. Month-end data are available from Dec. 31, 1954, to date in the Bank of Canada *Statistical Summary*.

11.—Assets and Liabilities of the Chartered Banks as at Dec. 31, 1948-57

(Millions of dollars)

| Year Ended Dec. 31— | ASSETS | | | | | | | |
|---------------------------|--|----------------------------------|-------------------|--|---|--|---|-----------------------------------|
| | Bank of Canada Deposits and Notes | Canadian Day-to- Day Loans | Treasury Bills | Gov't. of Canada Direct and Guaranteed Bonds | Other Canadian Securities, Insured Residential Mortgages and Loans in Canada | Canadian Dollar Items in Transit (net) | Foreign Cash Items, Securities and Loans | Total Assets ¹ |
| 1948..... | 738 | — | 129 | 2,830 | 3,315 | 374 | 812 | 8,517 |
| 1949..... | 753 | — | 126 | 2,986 | 3,392 | 306 | 800 | 8,653 |
| 1950..... | 810 | — | 129 | 2,950 | 3,922 | 431 | 807 | 9,443 |
| 1951..... | 892 | — | 236 | 2,518 | 4,052 | 512 | 869 | 9,458 |
| 1952..... | 899 | — | 138 | 2,647 | 4,353 | 752 | 980 | 10,128 |
| 1953..... | 888 | — | 244 | 2,516 | 4,878 | 751 | 1,064 | 10,656 |
| 1954..... | 791 | 68 | 360 | 2,953 | 4,963 | 827 | 1,142 | 11,433 |
| 1955..... | 840 | 81 | 427 | 2,632 | 6,207 | 1,002 | 1,127 | 12,702 |
| 1956..... | 882 | 74 | 740 | 1,675 | 6,820 | 1,330 | 1,486 | 13,428 |
| 1957..... | 866 | 210 | 805 | 1,835 | 6,953 | 1,151 | 1,970 | 14,244 |
| LIABILITIES | | | | | | | | |
| Canadian Dollar Deposits | | | | | | | | |
| | Government of Canada | Notice | | All Other | Total | Foreign Currency Deposits | Share- holders Equity | Total Liabilities ¹ |
| | | Personal Savings | Other Notice | | | | | |
| 1948..... | 236 | 3,752 | 305 | 2,779 | 7,072 | 868 | 346 | 8,517 |
| 1949..... | 164 | 4,086 | 347 | 2,720 | 7,317 | 795 | 353 | 8,653 |
| 1950..... | 257 | 4,176 | 383 | 3,164 | 7,979 | 835 | 361 | 9,443 |
| 1951..... | 88 | 4,296 | 316 | 3,273 | 7,973 | 878 | 375 | 9,458 |
| 1952..... | 49 | 4,600 | 325 | 3,662 | 8,636 | 905 | 381 | 10,128 |
| 1953..... | 473 | 4,756 | 278 | 3,603 | 9,111 | 963 | 419 | 10,656 |
| 1954..... | 176 | 5,218 | 397 | 3,891 | 9,683 | 1,030 | 521 | 11,433 |
| 1955..... | 517 | 5,633 | 464 | 4,234 | 10,848 | 1,056 | 567 | 12,702 |
| 1956..... | 246 | 6,007 | 444 | 4,465 | 11,162 | 1,369 | 653 | 13,428 |
| 1957..... | 423 | 6,248 | 408 | 4,328 | 11,407 | 1,827 | 732 | 14,244 |

¹ Includes other items not specified.

12.—Statement of Chartered Bank Assets and Liabilities as at Dec. 31, 1955-57

| Assets and Liabilities | 1955 | 1956 | 1957 |
|---|-----------|-----------|-----------|
| | \$'000 | \$'000 | \$'000 |
| Assets— | | | |
| Gold and coin in Canada..... | 18,948 | 19,545 | 22,522 |
| Gold and coin outside Canada..... | 1,357 | 1,464 | 1,611 |
| Notes of and deposits with Bank of Canada..... | 840,406 | 882,434 | 866,178 |
| Government and bank notes other than Canadian..... | 44,118 | 46,286 | 52,613 |
| Deposits with other banks in Canadian currency..... | 3,873 | 9,090 | 5,554 |
| Deposits with other banks in currencies other than Canadian..... | 283,772 | 315,638 | 378,153 |
| Cheques and other items in transit, (net)..... | 999,100 | 1,322,014 | 1,161,579 |
| Government of Canada treasury bills..... | 427,464 | 739,600 | 804,964 |
| Other Government of Canada direct and guaranteed securities maturing within two years, not exceeding market value..... | 475,089 | 406,096 | 409,853 |
| Government of Canada direct and guaranteed securities maturing after two years, not exceeding market value..... | 2,156,877 | 1,268,933 | 1,425,370 |
| Canadian provincial government direct and guaranteed securities, not exceeding market value..... | 322,478 | 268,981 | 285,011 |
| Canadian municipal and school corporation securities, not exceeding market value..... | 217,658 | 184,694 | 168,273 |
| Other Canadian securities, not exceeding market value..... | 481,916 | 510,112 | 508,753 |
| Securities other than Canadian, not exceeding market value..... | 281,689 | 375,117 | 431,086 |

12.—Statement of Chartered Bank Assets and Liabilities as at Dec. 31, 1955-57—concluded

| Assets and Liabilities | 1955 | 1956 | 1957 |
|---|-------------------|-------------------|-------------------|
| | \$'000 | \$'000 | \$'000 |
| Assets—concluded | | | |
| Mortgages and hypothecs insured under the National Housing Act 1954, less provision for estimated loss..... | 293,663 | 493,177 | 585,806 |
| Call and short loans in Canada to brokers and investment dealers, secured..... | 259,904 | 226,069 | 400,400 |
| Call and short loans outside Canada to brokers and investment dealers, secured..... | 176,999 | 345,083 | 575,874 |
| Loans to Canadian provincial governments..... | 82,868 | 95,043 | 88,842 |
| Loans to Canadian municipalities and school corporations, less provision for estimated loss..... | 123,898 | 176,620 | 193,081 |
| Other current loans in Canada, less provision for estimated loss..... | 4,503,161 | 4,973,249 | 4,930,990 |
| Other current loans outside Canada, less provision for estimated loss..... | 341,094 | 374,528 | 519,626 |
| Non-current loans, less provision for estimated loss..... | 1,362 | 1,398 | 1,499 |
| Bank premises at cost, less amounts written off..... | 125,664 | 143,517 | 158,902 |
| Shares of and loans to corporations controlled by the bank..... | 31,280 | 34,878 | 37,984 |
| Customers' liability under acceptances, guarantees and letters of credit as <i>per contra</i> | 203,367 | 209,923 | 224,294 |
| Other assets..... | 3,731 | 4,407 | 4,686 |
| Totals, Assets..... | 12,701,736 | 13,427,896 | 14,243,504 |
| Liabilities— | | | |
| Deposits by Government of Canada in Canadian currency..... | 516,581 | 245,632 | 422,694 |
| Deposits by Canadian provincial governments in Canadian currency..... | 180,516 | 169,350 | 124,992 |
| Deposits by other banks in Canadian currency..... | 139,423 | 115,655 | 108,418 |
| Deposits by other banks in currencies other than Canadian..... | 105,671 | 234,427 | 269,739 |
| Personal savings deposits payable after notice, in Canada, in Canadian currency..... | 5,632,752 | 6,007,180 | 6,107,930 |
| Other deposits payable after notice, in Canadian currency..... | 463,649 | 444,167 | 547,505 |
| Other deposits payable on demand, in Canadian currency..... | 3,915,196 | 4,180,355 | 4,095,483 |
| Other deposits in currencies other than Canadian..... | 950,223 | 1,134,563 | 1,557,240 |
| Advances from Bank of Canada, secured..... | 2,000 | — | — |
| Acceptances, guarantees and letters of credit..... | 203,367 | 209,923 | 224,294 |
| Other liabilities..... | 25,513 | 33,869 | 52,804 |
| Capital paid up..... | 180,998 | 195,348 | 211,879 |
| Rest account..... | 374,394 | 451,653 | 511,558 |
| Undivided profits at latest fiscal year end..... | 11,453 | 5,774 | 8,968 |
| Totals, Liabilities..... | 12,701,736 | 13,427,896 | 14,243,504 |

13.—Canadian Cash Reserves 1948-57

NOTE.—For periods prior to July 1954 all figures are daily averages; from July 1954, in accordance with the Bank Act 1954, Bank of Canada deposits are averages of the juridical days in the month shown while Bank of Canada notes and Canadian dollar deposits are averages of the four consecutive Wednesdays ending with the second last Wednesday in the previous month.

(Millions of dollars)

| Year | Cash Reserves | | | Canadian Dollar Deposit Liabilities ¹ | Average Cash Reserve Ratio ² |
|----------------------------|-------------------------|----------------------|-------|--|---|
| | Bank of Canada Deposits | Bank of Canada Notes | Total | | |
| 1948..... | 531 | 181 | 711 | 6,547 | 10.9 |
| 1949..... | 550 | 196 | 746 | 7,178 | 10.4 |
| 1950..... | 548 | 207 | 755 | 7,487 | 10.1 |
| 1951..... | 567 | 225 | 792 | 7,759 | 10.2 |
| 1952..... | 606 | 239 | 844 | 8,110 | 10.4 |
| 1953..... | 627 | 256 | 883 | 8,624 | 10.2 |
| 1954—January to June..... | 634 | 260 | 894 | 8,820 | 10.1 |
| 1954—July to December..... | 525 | 286 | 811 | 9,097 | 8.9 |
| 1955..... | 541 | 293 | 834 | 9,915 | 8.4 |
| 1956..... | 548 | 325 | 873 | 10,527 | 8.3 |
| 1957..... | 535 | 335 | 870 | 10,601 | 8.2 |

¹ From July 1954 the figures are not adjusted for items in transit and are not strictly comparable with the figures or earlier periods. ² Prior to July 1, 1954, the statutory minimum requirement was 5 p.c. for each day; since that date it has been a monthly average of 8 p.c.

14.—Classification of Chartered Bank Deposit Liabilities Payable to the Public in Canada in Canadian Currency as at Sept. 30, 1956 and 1957

| Deposit Accounts of the Public of— | 1956 | | | 1957 | | |
|---|-----------------------------------|--------------------------------------|--------------------------------------|-----------------------------------|--------------------------------------|--------------------------------------|
| | Personal Savings Deposit Accounts | Other Deposit Accounts of the Public | Total Deposit Accounts of the Public | Personal Savings Deposit Accounts | Other Deposit Accounts of the Public | Total Deposit Accounts of the Public |
| | No. | No. | No. | No. | No. | No. |
| Less than \$100..... | 4,759,594 | 663,436 | 5,423,030 | 4,866,268 | 761,023 | 5,627,291 |
| \$100 or over but less than \$1,000..... | 2,892,455 | 517,352 | 3,409,807 | 2,949,492 | 612,645 | 3,562,137 |
| \$1,000 or over but less than \$10,000.. | 1,280,877 | 262,833 | 1,543,710 | 1,355,253 | 286,735 | 1,641,988 |
| \$10,000 or over but less than \$100,000. | 55,942 | 46,017 | 101,959 | 57,452 | 49,132 | 106,584 |
| \$100,000 or over..... | 975 | 5,674 | 6,649 | 814 | 5,397 | 6,211 |
| Totals, Deposits..... | 8,989,843 | 1,495,312 | 10,485,155 | 9,229,279 | 1,714,932 | 10,944,211 |

15.—Classification of Chartered Bank Loans in Canadian Currency as at Dec. 31, 1956 and 1957

| Class of Loan | 1956 | 1957 |
|---|----------------|----------------|
| | \$'000,000 | \$'000,000 |
| General Loans— | | |
| Personal..... | 786.1 | 725.1 |
| To individuals, fully secured by marketable bonds and stocks..... | 313.3 | 266.6 |
| Home improvement loans..... | 37.9 | 48.0 |
| To individuals, not elsewhere classified..... | 434.9 | 420.5 |
| Farmers— | | |
| Farm Improvement Loans..... | 129.7 | 125.4 |
| Other farm loans..... | 227.0 | 223.7 |
| Industry..... | 1,215.8 | 1,309.7 |
| Chemical and rubber products..... | 63.4 | 71.2 |
| Electrical apparatus and supplies..... | 62.9 | 53.4 |
| Food, beverages and tobacco..... | 208.0 | 234.5 |
| Forest products..... | 196.2 | 207.6 |
| Furniture..... | 22.7 | 20.3 |
| Iron and steel products..... | 160.9 | 164.7 |
| Mining and mine products..... | 101.0 | 169.1 |
| Petroleum and products..... | 144.7 | 108.2 |
| Textiles, leather and clothing..... | 167.5 | 150.3 |
| Transportation equipment..... | 48.6 | 68.6 |
| Other products..... | 69.9 | 61.9 |
| Merchandisers..... | 690.0 | 724.5 |
| Instalment and other finance companies..... | 394.5 | 281.2 |
| Construction contractors..... | 312.2 | 253.5 |
| Public utilities, transportation and communications..... | 151.9 | 173.1 |
| Other business..... | 394.7 | 412.7 |
| Religious, educational, health and welfare institutions..... | 90.3 | 115.0 |
| Totals, General Loans..... | 4,392.2 | 4,342.9 |
| Other Loans— | | |
| Provincial governments..... | 95.0 | 88.9 |
| Municipal governments and school districts..... | 176.6 | 193.1 |
| Stockbrokers..... | 89.4 | 57.5 |
| Investment dealers..... | 67.6 | 133.0 |
| Loans to finance the purchase of Canada Savings Bonds..... | 169.4 | 176.1 |
| Grain dealers and exporters..... | 372.5 | 412.4 |
| Totals, Other Loans..... | 970.5 | 1,061.0 |
| Totals, Loans in Canadian Currency..... | 5,362.6 | 5,404.9 |

16.—Chartered Bank Earnings, Expenses and Changes in Shareholders' Equity, Fiscal Years Ended in 1953-57

NOTE.—In 1953-54 the financial years of seven banks ended on Oct. 31, two on Nov. 30 and two on Sept. 30; in 1955 the financial years of eight banks ended on Oct. 31, two on Nov. 30 and one on Sept. 30; in 1956 and 1957 the financial years of six banks ended on Oct. 31, two on Nov. 30 and one on Sept. 30.

(Millions of dollars)

| Item | 1953 | 1954 ¹ | 1955 | 1956 | 1957 |
|---|-------------------|--------------------|-------------------|-------------------|------------------|
| Current Operating Earnings— | | | | | |
| Interest and discount on loans..... | 191.6 | 219.3 | 236.3 | 314.2 | 380.6 |
| Interest, dividends and trading profits on securities..... | 111.4 | 124.3 | 128.4 | 102.8 | 118.4 |
| Exchange, commission, service charges and other current operating earnings..... | 75.5 | 81.9 | 89.0 | 96.5 | 109.5 |
| Totals, Current Operating Earnings..... | 378.5 | 425.5 | 453.7 | 513.5 | 608.5 |
| Current Operating Expenses—² | | | | | |
| Interest on deposits..... | 65.7 | 91.5 | 105.2 | 129.1 | 183.4 |
| Remuneration to employees..... | 133.4 | 143.6 | 153.1 | 167.8 | 188.3 |
| Contributions to pension funds..... | 13.0 | 13.6 | 13.6 | 14.0 | 13.8 |
| Provision for depreciation of bank premises..... | 7.1 | 9.0 | 10.1 | 11.4 | 12.7 |
| Other, incl. taxes other than income taxes..... | 56.6 | 63.5 | 70.1 | 77.5 | 86.0 |
| Totals, Operating Expenses²..... | 275.8 | 321.2 | 352.1 | 399.8 | 484.2 |
| Net Current Operating Earnings²..... | 102.8 | 104.3 | 101.6 | 113.7 | 124.3 |
| Less provision for losses and addition to inner reserves ³ | 25.3 ⁴ | -34.7 ⁴ | 23.1 ⁴ | 11.0 ⁴ | 2.4 ⁴ |
| Less provision for income taxes ⁵ | 30.1 | 58.0 | 37.2 | 41.7 | 56.6 |
| Leaving for dividends and additions to shareholders' equity | 47.4 | 81.0 | 41.3 | 61.0 | 65.3 |
| Dividends to shareholders..... | 20.4 | 21.5 | 26.2 | 31.9 | 35.4 |
| Addition to shareholders' equity..... | 27.0 | 59.5 | 15.1 | 29.1 | 29.9 |
| ADDITIONS TO SHAREHOLDERS' EQUITY | | | | | |
| From Net Operating Earnings and Inner Reserves to— | | | | | |
| Undivided profits..... | -6.1 | 2.5 | 2.4 | -5.7 | 3.2 |
| Rest account..... | 33.1 | 57.0 | 12.7 | 34.9 | 26.7 |
| From Issue of New Shares— | | | | | |
| Rest account..... | 1.9 | 29.9 ⁶ | 19.8 | 42.1 | 33.3 |
| Capital paid up..... | 2.3 | 16.2 ⁶ | 13.7 | 14.2 | 16.5 |
| TOTALS, INCREASE IN SHAREHOLDERS' EQUITY..... | 31.2 | 105.7 | 48.6 | 85.5 | 79.7 |

¹ Includes figures for eleven months only for two banks (accounting on the average for 7.3 p.c. of total bank assets) which changed their financial year-ends from Nov. 30 to Oct. 31. ² Before provision for income taxes and losses and additions to inner reserves. ³ Includes capital profits and losses and non-recurring items.

⁴ After deduction of re-transfers from inner reserves to undivided profits and rest account amounting to \$17,000,000 in 1953, \$48,000,000 in 1954, \$1,000,000 in 1955, \$19,000,000 in 1956 and \$18,700,000 in 1957. ⁵ Includes provision for income taxes on the taxable portion of additions to inner reserves and on that portion of the funds re-transferred from inner reserves not taxed previously. Includes foreign income taxes. ⁶ Includes increase of \$400,000 in rest account and \$1,500,000 in capital paid up which represented the capital of a bank that commenced business in December 1953.

Cheque Payments.—A monthly record of the amounts of cheques charged to customer accounts at all chartered bank offices in 35 major clearing-house centres of Canada is available from 1924. Except for a minor setback in 1938, the value of cheques cashed shows a continuously upward trend from 1932, the low point of the depression years. The total of \$205,558,447,000 in 1957 was a record, 565 p.c. greater than in 1938; the increase almost equalled the gain in gross national production during the same period. The advance was well distributed throughout Canada's five economic areas. British

Columbia showed the largest gain in this comparison with an increase of 758 p.c. The Prairie Provinces recorded the second largest advance of 601 p.c., followed in order by Ontario, the Atlantic Provinces and Quebec.* As compared with 1956, all five areas showed gains, with Ontario and Quebec accounting for nearly 78 p.c. of the \$13,000,000,000 advance.

Value of cheques cashed in 29 centres was higher in 1957 than in 1956. Payments in the two leading centres reached all-time peaks, Toronto advancing over 11 p.c. and Montreal nearly 5 p.c. In the same comparison Winnipeg decreased by 2 p.c. and Vancouver increased by almost 8 p.c.

* St. John's, Nfld., was included in the 1957 figure but not in 1938 data. Excluding this centre the ranking would be: British Columbia, the Prairie Provinces, Ontario, Quebec and the Maritime Provinces.

17.—Cheques Cashed at 35 Clearing-House Centres 1953-57

NOTE.—Figures for earlier years will be found in the corresponding table of previous Year Books.

| Clearing-House Centre | 1953 | 1954 | 1955 | 1956 | 1957 |
|--------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| | \$ | \$ | \$ | \$ | \$ |
| Atlantic Provinces..... | 3,397,536,751 | 3,483,572,588 | 3,623,885,796 | 4,136,063,557 | 4,253,883,344 |
| Halifax..... | 1,473,198,649 | 1,578,537,898 | 1,627,402,746 | 1,900,368,542 | 1,862,262,193 |
| Moncton..... | 508,737,477 | 516,387,794 | 558,648,038 | 616,097,610 | 610,987,505 |
| Saint John..... | 680,166,727 | 686,419,892 | 720,696,563 | 824,915,065 | 974,094,965 |
| St. John's..... | 735,433,898 | 702,227,004 | 717,138,449 | 794,682,340 | 806,538,681 |
| Quebec..... | 38,139,426,225 | 42,853,000,654 | 47,931,766,648 | 57,635,780,762 | 60,153,465,596 |
| Montreal..... | 34,178,607,458 | 38,498,287,577 | 43,262,348,510 | 52,524,281,929 | 54,937,929,994 |
| Quebec..... | 3,535,148,293 | 3,946,839,332 | 4,220,646,837 | 4,575,848,864 | 4,675,308,837 |
| Sherbrooke..... | 425,670,474 | 407,873,745 | 448,771,301 | 535,649,969 | 540,226,765 |
| Ontario..... | 59,073,780,087 | 65,614,571,762 | 71,973,447,183 | 84,580,096,136 | 92,469,365,362 |
| Brantford..... | 522,687,516 | 494,781,493 | 529,527,130 | 596,455,633 | 587,964,512 |
| Chatham..... | 433,438,973 | 403,893,774 | 425,388,521 | 448,947,214 | 552,228,607 |
| Cornwall..... | 200,420,702 | 214,915,773 | 292,898,906 | 387,278,729 | 405,239,116 |
| Fort William..... | 311,696,268 | 310,230,256 | 354,323,721 | 410,549,615 | 455,892,329 |
| Hamilton..... | 3,409,585,973 | 3,175,436,695 | 3,556,484,589 | 4,179,292,551 | 4,355,968,082 |
| Kingston..... | 341,335,311 | 366,274,647 | 419,087,713 | 464,435,514 | 449,613,360 |
| Kitchener..... | 765,740,577 | 766,279,900 | 817,143,240 | 940,310,341 | 978,856,453 |
| London..... | 1,973,402,244 | 2,047,498,306 | 2,055,087,653 | 2,279,949,005 | 2,489,582,356 |
| Ottawa..... | 4,588,480,404 ¹ | 3,415,300,005 ¹ | 3,267,767,785 ¹ | 3,567,496,334 ¹ | 3,823,157,651 ¹ |
| Peterborough..... | 365,075,178 | 368,850,304 | 380,474,408 | 515,640,907 | 533,262,032 |
| St. Catharines..... | 632,551,049 | 616,343,148 | 683,520,885 | 780,623,214 | 795,132,217 |
| Sarnia..... | 433,418,719 | 434,253,776 | 476,917,287 | 552,812,970 | 571,839,628 |
| Sudbury..... | 434,356,825 | 444,396,796 | 497,174,554 | 580,450,567 | 641,458,123 |
| Toronto..... | 42,579,170,381 | 50,646,604,608 | 55,628,552,603 | 66,301,163,713 | 73,497,632,863 |
| Windsor..... | 2,082,419,967 | 1,909,612,281 | 2,589,098,188 | 2,574,689,829 | 2,331,538,033 |
| Prairie Provinces..... | 25,019,281,050 | 24,155,325,487 | 25,008,924,359 | 30,706,483,084 | 32,060,426,593 |
| Brandon..... | 136,064,872 | 184,748,103 | 191,777,756 | 217,917,059 | 222,033,280 |
| Calgary..... | 5,020,505,662 | 4,985,475,389 | 5,415,909,240 | 7,280,076,762 | 8,319,489,021 |
| Edmonton..... | 3,514,626,107 | 3,609,993,451 | 4,051,760,277 | 4,728,775,559 | 4,876,156,389 |
| Lethbridge..... | 349,470,995 | 344,029,413 | 354,898,604 | 401,410,718 | 421,533,161 |
| Medicine Hat..... | 157,084,209 | 142,905,140 | 146,543,311 | 176,626,478 | 193,144,298 |
| Moose Jaw..... | 319,040,193 | 311,252,949 | 295,191,500 | 324,438,043 | 340,909,600 |
| Prince Albert..... | 175,349,193 | 160,153,483 | 155,489,736 | 165,300,168 | 185,407,182 |
| Regina..... | 2,482,735,680 | 2,297,905,822 | 2,395,122,040 | 2,885,106,529 | 3,233,572,111 |
| Saskatoon..... | 741,432,468 | 701,960,040 | 708,209,073 | 773,856,439 | 849,665,271 |
| Winnipeg..... | 12,072,971,671 | 11,416,901,697 | 11,294,022,822 | 13,752,975,329 | 13,418,516,280 |
| British Columbia..... | 11,786,822,545 | 11,956,325,458 | 12,812,853,961 | 15,231,472,672 | 16,621,305,755 |
| New Westminster..... | 554,708,805 | 608,576,723 | 673,630,786 | 716,803,680 | 742,204,569 |
| Vancouver..... | 9,790,943,286 | 9,752,576,977 | 10,398,019,050 | 12,579,751,243 | 13,523,017,393 |
| Victoria..... | 1,441,170,454 | 1,595,171,758 | 1,741,204,125 | 1,934,917,749 | 2,356,083,788 |
| Totals..... | 137,416,546,658 | 148,062,795,949 | 161,350,877,947 | 192,289,893,211 | 205,558,446,650 |

¹ Includes some debits reported in preceding years.

Subsection 2.—Government and Other Banking Institutions

There are three distinct types of savings banks in Canada in addition to the savings departments of the chartered banks and of trust and loan companies: (1) the Post Office Savings Bank, in which deposits are a direct obligation of the Government of Canada; (2) Provincial Government savings banking institutions in Newfoundland, Ontario and Alberta, where the depositor becomes a direct creditor of the province; and (3) two important savings banks in the Province of Quebec—the Montreal City and District Savings Bank and La Banque d'Économie de Québec—established under federal legislation and reporting monthly to the Federal Department of Finance. In addition, co-operative credit unions encourage savings among low-income classes and extend small loans to its members.

Post Office Savings Bank.—The Post Office Savings Bank was established under the Post Office Act of 1867 (31 Vict., c. 10) to "enlarge the facilities now available for the deposit of small savings, to make the Post Office available for that purpose, and to give the direct security of the nation to every depositor for repayment of all money deposited by him together with the interest due thereon". Branches of the Government of Canada's Savings Bank under the Department of Finance were gradually amalgamated with this Bank over a period of 50 years and the amalgamation was completed in March 1929. Summary financial statistics for the years ended Mar. 31, 1953-57, follow. Figures back to 1868 are available in previous editions of the Year Book.

| <u>Item</u> | <u>1953</u> | <u>1954</u> | <u>1955</u> | <u>1956</u> | <u>1957</u> |
|----------------------------|-------------|-------------|-------------|-------------|-------------|
| | \$ | \$ | \$ | \$ | \$ |
| Deposits and Interest..... | 12,263,697 | 11,330,055 | 10,115,308 | 9,940,163 | 10,416,886 |
| Deposits..... | 11,521,743 | 10,597,048 | 9,402,227 | 9,241,338 | 9,663,774 |
| Interest on deposits..... | 741,954 | 733,009 | 713,081 | 698,776 | 753,112 |
| Withdrawals..... | 10,972,700 | 12,859,370 | 11,127,555 | 10,556,369 | 10,662,847 |
| Balance on deposit..... | 39,322,230 | 37,792,914 | 36,780,667 | 36,164,460 | 35,918,499 |

Provincial Government Savings Banks.—Institutions for the deposit of savings are operated by the Provincial Governments of Newfoundland, Ontario and Alberta.

Newfoundland.—The Newfoundland Savings Bank was established in 1834 and the following is a summary financial statement for the years ended Mar. 31, 1955-57.

| <u>Item</u> | <u>1955</u> | <u>1956</u> | <u>1957</u> |
|------------------------------------|-------------|-------------|-------------|
| | \$ | \$ | \$ |
| Interest on investments, etc..... | 892,218 | 953,547 | 972,347 |
| Net rental income..... | 2,958 | 3,195 | 2,849 |
| Profit on sale of investments..... | 81,020 | 37,808 | —1,664 |
| Less: Interest on deposits..... | 709,542 | 734,972 | 748,780 |
| Less: Expenses..... | 55,924 | 53,843 | 56,716 |
| Less: Transfer to reserves..... | 31,065 | 31,074 | 31,118 |
| NET INCOME..... | 179,665 | 174,661 | 136,918 |

The number of accounts increased from 36,512 at Mar. 31, 1956, to 36,561 in 1957; deposits decreased from \$28,637,052 to \$28,343,120 in the same comparison. On Apr. 1, 1957, the interest rates payable on deposits of private individuals, trust funds and estates, were increased from 2½ p.c. to 3 p.c. per annum in respect of all amounts in excess of \$5,000.

Ontario.—The establishment of the Province of Ontario Savings Office was authorized by the Ontario Legislature at the 1921 Session and the first branches were opened in March 1922. Interest at the rate of $2\frac{1}{2}$ p.c. and $2\frac{3}{4}$ p.c. per annum, compounded half-yearly, is paid on accounts, and deposits are repayable on demand. Total deposits at Mar. 31, 1957, were \$80,500,000 and the number of depositors was approximately 96,000. Twenty-one branches were in operation throughout the Province.

Alberta.—Savings deposits are accepted at 50 Provincial Treasury Branches throughout Alberta. The total of these deposits at Mar. 31, 1957, was \$23,398,702, payable on demand and bearing interest at 2 p.c. per annum.

The Provincial Treasury has issued demand certificates bearing interest at $1\frac{1}{2}$ p.c. or term certificates for one, two, three, four or five years in denominations of \$25 and upwards, bearing interest at 2 p.c. for one or two years, $2\frac{1}{4}$ p.c. for three or four years and $2\frac{1}{2}$ p.c. for five years. The total amount in savings certificates at Mar. 31, 1957, was \$8,030, made up of \$5,680 in demand certificates and \$2,350 in term certificates. Deposits from the public for the purchase of such certificates were discontinued as from April 1951.

Quebec Savings Banks.—The Montreal City and District Savings Bank, founded in 1846 and now operating under a charter of 1871 had, at Mar. 31, 1957, a paid-up capital and reserve of \$8,500,000, savings deposits of \$219,764,429 and total liabilities of \$229,030,219. Total assets amounted to \$229,030,219, including over \$153,000,000 of federal, provincial and municipal securities. La Banque d'Économie de Québec, founded in 1848 (as La Caisse d'Économie de Notre-Dame de Québec) under the auspices of the St. Vincent de Paul Society, incorporated by Act of the Canadian Legislature in 1855 and given a federal charter by 34 Viet., c. 7, had at Mar. 31, 1957, savings deposits of \$35,235,882 and a paid-up capital and reserve of \$3,000,000. Liabilities amounted to \$43,410,151 and total assets of a like amount.

The following statement shows the combined savings deposits in the Montreal City and District Savings Banks and La Banque d'Économie de Québec for the years ended Mar. 31, 1948-57. Figures back to 1868 are available in previous editions of the Year Book.

| <i>Year</i> | <i>Deposits</i> | <i>Year</i> | <i>Deposits</i> |
|-------------|-----------------|-------------|-----------------|
| | \$ | | \$ |
| 1948..... | 170,103,786 | 1953..... | 214,122,001 |
| 1949..... | 184,250,615 | 1954..... | 219,372,061 |
| 1950..... | 192,567,275 | 1955..... | 237,816,198 |
| 1951..... | 193,982,871 | 1956..... | 256,526,482 |
| 1952..... | 200,342,385 | 1957..... | 255,000,311 |

Credit Unions.*—During the past decade credit unions have become quite important among the savings and loan institutions in Canada since they are used by one Canadian in every eight. This is a self-help movement in which small savings of nearly 2,000,000 people have resulted in assets of \$768,000,000, or an average per member of about \$400. The number of credit unions has almost doubled during the postwar period and the membership has increased almost threefold. The bulk of the membership is in Quebec and Ontario. In the former province assets is mostly held in the form of deposits, while in Ontario the major part of the assets are in shares.

Loans are granted to members for provident and productive purposes from the accumulated pooled savings and are mostly secured by personal notes. Loans in 1956 amounted to \$319,000,000.

There were 27 central credit unions in 1956 receiving deposits from and making loans to individual credit unions. These centrals are incorporated under provincial legislation to facilitate the flow of funds to credit unions that cannot meet the demand for local loans.

A Canadian Co-operative Credit Society serves as a central for all Canada.

* Prepared in the Economics Division, Marketing Services, Department of Agriculture, Ottawa.

18.—Credit Unions in Canada 1947-56

| Year | Credit Unions Chartered | Credit Unions Reporting | Members ¹ | Assets ¹ |
|-------------------------|-------------------------|-------------------------|----------------------|---------------------|
| | No. | No. | No. | \$ |
| 1947..... | 2,516 | 2,367 | 779,199 | 221,116,168 |
| 1948..... | 2,608 | 2,482 | 850,608 | 253,584,282 |
| 1949 ² | 2,819 | 2,705 | 940,427 | 282,242,278 |
| 1950..... | 2,965 | 2,801 | 1,036,175 | 311,532,143 |
| 1951..... | 3,121 | 2,952 | 1,137,931 | 358,646,767 |
| 1952..... | 3,335 | 3,080 | 1,260,435 | 424,400,375 |
| 1953..... | 3,606 | 3,413 | 1,434,270 | 489,266,090 |
| 1954..... | 3,920 | 3,690 | 1,560,715 | 552,362,571 |
| 1955..... | 4,100 | 3,899 | 1,731,328 | 652,553,665 |
| 1956..... | 4,191 | 3,928 | 1,899,477 | 767,834,043 |

¹ Reporting organizations only.² Newfoundland included from 1949

19.—Summary Statistics of Credit Unions by Province 1955 and 1956

| Year and Province | Credit Unions Chartered | Credit Unions Reporting | Members ¹ | Assets ¹ | Shares ¹ | Deposits ¹ | Loans to Members during Year ¹ | Total Loans since Inception ¹ |
|----------------------------|-------------------------|-------------------------|----------------------|---------------------|---------------------|-----------------------|---|--|
| | No. | No. | No. | \$ | \$ | \$ | \$ | \$ |
| 1955 | | | | | | | | |
| Newfoundland..... | 72 | 51 | 3,273 | 301,933 | 261,039 | 10,297 | 138,118 | 3,136,907 |
| P. E. Island..... | 58 | 58 | 9,930 | 1,212,776 | 977,501 | 109,895 | 794,751 | 7,206,000 |
| Nova Scotia..... | 218 | 190 | 51,985 | 8,654,480 | 7,810,490 | 175,324 | 5,625,365 | 45,357,157 |
| New Brunswick..... | 165 | 161 | 69,078 | 9,154,079 | 8,241,538 | 121,136 | 4,865,332 | 39,063,716 |
| Quebec— | | | | | | | | |
| Desjardins..... | 1,147 | 1,136 | 854,297 | 405,827,942 | 27,326,573 | 353,435,044 | 102,595,578 | 804,202,327 |
| Que. League..... | 196 | 196 | 50,000 ² | 9,726,705 | 7,184,637 | 1,915,447 | 6,500,000 ² | 27,123,196 |
| Montreal Fed'n..... | 14 | 14 | 30,221 | 23,539,067 | 1,436,721 | 20,662,708 | 3,580,169 | 39,744,562 |
| Ontario..... | 1,235 | 1,130 | 353,109 | 90,602,489 | 62,211,998 | 17,809,779 | 70,886,672 | 333,134,969 |
| Manitoba..... | 192 | 188 | 56,192 | 15,317,229 | 10,600,842 | 2,873,348 | 10,885,604 | 60,977,782 |
| Saskatchewan..... | 284 | 270 | 80,396 | 32,356,118 | 23,988,999 | 4,928,173 | 15,621,493 | 113,072,340 |
| Alberta..... | 228 | 221 | 44,970 | 11,363,674 | 9,637,089 | 695,811 | 8,731,826 | 48,309,780 |
| British Columbia..... | 291 | 284 | 127,877 | 44,552,173 | 33,969,881 | 6,433,673 | 29,799,078 | 139,447,768 |
| Totals, 1955..... | 4,100 | 3,899 | 1,731,328 | 652,553,665 | 193,647,308 | 409,170,635 | 259,973,991 | 1,660,866,504 |
| 1956 | | | | | | | | |
| Newfoundland..... | 70 | 55 | 3,745 | 360,447 | 311,940 | 11,122 | 210,689 | 3,359,592 |
| P. E. Island..... | 59 | 59 | 9,750 | 1,283,152 | 1,052,901 | 103,850 | 727,533 | 7,933,400 |
| Nova Scotia..... | 221 | 190 | 51,824 | 9,656,665 | 8,665,556 | 224,149 | 6,095,032 | 51,452,190 |
| New Brunswick..... | 166 | 164 | 73,196 | 10,731,952 | 9,716,736 | 122,352 | 5,704,088 | 44,767,804 |
| Quebec— | | | | | | | | |
| Desjardins..... | 1,160 | 1,150 | 932,469 | 464,582,293 | 30,750,101 | 404,894,750 | 120,002,792 | 924,295,119 |
| Que. League..... | 197 | 192 | 53,586 | 13,172,608 | 10,341,097 | 1,915,490 | 7,200,000 ² | 34,323,196 |
| Montreal Fed'n..... | 14 | 14 | 33,539 | 27,385,693 | 1,686,945 | 23,975,503 | 6,137,991 ² | 46,882,553 |
| Ontario ² | 1,275 | 1,113 | 403,104 | 113,643,876 | 77,640,573 | 19,929,143 | 91,445,319 | 422,729,544 |
| Manitoba..... | 196 | 190 | 60,491 | 18,740,928 | 13,067,333 | 3,419,804 | 13,925,440 | 74,903,221 |
| Saskatchewan..... | 283 | 278 | 86,036 | 38,646,038 | 28,798,162 | 6,512,309 | 17,775,838 | 131,304,432 |
| Alberta..... | 243 | 233 | 49,378 | 13,781,244 | 11,673,328 | 925,817 | 10,538,680 | 68,741,064 |
| British Columbia..... | 307 | 290 | 142,359 | 55,849,147 | 42,818,127 | 5,652,288 | 39,679,655 | 179,616,486 |
| Totals, 1956..... | 4,191 | 3,928 | 1,899,477 | 767,834,043 | 236,522,799 | 467,686,547 | 319,443,057 | 1,980,309,201 |

¹ Reporting organizations only.² Estimated.

Section 4.—Foreign Exchange

The dollar, established officially as the currency of the united provinces of Canada on Jan. 1, 1858, and extended to cover the new Dominion by the Uniform Currency Act of 1870, was defined as 15/73 of the British gold sovereign.* That is, the par rate of exchange between the dollar and the pound sterling was fixed at \$4.866, making the Canadian currency the equivalent of the United States dollar at parity. With minor variations between the import and export gold points representing the cost of shipping gold in either direction, the value of the pound sterling in Canada remained at this level until the outbreak of World War I. The United States dollar, on the other hand, was at a discount in terms of Canadian funds for the first eleven years after Confederation since it was not redeemable in gold from February 1862 to January 1879. On the basis of gold equivalents it would appear that the greatest monthly average discount on the United States dollar after Confederation was approximately 31 p.c., reached in August 1868. From 1879 to 1914 the dollars of the two countries remained at par, varying only within the gold points or under \$2 per thousand.

On the outbreak of World War I, Canada and the United Kingdom suspended the gold standard. For some weeks both the pound and the Canadian dollar rose to a premium in New York. Subsequently both fell back with the pound going to a slight discount. In January 1916 the pound was officially pegged at \$4.76 in American funds. This level was maintained with the help of funds realized by sales of United States securities owned by residents of the United Kingdom, by borrowing in the United States and, after the American entry into the War, by the United States Government financing Allied purchases in that country.

From 1915 to the end of 1917 fluctuations in the rate of exchange between the Canadian and United States dollars did not exceed 2 p.c. on either side of parity; the pound was stable in terms of United States dollars during this period. In 1918 the Canadian dollar began to weaken. After the pound was unpegged in 1919 the Canadian dollar declined further and in 1920 it fell to 82 cents in New York with sterling going as low as \$3.18.

By the latter half of 1922 the Canadian dollar had returned practically to par in New York. Despite some further weakness in sterling, the dollar remained close to that level during the next two years, averaging 98.04 and 98.73 cents in terms of the United States dollar in 1923 and 1924, respectively, and fluctuating between a discount of about 3.6 cents and a premium of approximately 0.4 cents. After the United Kingdom resumed gold payments in April 1925, the range of fluctuation of the Canadian dollar narrowed further. From Canada's return to the gold standard July 1, 1926, to January 1929, the exchange rate remained within the gold points. The Canadian dollar then went to a slight discount in New York. With the exception of the period July to November 1930, when it went to a small premium in New York, the dollar remained below parity until the United Kingdom abandoned the gold standard in September 1931. After that month the pound sterling depreciated sharply and the Canadian dollar followed, reaching lows† in New York of 80.5 cents in December 1931 and 82.6 cents in April 1933.

Following the prohibition of gold exports in the latter month by the United States, the pound and the Canadian dollar strengthened rapidly in terms of American funds. By November 1933, both currencies had reached a premium in New York. Meanwhile in a series of steps beginning with permitting the export of newly mined gold in August

* The gold sovereign remained the standard for the Canadian dollar until 1910 when the currency was defined in terms of fine gold making it the exact gold equivalent of the United States dollar. Both British and United States gold coins were, however, legal tender in Canada for this whole period.

† Noon quotations. Daily highs and lows may have exceeded these rates.

1933, the United States moved towards resumption of the gold standard. As of Feb. 1, 1934, the United States Treasury undertook to buy all gold offered at \$35 per ounce. After that the exchange rate between the Canadian and United States dollar stabilized. Until the outbreak of war in 1939 much of the trading was conducted within one cent of parity although the Canadian dollar in New York did go as high as 103.6 cents (September 1934) and as low as 98.0 cents (September 1938).*

On the outbreak of World War II in September 1939, the United Kingdom and other sterling countries introduced foreign exchange control involving fixed buying and selling rates of \$4.02½ and \$4.03½ respectively in terms of the U.S. dollar. The Canadian dollar in New York declined until Sept. 16, 1939, when the Government instituted foreign exchange control† in Canada and established fixed buying and selling rates of \$1.10 to \$1.11 for the U.S. dollar and \$4.43 to \$4.47 for sterling. As compared with previous months the depreciation of the Canadian dollar in terms of United States funds was approximately half as great as that of the pound sterling.

Apart from a minor adjustment on Oct. 15, 1945, when selling rates for U.S. dollars and sterling were lowered to \$1.10½ and \$4.45, respectively, the official rates for the Canadian dollar remained unchanged until July 5, 1946. At that time the rate on the U.S. dollar was restored to par, with buying and selling rates for that currency of \$1.00 to \$1.00½ and for sterling \$4.02 to \$4.04. These rates continued in effect until Sept. 19, 1949, when, following a 30.5-p.c. reduction by the United Kingdom in the value of sterling to \$2.80 U.S. (an action which was paralleled in varying degrees by numerous other currencies) Canada returned to the former official rates of \$1.10 and \$1.10½ for United States funds. Sterling was quoted at \$3.07¼ and \$3.08¾ on the basis of the New York cross rate.

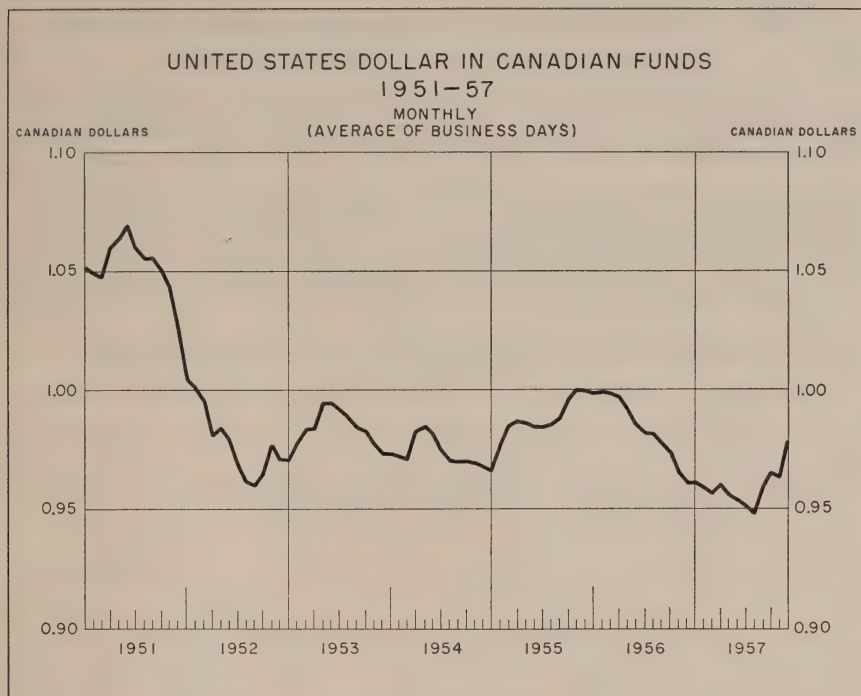
On Sept. 30, 1950, the Minister of Finance announced that official fixed foreign exchange rates which had been in effect at varying levels since 1939 would be withdrawn effective Oct. 2. Since then the Government's policy has been to allow the rate to be determined by the normal play of economic forces without official intervention by the Exchange Fund Account except to ensure orderly conditions in the foreign exchange market. No attempt is made to reverse persistent trends, but only to smooth out excessive short-run fluctuations.

Until Dec. 14, 1951, this policy was carried out within the framework of exchange control. On that date the Foreign Exchange Control regulations were revoked by the Governor in Council and new regulations were passed which exempted all persons and transactions from the various requirements of the Foreign Exchange Control Act. These actions terminated exchange control in Canada and the Foreign Exchange Control Act was repealed in 1952.

The movements of the U.S. dollar in Canadian funds from January 1951 to the end of 1957 are shown on the following chart. After the major change that occurred in the latter half of 1951 and the first three quarters of 1952, the U.S. dollar fluctuated within a comparatively narrow range between a low of 95.9 cents in September 1952 and a high of 100.1 cents in November 1955. In the second quarter of 1956, however, the U.S. dollar began to weaken and this movement continued into the third quarter of 1957. The previous postwar low (95.9 cents) was passed in November 1956 and by August 1957 the U.S. dollar had fallen to 94.2 cents, a record low for the present century. In the last four months of 1957 the U.S. dollar rose again to close the year at 98.4 cents.

* Noon quotations. Daily highs and lows may have exceeded these rates.

† The operations of the Foreign Exchange Control Board from the time of its establishment to the termination of exchange control in December 1951 are reviewed in previous editions of the Year Book.



20.—Canada's Holdings of Gold and United States Dollars as at Dec. 31, 1940-57
(Millions of U.S. Dollars)

| Year | Exchange Fund Account and Bank of Canada | | Other Government of Canada Accounts | Total | Year | Exchange Fund Account and Bank of Canada | | Other Government of Canada Accounts | Total |
|-----------|--|--------------|-------------------------------------|-----------------------|-----------|--|--------------|-------------------------------------|-----------------------|
| | Gold | U.S. Dollars | U.S. Dollars | Gold and U.S. Dollars | | Gold | U.S. Dollars | U.S. Dollars | Gold and U.S. Dollars |
| 1940..... | 136.5 | 172.8 | 20.8 | 332.1 ¹ | 1949..... | 486.4 | 594.1 | 36.6 | 1,117.1 ² |
| 1941..... | 135.9 | 28.2 | 23.5 | 187.6 | 1950..... | 580.0 | 1,144.9 | 16.6 | 1,741.5 |
| 1942..... | 154.9 | 88.0 | 75.6 | 318.5 | 1951..... | 841.7 | 899.5 | 37.4 | 1,778.6 |
| 1943..... | 224.4 | 348.8 | 76.4 | 649.6 | 1952..... | 885.0 | 961.8 | 13.4 | 1,860.2 |
| 1944..... | 293.9 | 506.2 | 102.1 | 902.2 | 1953..... | 986.1 | 802.0 | 30.4 | 1,818.5 |
| 1945..... | 353.9 | 922.0 | 232.1 | 1,508.0 | 1954..... | 1,072.7 | 833.4 | 36.5 | 1,942.6 |
| 1946..... | 536.0 | 686.3 | 22.6 | 1,244.9 | 1955..... | 1,133.9 | 692.0 | 74.9 | 1,900.8 |
| 1947..... | 286.6 | 171.8 | 43.3 | 501.7 | 1956..... | 1,103.3 | 783.7 | 49.2 | 1,936.2 |
| 1948..... | 401.3 | 574.5 | 22.0 | 997.8 | 1957..... | 1,100.3 | 728.0 | | 1,828.3 |

¹ Includes private holdings, exclusive of working balances, of \$2,000,000 at Dec. 31, 1940.
² Excludes \$18,200,000 borrowed in the United States in August 1949 and set aside for the retirement on Feb. 1, 1950, of a security issue guaranteed by the Federal Government and payable at the holder's option in U.S. dollars.

PART II.—MISCELLANEOUS COMMERCIAL FINANCE

Section 1.—Loan and Trust Companies*

An outline of the development of loan and trust companies in Canada from 1844 to 1913 is given in the 1934-35 Year Book, p. 993. The laws relating to loan and trust companies were revised by the Loan and Trust Companies Acts of 1914 (R.S.C. 1952, cc. 170 and 272), with the result that the statistics of provincially incorporated loan and trust companies ceased to be collected. However, summary information has been supplied by provincial companies since 1922 and figures for the years 1955 and 1956 are included in Table 1 in order to complete the statistics for loan and trust companies throughout Canada. It is estimated that more than 95 p.c. of the business of provincial companies is represented in the figures, so that they may be accepted as fairly inclusive and representative of the volume of business transacted as compared with the federally licensed companies.

The statistics of Tables 2 and 3 refer to those companies incorporated both by the Government of Canada and by the provinces. Included in the statistics of federal companies are data of loan and trust companies incorporated by the Province of Nova Scotia and brought by the laws of that Province under the examination of the federal Department of Insurance, as well as data for trust companies in New Brunswick and Manitoba.

The progress of the aggregate of loan company business in Canada is indicated by the increase in the book value of the assets of all loan companies from \$188,186,072 in 1923 to \$437,169,171 in 1956. The assets of trust companies (not including estates, trust and agency funds, which cannot be regarded as assets in the same sense as company and guaranteed funds) increased from \$154,202,165 in 1928 to \$745,038,679 in 1956. In the former year the total of estates, trust and agency funds administered amounted to \$1,077,953,643 and in 1956 to \$5,133,928,228.

Functions of Loan Companies.—The principal function of loan companies is the lending of funds on first-mortgage security, the money thus made available for development purposes being secured mainly by the sale of debentures to the investing public and by savings department deposits. The extent of investments in mortgages by federal and provincial loan companies may be gauged by the following figures: total assets of such companies for the years 1955 and 1956 amounted to \$410,593,640 and \$437,169,171, respectively, which amounts include mortgage loans of \$296,466,101 and \$331,433,425, respectively; thus, the resulting percentages of mortgages to total assets for those years were approximately 72 p.c. and 76 p.c., respectively.

Functions of Trust Companies.—Trust companies act as executors, trustees and administrators under wills or by appointment, as trustees under marriage or other settlements, as agents or attorneys in the management of the estates of the living, as guardians of minor or incapable persons, as financial agents for municipalities and companies, as transfer agents and registrars for stocks and bond issues, as trustees for bond issues, and, where so appointed, as authorized trustees in bankruptcy. Such companies receive deposits for investment but the investing and lending of such deposits and of actual trust funds are restricted by law.

* Revised under the direction of K. R. MacGregor, Superintendent of Insurance, Department of Insurance, Ottawa.

Statistics of Loan and Trust Companies.—A summary of operations of provincial and federal loan and trust companies is given in Table 1. As a result of the nature of the operations of the latter companies, which are intimately connected with the matter of probate, the larger trust companies usually choose to operate under provincial charters and the provincial figures represent much larger amounts than those of the federal companies.

The figures for federal loan companies include companies chartered by the Government of Nova Scotia which, by arrangement, come under inspection by the federal Department of Insurance. The data for federal trust companies cover companies chartered by the Governments of Nova Scotia, New Brunswick and Manitoba for the same reason.

1.—Operations of Provincial and Federal Loan and Trust Companies as at Dec. 31, 1955 and 1956

| Item | 1955 | | | 1956 | | |
|--|-----------------------------------|-------------------|---------------|-----------------------------------|-------------------|---------------|
| | Provincial Companies ¹ | Federal Companies | Total | Provincial Companies ¹ | Federal Companies | Total |
| | \$ | \$ | \$ | \$ | \$ | \$ |
| Loan Companies— | | | | | | |
| Assets (book values)..... | 129,589,371 | 281,004,269 | 410,593,640 | 140,453,366 | 296,715,805 | 437,169,171 |
| Liabilities to the public..... | 97,917,400 | 245,606,324 | 343,523,724 | 105,577,295 | 258,245,799 | 363,823,094 |
| Capital Stock— | | | | | | |
| Authorized..... | 24,002,250 | 52,500,000 | 76,502,250 | 27,350,150 | 52,500,000 | 79,850,150 |
| Subscribed..... | 14,261,131 | 15,489,300 | 29,750,431 | 15,430,343 | 16,440,600 | 31,870,943 |
| Paid up..... | 9,890,439 | 16,545,334 | 26,435,773 | 10,929,428 | 17,622,027 | 28,551,455 |
| Reserve and contingency funds.... | 16,694,396 | 17,458,300 | 34,152,696 | 18,149,014 | 19,271,324 | 37,420,338 |
| Other liabilities to shareholders... | 5,087,136 | 1,072,496 | 6,159,632 | 5,797,629 | 1,178,155 | 6,975,784 |
| Total liabilities to shareholders... | 31,671,971 | 35,076,130 | 66,748,101 | 34,876,071 | 38,071,506 | 72,947,577 |
| Net profits realized during year ² .. | 2,342,227 | 4,614,627 | 6,956,854 | 3,044,336 | 5,022,098 | 8,066,434 |
| Trust Companies— | | | | | | |
| Assets (book values)— | | | | | | |
| Company funds..... | 88,360,564 | 32,090,504 | 120,451,068 | 91,554,381 | 36,690,878 | 128,245,259 |
| Guaranteed funds..... | 437,168,231 | 159,235,891 | 596,404,122 | 446,448,674 | 170,344,746 | 616,793,420 |
| Totals, Assets..... | 525,528,795 | 191,326,395 | 716,855,190 | 538,003,055 | 207,035,624 | 745,038,679 |
| Estates, trust, and agency funds... | 3,985,662,299 | 734,670,479 | 4,720,332,778 | 4,318,560,879 | 815,367,549 | 5,133,928,228 |
| Capital Stock— | | | | | | |
| Authorized..... | 54,105,000 | 32,000,000 | 86,105,000 | 56,523,000 | 33,000,000 | 89,523,000 |
| Subscribed..... | 31,704,460 | 15,766,320 | 47,470,780 | 31,486,930 | 17,674,130 | 49,161,060 |
| Paid up..... | 30,932,370 | 15,407,916 | 46,340,286 | 30,901,805 | 17,327,010 | 48,228,815 |
| Reserve and contingency funds.... | 35,496,257 | 12,267,502 | 47,763,759 | 36,661,034 | 11,911,366 | 48,572,400 |
| Unappropriated surpluses..... | 6,464,682 | 2,405,761 | 8,870,443 | 8,041,408 | 2,414,427 | 10,455,835 |
| Net profits realized during year ² .. | 8,227,941 | 3,636,706 | 11,864,647 | 8,407,298 | 3,654,719 | 12,062,017 |

¹ Excludes one loan company incorporated under the laws of Quebec, the capital stock and debentures of which have been issued largely outside Canada.

² Net profits are before income taxes.

2.—Assets and Liabilities of Loan Companies 1952-56

| Item | CHARTERED BY GOVERNMENT OF CANADA ¹ | | | | |
|--|--|--------------------|--------------------|--------------------|--------------------|
| | 1952 | 1953 | 1954 | 1955 | 1956 |
| Assets | \$ | \$ | \$ | \$ | \$ |
| Real estate ² | 6,148,146 | 5,949,482 | 5,768,982 | 5,699,194 | 7,196,820 |
| Loans on real estate..... | 146,071,337 | 159,833,300 | 178,968,416 | 200,118,391 | 227,370,747 |
| Loans on securities..... | 107,585 | 164,364 | 139,250 | 155,562 | 180,793 |
| Bonds and debentures..... | 34,938,078 | 31,929,613 | 48,807,414 | 50,187,515 | 36,623,327 |
| Stocks..... | 11,353,848 | 10,877,532 | 12,163,845 | 14,058,759 | 16,246,819 |
| Cash..... | 6,906,488 | 7,022,432 | 7,916,073 | 8,781,617 | 7,015,991 |
| Totals, Assets³..... | 206,973,153 | 217,019,970 | 255,446,553 | 281,004,269 | 296,715,805 |
| Liabilities | | | | | |
| Liabilities to Shareholders— | | | | | |
| Capital paid up..... | 15,981,759 | 16,042,255 | 16,080,222 | 16,545,334 | 17,622,027 |
| Reserves..... | 14,894,345 | 15,100,186 | 16,604,475 | 17,458,300 | 19,271,324 |
| Total Liabilities to Shareholders ⁴ | 31,712,347 | 32,354,356 | 33,604,179 | 35,076,130 | 38,071,506 |
| Liabilities to the Public— | | | | | |
| Debentures..... | 91,492,226 | 98,618,936 | 120,816,931 | 130,264,215 | 146,839,303 |
| Deposits..... | 81,669,175 | 83,382,889 | 97,696,275 | 111,557,968 | 106,671,012 |
| Total Liabilities to the Public ⁵ | 175,107,452 | 184,448,041 | 221,612,649 | 245,606,324 | 258,245,799 |
| Totals, Liabilities..... | 206,819,799 | 216,802,397 | 255,216,828 | 280,682,454 | 296,317,305 |
| CHARTERED BY PROVINCES ⁶ | | | | | |
| | 1953 | 1954 | 1955 | 1956 | |
| Assets | \$ | \$ | \$ | \$ | |
| Real estate ² | 1,154,202 | 1,193,695 | 856,504 | 986,728 | |
| Loans on real estate..... | 77,786,970 | 87,292,830 | 96,347,710 | 104,062,678 | |
| Loans on securities..... | 981,122 | 1,019,631 | 1,035,965 | 1,194,450 | |
| Bonds and debentures..... | 20,597,703 | 22,094,106 | 23,017,586 | 26,377,850 | |
| Stocks..... | 2,263,272 | 2,298,200 | 2,782,701 | 3,176,295 | |
| Cash..... | 3,198,296 | 3,274,065 | 4,261,283 | 3,837,228 | |
| Totals, Assets³..... | 106,571,244 | 117,936,572 | 129,589,371 | 140,453,366 | |
| Liabilities | | | | | |
| Liabilities to Shareholders— | | | | | |
| Capital paid up..... | 10,134,967 | 9,808,065 | 9,890,439 | 10,929,428 | |
| Reserves..... | 13,985,035 | 15,090,685 | 16,694,396 | 18,149,014 | |
| Total Liabilities to Shareholders ⁴ | 28,453,777 | 29,852,739 | 31,671,971 | 34,876,071 | |
| Liabilities to the Public— | | | | | |
| Debentures..... | 23,751,608 | 26,556,895 | 28,696,549 | 30,139,135 | |
| Deposits..... | 52,481,156 | 59,683,140 | 67,587,267 | 73,543,780 | |
| Total Liabilities to the Public ⁵ | 78,117,467 | 88,083,833 | 97,917,400 | 105,577,295 | |
| Totals, Liabilities..... | 106,571,244 | 117,936,572 | 129,589,371 | 140,453,366 | |

¹ Includes companies chartered by the Government of Nova Scotia which by arrangement are inspected by the federal Department of Insurance. ² Book value of real estate for company use and other real estate.

³ Includes interest due and accrued and other assets.

⁴ Includes other liabilities to shareholders.

⁵ Includes other liabilities to the public.

⁶ Exclusive of Nova Scotia.

3.—Assets and Liabilities of Trust Companies 1952-56

| Item | CHARTERED BY GOVERNMENT OF CANADA ¹ | | | | |
|---|--|--------------------|--------------------|--------------------|--------------------|
| | 1952 | 1953 | 1954 | 1955 | 1956 |
| | \$ | \$ | \$ | \$ | \$ |
| Assets | | | | | |
| Company Funds ^{2,3} | 28,731,666 | 29,629,779 | 29,451,872 | 32,090,504 | 36,690,878 |
| Real estate ⁴ | 2,526,037 | 2,376,927 | 2,181,017 | 2,446,182 | 2,856,671 |
| Loans on real estate..... | 5,867,035 | 5,904,007 | 6,315,655 | 6,947,633 | 9,399,887 |
| Loans on securities..... | 763,618 | 714,659 | 610,784 | 593,086 | 507,486 |
| Bonds and debentures..... | 11,675,897 | 12,149,590 | 11,584,230 | 12,538,063 | 14,467,349 |
| Stocks..... | 4,632,875 | 4,544,646 | 4,498,384 | 5,314,098 | 5,500,185 |
| Cash..... | 2,060,423 | 2,423,362 | 3,156,458 | 3,136,361 | 2,506,028 |
| Guaranteed Funds ^{2,3} | 107,429,793 | 110,366,037 | 140,601,795 | 159,235,891 | 170,344,746 |
| Loans on real estate..... | 44,504,345 | 49,322,834 | 59,027,501 | 78,009,884 | 90,669,596 |
| Loans on securities..... | 4,151,541 | 3,419,930 | 5,577,269 | 4,875,283 | 6,610,998 |
| Bonds and debentures..... | 49,928,453 | 50,258,820 | 68,610,990 | 68,265,804 | 60,310,896 |
| Stocks..... | 1,236,757 | 1,454,318 | 1,898,885 | 2,127,899 | 1,561,694 |
| Cash..... | 6,760,472 | 5,052,409 | 4,273,214 | 4,592,425 | 9,731,317 |
| Liabilities | | | | | |
| Company Funds ⁵ | 28,583,274 | 29,048,202 | 28,850,642 | 31,905,971 | 36,381,834 |
| Capital paid-up..... | 14,862,123 | 15,097,718 | 14,653,624 | 15,407,916 | 17,327,010 |
| Reserves..... | 9,178,309 | 9,301,381 | 10,822,267 | 12,267,502 | 11,911,366 |
| Guaranteed Funds—Trust Deposits and Certificates | 107,429,793 | 110,366,037 | 140,601,795 | 159,235,891 | 170,344,746 |
| CHARTERED BY PROVINCES⁶ | | | | | |
| Assets | | | | | |
| Company Funds ^{2,3} | 75,097,721 | 81,569,089 | 83,140,092 | 88,360,564 | 91,554,381 |
| Real estate ⁴ | 5,263,529 | 7,199,260 | 7,823,819 | 8,411,623 | 8,763,967 |
| Loans on real estate..... | 14,306,251 | 13,743,299 | 13,016,509 | 14,060,244 | 12,812,273 |
| Loans on securities..... | 7,754,667 | 6,718,451 | 8,799,177 | 9,131,608 | 11,217,620 |
| Bonds and debentures..... | 24,134,845 | 27,229,386 | 25,690,753 | 25,481,913 | 24,123,965 |
| Stocks..... | 16,273,994 | 19,015,061 | 19,996,998 | 22,151,675 | 24,905,523 |
| Cash..... | 3,152,062 | 3,858,071 | 3,891,065 | 4,760,662 | 4,662,121 |
| Guaranteed Funds ² | 265,257,222 | 268,175,625 | 383,697,760 | 437,168,231 | 446,448,674 |
| Loans on real estate..... | 72,005,308 | 80,943,551 | 99,835,875 | 128,630,198 | 155,096,475 |
| Loans on securities..... | 11,332,357 | 10,873,145 | 20,265,826 | 24,700,574 | 19,823,245 |
| Bonds and debentures..... | 159,557,075 | 159,394,731 | 239,473,762 | 252,047,774 | 238,455,688 |
| Stocks..... | 2,092,145 | 1,642,565 | 978,378 | 1,286,070 | 2,212,005 |
| Cash..... | 19,916,400 | 14,716,402 | 21,553,634 | 28,110,462 | 28,037,961 |
| Liabilities | | | | | |
| Company Funds ⁵ | 75,097,721 | 81,569,089 | 83,140,092 | 88,360,564 | 91,554,381 |
| Capital paid-up..... | 28,804,860 | 29,414,810 | 29,870,940 | 30,932,370 | 30,901,805 |
| Reserves..... | 27,360,303 | 29,591,322 | 31,674,933 | 35,496,257 | 36,661,034 |
| Guaranteed Funds—Trust Deposits and Certificates | 265,257,222 | 268,175,625 | 383,697,760 | 437,168,231 | 446,448,674 |

¹ Includes companies chartered by the Governments of Nova Scotia, New Brunswick and Manitoba which by arrangement are inspected by the federal Department of Insurance. ² Includes other assets. ³ Includes interest due and accrued.

⁴ Book value of real estate for company use and other real estate. ⁵ Includes other company fund liabilities. ⁶ Chartered by all provinces except Nova Scotia, New Brunswick and Manitoba (see footnote 1).

4.—Estates, Trust and Agency Funds of Trust Companies Chartered by or Supervised by the Federal Government and by Provincial Governments as at Dec. 31, 1947-56

| Year | Federal Companies ¹ | Provincial Companies ² | Total | Year | Federal Companies ¹ | Provincial Companies ² | Total |
|-----------|--------------------------------|-----------------------------------|---------------|-----------|--------------------------------|-----------------------------------|---------------|
| | \$ | \$ | \$ | | \$ | \$ | \$ |
| 1947..... | 480,931,822 | 2,735,930,892 | 3,216,862,714 | 1952..... | 588,550,279 | 3,383,650,088 | 3,972,200,367 |
| 1948..... | 520,860,737 | 2,791,584,378 | 3,312,445,115 | 1953..... | 631,231,540 | 3,470,781,614 | 4,102,013,154 |
| 1949..... | 560,080,611 | 2,827,988,797 | 3,388,069,408 | 1954..... | 663,520,956 | 3,734,874,516 | 4,398,395,472 |
| 1950..... | 494,636,746 | 3,126,058,749 | 3,620,695,495 | 1955..... | 734,670,479 | 3,985,662,299 | 4,720,332,778 |
| 1951..... | 543,983,754 | 3,282,558,573 | 3,826,542,327 | 1956..... | 815,367,349 | 4,318,560,879 | 5,133,928,228 |

¹ Includes companies chartered by the Governments of Nova Scotia, New Brunswick and Manitoba which, by arrangement, are inspected by the federal Department of Insurance. ² Excludes provincial companies of Nova Scotia, New Brunswick and Manitoba which are included in federal companies.

Section 2.—Licensed Small Loans Companies and Licensed Money-Lenders*

Licensed small loans companies and licensed money-lenders are subject to the provisions of the Small Loans Act (R.S.C. 1952, c. 251), an enactment of the Parliament of Canada regulating personal loans not in excess of \$500 made on the security of promissory notes of borrowers. Most of these notes are additionally secured by endorsements or chattel mortgages. The Act permits maximum rates of cost of loan, including charges of every kind, of 2 p.c. per month to licensed lenders and 12 p.c. per annum to unlicensed lenders. The small loans companies—four in number—were incorporated by special Acts of the Parliament of Canada, the first such company commencing business in 1928. Money-lenders, of which there are 66, are made up of companies otherwise incorporated and include a few partnerships and individuals. Table 5 gives the combined financial experience of small loans companies and licensed money-lenders for the years 1953-56.

* Further details are given in the Department of Insurance report *Small Loans Companies and Money-Lenders* for the year ended Dec. 31, 1956.

5.—Assets and Liabilities of Small Loans Companies and Money-Lenders 1953-56

| Assets and Liabilities | 1953 | 1954 | 1955 | 1956 |
|--|--------------------|--------------------|--------------------|--------------------|
| | \$ | \$ | \$ | \$ |
| Assets..... | 154,737,883 | 172,173,681 | 208,517,770 | 262,386,415 |
| Small loan balances..... | 81,840,415 | 88,822,891 | 88,844,506 | 88,428,203 |
| Balances, large loans and other contracts..... | 66,082,405 | 75,824,672 | 109,530,841 | 160,743,235 |
| Cash..... | 3,857,635 | 3,955,094 | 4,975,980 | 6,308,752 |
| Other..... | 2,957,428 | 3,571,024 | 5,166,443 | 6,906,225 |
| Liabilities..... | 154,737,883 | 172,173,681 | 208,517,770 | 262,386,415 |
| Borrowed money..... | 109,162,651 | 122,688,252 | 149,688,502 | 191,697,344 |
| Reserves for losses..... | 3,794,272 | 4,263,653 | 5,028,544 | 5,607,582 |
| Paid-up capital..... | 9,456,449 | 10,383,509 | 12,264,662 | 13,978,275 |
| Surplus paid in by shareholders..... | 12,222,570 | 11,587,820 | 11,578,629 | 12,078,629 |
| Other..... | 20,101,941 | 23,250,447 | 29,957,433 | 39,024,585 |

The combined companies showed a moderate decrease in the number and amount of small loans made during 1956 as compared with 1955, and reported a slight increase in the number and amount of small loans balances outstanding in the same comparison. During 1956, 844,348 small loans valued at \$184,293,692 were made as against 860,134 loans amounting to \$191,248,350 in 1955. The average small loan was approximately \$210 in 1956. At the end of that year small loans outstanding numbered 543,394 for an amount of \$88,428,203 or an average of \$163; at the end of 1955 the outstanding loans numbered 529,704 and amounted to \$88,844,506 or an average of \$168 per loan.

Section 3.—Sales of Canadian Bonds*

Previous editions of the Year Book trace the sales of Canadian bonds to the end of 1954. This review continues through 1955 and 1956 the record of new issues placed.

During the period under review, the principal trend was caused by a harder monetary policy which began in the latter part of 1955 and was continued during the following year. A decline in prices and a rise in yields, particularly in the short-term and medium-term issues, provided an opportunity for discerning investors to increase the proportion of high-grade bonds in their portfolios. This development constituted a 'prime movement' on the bond market which was felt particularly by large institutional investors.

In the flotation of new issues, offerings of Canadian⁷ bonds and debentures in 1955 (excluding issues with a term to maturity of less than one year) totalled \$2,661,516,323, down sharply from 1954. In 1956, however, the comparable total increased considerably to \$3,093,670,267 although it was still under the all-time peak of \$4,468,983,364 in 1954. These declines were mainly the result of a sharp drop in Government of Canada financing from \$3,200,540,900 in 1954 to \$1,348,500,000 in 1955 and \$1,357,000,000 in 1956. On the other hand, provincial financing (including provincial guaranteed issues) and municipal financing (including parochial school issues) were both higher in 1955 and 1956 than in 1954. In this respect, all provincial financing totalled \$434,165,000 in 1955 and \$557,888,000 in 1956 compared with \$400,916,000 in 1954, while all municipal financing (exclusive of that guaranteed by the provinces) totalled \$293,055,423 in 1955 and \$318,597,867 in 1956 compared with \$260,993,664 in 1954. As far as new issues in the corporate field were concerned, there was a decrease in 1955 at \$585,795,900 but a marked increase in 1956 at \$860,184,400 when compared with the total of \$606,532,800 in 1954.

In the field of federal financing for 1955 and 1956, very considerable new capital was acquired by public subscription to Canada Savings Bonds Series Ten (Nov. 1, 1955) and Series Eleven (Nov. 1, 1956). In common with all other Canadian Savings Loan issues, these flotations were limited to purchases by individuals only, as distinct from both corporate and individual purchases allowed for the Victory Loan issues of 1941 to 1945 inclusive, and the two War Loans of 1940.

As a distinctive feature, not found in previous issues, the Series Eleven Savings Loan issue of 1956 paid interest on a sliding scale—the first payment being made after six months and annually thereafter. This scale called for a rate of $3\frac{1}{4}$ p.c. payable on two coupons for the first year and a half; $3\frac{1}{2}$ p.c. payable on two coupons for the next two years; $3\frac{3}{4}$ p.c. payable on two coupons for the next two years; and 4 p.c. payable on seven coupons thereafter to a maturity on May 1, 1969. Altogether, an average rate of 3.76 p.c. made this security a most attractive issue and caused a greater exchange of previous issues into Series Eleven than for any of the former Savings Loans.

* Prepared by E. C. Gould, Financial Editor, *The Monetary Times*.
91593—74

6.—Sales of and Applications for Federal Government Bonds, Feb. 1, 1940 to Nov. 1, 1956

(Source: *The Monetary Times*)

| Type and Date of Loan | Purchases by Individuals | Purchases by Corporations | Total Cash Sales | Applications |
|-----------------------------------|--------------------------------|---------------------------------|------------------------|--------------|
| | \$'000 | \$'000 | \$'000 | No. |
| War Loans— | | | | |
| Feb. 1, 1940..... | 132,000 | 68,000 | 200,000 | 178,363 |
| Oct. 1, 1940..... | 113,000 | 187,000 | 300,000 | 150,890 |
| Victory Loans— | | | | |
| June 15, 1941..... | 279,500 | 450,900 | 730,400 | 968,259 |
| Mar. 1, 1942..... | 335,600 | 507,500 | 843,100 | 1,681,267 |
| Nov. 1, 1942..... | 374,600 | 616,800 | 991,400 | 2,032,154 |
| May 1, 1943..... | 529,500 | 779,200 | 1,308,700 | 2,668,420 |
| Nov. 1, 1943..... | 599,700 | 775,300 | 1,375,000 | 3,033,051 |
| May 1, 1944..... | 641,500 | 765,500 | 1,405,000 | 3,077,123 |
| Nov. 1, 1944..... | 766,400 | 751,200 | 1,517,600 | 3,327,315 |
| May 1, 1945..... | 836,300 | 732,600 | 1,563,619 ¹ | 3,178,275 |
| Nov. 1, 1945..... | 1,221,342 | 801,132 | 2,027,487 ¹ | 2,947,636 |
| Savings Loans—² | \$ | \$ | \$ | |
| Nov. 1, 1946..... | 535,285,550 | — | 535,285,550 | 1,248,444 |
| Nov. 1, 1947..... | 287,733,100 | — | 287,733,100 | 910,742 |
| Nov. 1, 1948..... | 260,491,150 | — | 260,491,150 | 862,686 |
| Nov. 1, 1949..... | 320,200,000 | — | 320,200,000 | 1,015,579 |
| Nov. 1, 1950..... | 285,600,000 | — | 285,600,000 | 963,048 |
| Nov. 1, 1951..... | 394,642,400 | — | 394,642,400 | 986,900 |
| Nov. 1, 1952..... | 380,761,100 | — | 380,761,100 | 982,274 |
| Nov. 1, 1953..... | 850,548,900 | — | 850,548,900 | 1,267,506 |
| Nov. 1, 1954..... | 800,540,900 | — | 800,540,900 | 1,175,264 |
| Nov. 1, 1955..... | 729,100,000 | — | 729,100,000 | 1,180,000 |
| Nov. 1, 1956..... | 850,000,000 | — | 850,000,000 | 1,234,000 |

¹ Department of Finance figures.² Total subscriptions were limited to \$2,000 for any one individual for the 1946 issue, \$1,000 for the issues of 1947-50 inclusive and \$5,000 for the issues of 1951-56. Figures for the issues 1946-55 are for the entire loans, i.e., either to the year-end or to the closing date within the year or in subsequent years. The figure for Series Eleven (1956) is approximate as at mid-July 1957.

Excluded from Table 6 on federal financing are the short-term issues in the form of treasury bills with a maturity of less than one year. These totals amounted to \$4,580,500,000 in 1955 and \$6,420,000,000 in 1956. If included, they would bring the grand total of all federal borrowing to \$5,929,000,000 in 1955 and \$7,777,000,000 in 1956. Comparable figure for 1954 was \$6,980,540,900.

Although Canadian short-term financing of less than one year dates back to the 1930's when Government of Canada treasury bills were first introduced, it did not become of particular importance outside the banking system until 1954. This development arose because an increasing number of corporations and other investors turned to securities of less than one year for the profitable employment of short-term surplus funds not required for immediate business needs. An expanding market for treasury bills, in turn, has enabled the Government of Canada to increase substantially the total of bills outstanding with important gains in terms of convenience and economy.

On Nov. 1, 1956, the Bank of Canada announced that there would no longer be periodic changes in the Bank Rate but that it would be maintained at one-quarter of one percent above the average yield price received at each week's sale of 91-day treasury bills. This change was intended to make the Bank Rate more flexible and responsive to changing conditions in the short-term money market. It was also felt by some observers that the previous method of making changes in the Bank Rate caused certain disturbances and dislocations that could be avoided by continuous smaller adjustments.

In the field of combined direct and guaranteed financing by Canadian provinces, the totals for both 1955 and 1956 were higher than the total of 1954. Total financing in this category amounted to \$434,165,000 in 1955 of which \$222,349,000 was direct and \$211,816,000 was guaranteed municipal financing by various provincial governments. Comparable figures for 1956 show total financing of \$557,888,000 of which \$279,350,000 was direct and \$278,538,000 was guaranteed by various provincial governments. These totals compare with \$400,916,000 in 1954 of which \$226,032,000 was direct and \$174,884,000 represented guaranteed provincial financing.

Provinces which directly entered the bond market in 1955 and 1956 were:—

| <i>Province</i> | <i>Month</i> | <i>Amount</i> | <i>Province</i> | <i>Month</i> | <i>Amount</i> |
|--------------------|----------------|----------------|---------------------------|----------------|----------------|
| 1955— | | \$'000 | 1956— | | \$'000 |
| New Brunswick..... | January..... | 11,500 | Nova Scotia..... | January..... | 12,000 |
| New Brunswick..... | February..... | 6,849 | Prince Edward Island..... | February..... | 1,700 |
| Saskatchewan..... | April..... | 10,000 | Manitoba..... | March..... | 12,000 |
| Quebec..... | April..... | 23,250 | New Brunswick..... | March..... | 7,400 |
| Newfoundland..... | April..... | 16,000 | New Brunswick..... | April..... | 5,000 |
| Nova Scotia..... | May..... | 10,000 | Ontario..... | April..... | 50,000 |
| Quebec..... | June..... | 37,750 | Ontario..... | May..... | 60,000 |
| Ontario..... | July..... | 50,000 | New Brunswick..... | September..... | 6,000 |
| Saskatchewan..... | September..... | 10,000 | Saskatchewan..... | October..... | 8,000 |
| New Brunswick..... | September..... | 10,000 | New Brunswick..... | November..... | 6,500 |
| Saskatchewan..... | December..... | 25,000 | Ontario..... | November..... | 50,000 |
| Nova Scotia..... | December..... | 12,000 | Manitoba..... | December..... | 10,000 |
| | | | Nova Scotia..... | December..... | 10,000 |
| | | | Saskatchewan..... | December..... | 15,750 |
| | | | Quebec..... | December..... | 25,000 |
| TOTAL, 1955..... | | <u>222,349</u> | TOTAL, 1956..... | | <u>279,350</u> |

In the field of direct municipal financing (i.e., exclusive of municipal financing guaranteed by various provinces) the market for new issues held up well in both 1955 and 1956, continuing the postwar trend. Local improvements constituted the principal purposes for such borrowing with the most important needs for new schools and waterworks. There were instances, however, when tight money conditions created problems for investment dealers so that some issues had to be postponed or the terms of the offerings altered to make them more attractive to buyers. When flotations for municipal parochial school purposes are included, total municipal sales amounted to \$293,055,423 in 1955 and \$318,597,867 in 1956, both up from a total of \$260,993,664 in 1954. The municipalities of Montreal, Toronto, Winnipeg, Hamilton, Regina, Vancouver, Kingston and Ottawa were among the most important borrowers.

During 1955 and 1956, corporate financing totalled \$585,795,900 and \$860,184,400, respectively, compared with \$606,632,800 in 1954. Among issues of particular interest, the International Bank for Reconstruction and Development offered \$15,000,000, 3½ p.c., ten-year Canadian dollar bonds which were very well received by investors. During the same period, there was a more active new issue market in uranium corporate bonds with a number of fairly large flotations. Debenture issues of pipeline and oil-producing companies were also popular in 1956 as a result of further discoveries in Western Canada and also perhaps of unsettled conditions in the Middle East.

A noteworthy issue in the miscellaneous field consisted of \$15,000,000 Commonwealth of Australia, 4 p.c., fifteen-year bonds. This issue was offered in November 1955, the first time an Australian bond issue was ever placed in Canada.

During the tight money period of the latter part of 1955 and 1956, underwriters of many new bond issues displayed considerable ingenuity in tailoring them to meet the requirements of the market and the needs of the issuer. In this regard, a growing number of conversion privileges and stock purchase warrants were attached to assist in the sale of securities while a number of major Canadian corporations raised equity capital through the issuance of rights to shareholders. In addition, a growing number of borrowers

accepted the exchange risk by going to the New York market where, at times, funds were more readily available. As a result, Canadian bond sales in the United States increased considerably in 1956 although they were down somewhat for the entire year 1955 compared with 1954. Total sales on the American market for the three years were \$470,532,982 in 1956, \$154,563,000 in 1955 and \$173,598,000 in 1954. The drop in 1955 was accounted for by the fact that money was fairly plentiful in Canada in the earlier months of that year. Indeed, most of the 1955 total of sales in the United States came in the latter months after the effect of credit restrictions was felt.

As a general result of monetary restrictions, the year 1956 was a most unusual one for new bond sales in Canada. In face of an expanding economy, the demand for money became so strong that not only did the cost factor rise very substantially but, in some instances, ready funds were not obtainable at any price. As a result, many borrowers found it difficult or impossible to finance issues they would have regarded as normal borrowing in previous years. Indeed, it is necessary to go back a quarter of a century or more to find a year when Canadian corporations and municipalities were forced to postpone new capital issues because of the shortage and consequent high cost of funds on the Canadian bond market.

7.—Sales of Canadian Bonds by Class of Bond and Country of Sale 1947-56

(SOURCE: *The Monetary Times*)

NOTE.—Figures from 1904 are given in the corresponding table of previous Year Books beginning with the 1933 edition.

| Year | CLASS OF BOND | | | | | |
|------------|----------------------|-------------|-------------|-----------------------------|-------------|---------------|
| | Federal ¹ | Provincial | Municipal | Parochial and Miscellaneous | Corporation | Total |
| | \$ | \$ | \$ | \$ | \$ | \$ |
| 1947 | 293,333,100 | 229,562,000 | 238,887,410 | 14,968,600 | 379,674,500 | 1,156,425,610 |
| 1948 | 445,491,150 | 312,619,500 | 84,014,291 | 21,010,000 | 310,506,000 | 1,173,640,941 |
| 1949 | 790,200,000 | 449,347,000 | 134,796,184 | 23,853,200 | 285,268,000 | 1,683,464,384 |
| 1950 | 2,167,600,000 | 373,824,500 | 150,369,281 | 30,466,369 | 431,180,303 | 3,153,440,453 |
| 1951 | 594,642,400 | 369,552,000 | 196,438,916 | 37,907,921 | 451,630,000 | 1,650,211,237 |
| 1952 | 830,761,100 | 426,973,000 | 147,690,940 | 49,264,100 | 573,539,000 | 2,028,228,140 |
| 1953 | 1,950,548,900 | 436,616,900 | 186,784,460 | 35,242,605 | 336,295,800 | 2,945,488,665 |
| 1954 | 3,200,540,900 | 400,916,000 | 209,640,778 | 51,352,886 | 606,532,800 | 4,468,983,364 |
| 1955 | 1,348,500,000 | 434,165,000 | 226,981,573 | 66,063,850 | 585,795,900 | 2,661,516,323 |
| 1956 | 1,357,000,000 | 557,888,000 | 265,936,167 | 52,661,700 | 860,184,400 | 3,093,670,267 |

| Year | COUNTRY OF SALE | | | |
|------------|---------------------|---------------|----------------|---------------|
| | Canada ¹ | United States | United Kingdom | Total |
| | \$ | \$ | \$ | \$ |
| 1947 | 1,068,114,610 | 88,311,000 | — | 1,156,425,610 |
| 1948 | 1,023,640,941 | 150,000,000 | — | 1,173,640,941 |
| 1949 | 1,543,464,384 | 140,000,000 | — | 1,683,464,384 |
| 1950 | 2,980,740,453 | 172,700,000 | — | 3,153,440,453 |
| 1951 | 1,266,188,237 | 384,023,000 | — | 1,650,211,237 |
| 1952 | 1,743,578,115 | 284,650,025 | — | 2,028,228,140 |
| 1953 | 2,638,889,450 | 306,599,215 | — | 2,945,488,665 |
| 1954 | 4,295,385,364 | 173,598,000 | — | 4,468,983,364 |
| 1955 | 2,506,953,323 | 154,563,000 | — | 2,661,516,323 |
| 1956 | 2,623,137,285 | 470,532,982 | — | 3,093,670,267 |

¹ Excludes treasury bills, deposit certificates and other financing for a term of less than one year.

CHAPTER XXVII.—INSURANCE*

CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

Insurance, for the purpose of statistical analysis, is usually classified as life, fire and casualty. Most companies operate under Federal Government registration although some have provincial licences only. Also many fraternal orders and societies are engaged in this kind of business. The special articles relating to insurance that have appeared in previous editions of the Year Book are listed in Part II of Chapter XXIX under the heading "Insurance".

Section 1.—Life Insurance†

Life insurance in force in Canada with companies registered by the Federal Government (exclusive of fraternal benefit societies) was over \$25,452,000,000 at the end of 1956, an increase of over \$2,317,000,000 during the year. The ratio of gain in business in force expressed as a percentage of the amount in force at the beginning of the same year, which ranged between 9.0 and 11.2 during the 1946-55 period, reached 14.3p.c. in 1956 its highest point since the end of World War II.

| Year | In Force at Beginning of Year | Increase in Force for the Year | Per- centage Gain |
|-----------|-------------------------------------|--------------------------------------|-------------------------|
| | \$ | \$ | |
| 1930..... | 6,157,000,000 | 335,000,000 | 5.4 |
| 1935..... | 6,221,000,000 | 38,000,000 | 0.6 |
| 1940..... | 6,776,000,000 | 200,000,000 | 2.9 |
| 1945..... | 9,140,000,000 | 612,000,000 | 6.7 |
| 1946..... | 9,752,000,000 | 1,061,000,000 | 10.9 |
| 1947..... | 10,813,000,000 | 1,089,000,000 | 10.1 |
| 1948..... | 11,902,000,000 | 1,204,000,000 | 10.1 |
| 1949..... | 13,106,000,000 | 1,303,000,000 | 9.9 |
| 1950..... | 14,409,000,000 | 1,337,000,000 | 9.3 |
| 1951..... | 15,746,000,000 | 1,490,000,000 | 9.5 |
| 1952..... | 17,236,000,000 | 1,855,000,000 | 10.8 |
| 1953..... | 19,091,000,000 | 2,136,000,000 | 11.2 |
| 1954..... | 21,227,000,000 | 1,908,000,000 | 9.0 |
| 1955..... | 23,135,000,000 | 2,317,000,000 | 10.0 |
| 1956..... | 25,452,000,000 | 3,635,000,000 | 14.3 |

* Material in this Chapter, except as otherwise indicated, has been revised under the direction of K. R. MacGregor, Superintendent of Insurance, Department of Insurance, Ottawa.

† All the amounts given in the tables of this Section are net amounts after deduction of reinsurance ceded.

Subsection 1.—Total Registered Life Insurance in Force in Canada

Table 1 summarizes the volume of life insurance business transacted in Canada in 1954, 1955 and 1956 by Canadian, British and foreign life insurance companies and by fraternal societies, whether registered by the Federal Government or licensed by the provinces.

1.—Life Insurance Transacted in Canada 1954-56

| Business Transacted by— | Insurance Premiums | Claims ¹ | New Policies Effectuated | Insurance in Force, Dec. 31 |
|---|-----------------------|---------------------|--------------------------------|-----------------------------------|
| | \$ | \$ | \$ | \$ |
| 1954 | | | | |
| Federal Registrations | 492,778,074 | 158,641,215 | 2,705,457,929 | 23,482,120,974 |
| Life companies..... | 486,409,812 | 154,481,756 | 2,656,722,341 | 23,134,578,868 |
| Fraternal societies..... | 6,368,262 | 4,159,459 | 48,735,588 | 347,542,106 |
| Provincial Licensees | 27,842,856 | 8,932,337 | 280,919,279 | 1,290,183,490 |
| Provincial Companies within Province by which they are Incorporated— | | | | |
| Life companies..... | 16,992,734 | 4,259,389 | 196,414,288 | 811,038,511 |
| Fraternal societies..... | 6,383,185 | 2,772,022 | 46,146,117 | 277,200,589 |
| Provincial Companies in Provinces other than those by which they are Incorporated— | | | | |
| Life companies..... | 2,354,074 | 576,644 | 20,352,957 | 94,627,831 |
| Fraternal societies..... | 2,112,863 | 1,324,282 | 18,005,917 | 107,316,559 |
| Totals, 1954 | 520,620,930 | 167,573,552 | 2,986,377,208 | 24,772,304,464 |
| Canadian Life Companies— | | | | |
| Federal..... | 325,154,008 | 104,470,590 | 1,823,008,957 | 15,765,916,390 |
| Provincial..... | 19,346,808 | 4,836,033 | 216,767,245 | 905,666,342 |
| Canadian Fraternal Societies— | | | | |
| Federal..... | 2,935,749 | 2,427,404 | 33,152,586 | 203,898,002 |
| Provincial..... | 8,496,048 | 4,096,304 | 64,152,034 | 384,517,148 |
| British life companies..... | 14,145,587 | 3,893,600 | 104,306,211 | 596,756,619 |
| Foreign life companies..... | 147,110,217 | 46,117,566 | 729,407,173 | 6,771,905,859 |
| Foreign fraternal societies..... | 3,432,513 | 1,732,055 | 15,583,002 | 143,644,104 |
| 1955 | | | | |
| Federal Registrations | 526,723,999 | 165,862,878 | 3,213,196,875 | 25,817,466,823 |
| Life companies..... | 520,098,190 | 161,883,205 | 3,154,670,863 | 25,451,571,525 |
| Fraternal societies..... | 6,625,809 | 3,979,673 | 58,526,012 | 365,895,298 |
| Provincial Licensees | 29,182,573 | 8,520,674 | 351,600,976 | 1,497,587,789 |
| Provincial Companies within Province by which they are Incorporated— | | | | |
| Life companies..... | 19,175,465 | 4,560,952 | 268,187,266 | 1,052,896,304 |
| Fraternal societies..... | 4,819,255 | 2,245,023 | 35,458,980 | 211,247,923 |
| Provincial Companies in Provinces other than those by which they are Incorporated— | | | | |
| Life companies..... | 2,814,786 | 405,440 | 30,702,596 | 119,780,515 |
| Fraternal societies..... | 2,373,067 | 1,309,259 | 17,252,134 | 113,663,047 |
| Totals, 1955 | 555,906,572 | 174,383,552 | 3,564,797,851 | 17,315,054,612 |
| Canadian Life Companies— | | | | |
| Federal..... | 347,407,718 | 107,953,211 | 2,149,050,981 | 17,401,229,498 |
| Provincial..... | 21,990,251 | 4,966,392 | 298,889,862 | 1,172,676,819 |

For footnote, see end of table.

1.—Life Insurance Transacted in Canada 1954-56—concluded

| Business Transacted by— | Insurance Premiums | Claims ¹ | New Policies Effectuated | Insurance in Force, Dec. 31 |
|---|-----------------------|---------------------|--------------------------------|-----------------------------------|
| | \$ | \$ | \$ | \$ |
| 1955—concluded | | | | |
| Canadian Fraternal Societies— | | | | |
| Federal..... | 2,959,276 | 2,434,037 | 40,176,418 | 215,050,782 |
| Provincial..... | 7,192,322 | 3,554,282 | 52,711,114 | 324,910,970 |
| British life companies..... | 16,528,219 | 3,717,408 | 124,429,637 | 691,660,141 |
| Foreign life companies..... | 156,162,253 | 50,212,586 | 881,190,245 | 7,358,681,886 |
| Foreign fraternal societies..... | 3,666,533 | 1,545,636 | 18,349,594 | 150,844,516 |
| 1956 | | | | |
| Federal Registrations..... | 571,878,944 | 184,926,378 | 4,187,402,603 | 29,486,692,163 |
| Life companies..... | 564,723,434 | 180,852,023 | 4,119,767,664 | 29,087,416,143 |
| Fraternal societies..... | 7,155,510 | 4,074,355 | 67,634,939 | 399,276,020 |
| Provincial Licensees..... | 33,082,660 | 10,369,482 | 351,521,176 | 1,779,673,222 |
| Provincial Companies within Province by which they are Incorporated— | | | | |
| Life companies..... | 22,386,624 | 5,956,099 | 255,503,923 | 1,279,801,907 |
| Fraternal societies..... | 5,068,198 | 2,304,339 | 39,591,754 | 233,106,842 |
| Provincial Companies in Provinces other than those by which they are Incorporated— | | | | |
| Life companies..... | 3,334,979 | 690,630 | 39,799,924 | 151,406,232 |
| Fraternal societies..... | 2,292,859 | 1,418,414 | 16,625,575 | 115,358,241 |
| Totals, 1956..... | 604,961,604 | 195,295,860 | 4,538,923,779 | 31,266,365,355 |
| Canadian Life Companies— | | | | |
| Federal..... | 377,531,692 | 120,978,895 | 2,697,441,456 | 19,783,194,985 |
| Provincial..... | 25,721,603 | 6,646,729 | 295,303,847 | 1,431,208,139 |
| Canadian Fraternal Societies— | | | | |
| Federal..... | 3,420,452 | 2,453,467 | 46,481,330 | 238,087,472 |
| Provincial..... | 7,361,057 | 3,722,753 | 56,217,329 | 348,465,083 |
| British life companies..... | 19,759,474 | 5,066,155 | 159,182,181 | 819,968,279 |
| Foreign life companies..... | 167,432,268 | 54,806,973 | 1,263,144,027 | 8,484,252,879 |
| Foreign fraternal societies..... | 3,735,058 | 1,620,888 | 21,153,609 | 161,188,548 |

¹ Death, disability and maturity of insurance and annuity contracts; for fraternal benefit societies annuity contracts do not apply.

Subsection 2.—Operational Statistics of Life Insurance Companies under Federal Registration

The amount of life insurance in force in Canada has shown an almost continuous advance year by year since the beginning of the record in 1869. The amount per capita of the estimated population has almost doubled since 1947—evidence of the general recognition of the value of life insurance for the adequate protection of dependants against misfortune. During 1956, life insurance business was transacted in Canada by 82 active companies having federal registration, including 32 Canadian, 8 British and 30 foreign companies. In addition there were 5 British and 5 foreign companies which wrote no new insurance during the year, their business being confined to policies already on their books. Two foreign companies registered in 1956 had written no business in Canada.

The operations analysed in the tables of this Subsection, with the exception of Table 6, include only those companies under federal registration and are exclusive of fraternal organizations and provincial licensees. However, as indicated in Table 1, operations of the companies included account for about 93 p.c. of the life insurance in force in Canada.

2.—Life Insurance in Force and Effected in Canada by Companies under Federal Registration, Decennially 1880-1940 and Annually 1941-56

NOTE.—Figures for 1880-1900 are given at p. 958 of the 1938 Year Book, and for 1901-39 at p. 855 of the 1942 edition. Statistics of fraternal society insurance, excluded here, are given at pp. 1172-1174.

| Year | Insurance in Force Dec. 31 | | | | Insurance in Force per Capita ¹ | New Insurance Effected during Year |
|-----------|----------------------------|-------------------|-------------------|----------------|--|------------------------------------|
| | Canadian Companies | British Companies | Foreign Companies | Total | | |
| | \$ | \$ | \$ | \$ | \$ | \$ |
| 1880..... | 37,838,518 | 19,789,863 | 33,643,745 | 91,272,126 | 21.45 | 13,906,887 |
| 1890..... | 135,218,990 | 31,613,730 | 81,591,847 | 248,424,567 | 51.98 | 39,802,956 |
| 1900..... | 267,151,086 | 39,485,344 | 124,433,416 | 431,069,846 | 81.32 | 67,729,115 |
| 1910..... | 565,667,110 | 47,816,775 | 242,629,174 | 856,113,059 | 122.51 | 150,785,305 |
| 1920..... | 1,664,348,605 | 76,883,090 | 915,793,798 | 2,657,025,493 | 310.55 | 630,110,900 |
| 1930..... | 4,319,370,209 | 117,410,860 | 2,055,502,125 | 6,492,283,194 | 636.00 | 884,749,748 |
| 1940..... | 4,609,213,977 | 145,603,299 | 2,220,505,184 | 6,975,322,460 | 612.89 | 590,205,536 |
| 1941..... | 4,835,925,659 | 145,597,309 | 2,367,027,774 | 7,348,550,742 | 638.62 | 688,344,283 |
| 1942..... | 5,184,568,369 | 152,289,487 | 2,538,897,449 | 7,875,755,305 | 675.80 | 818,558,946 |
| 1943..... | 5,586,515,285 | 162,287,617 | 2,785,290,816 | 8,534,093,718 | 723.53 | 887,522,851 |
| 1944..... | 6,001,984,634 | 171,997,834 | 2,965,501,763 | 9,139,484,231 | 765.07 | 900,501,491 |
| 1945..... | 6,440,615,383 | 183,779,511 | 3,126,645,941 | 9,751,040,835 | 807.74 | 1,002,576,955 |
| 1946..... | 7,201,285,815 | 205,626,216 | 3,405,480,833 | 10,812,392,864 | 879.63 | 1,393,522,667 |
| 1947..... | 7,964,185,291 | 238,614,767 | 3,697,458,162 | 11,900,258,220 | 948.15 | 1,453,255,487 |
| 1948..... | 8,830,952,866 | 270,105,626 | 4,004,294,358 | 13,105,352,850 | 1,022.02 | 1,504,248,947 |
| 1949..... | 9,808,084,850 | 306,032,801 | 4,294,644,199 | 14,408,761,850 | 1,071.52 | 1,636,356,612 |
| 1950..... | 10,756,249,942 | 342,878,530 | 4,646,707,595 | 15,745,836,067 | 1,148.33 | 1,798,864,211 |
| 1951..... | 11,807,992,826 | 391,382,883 | 5,036,207,593 | 17,235,583,302 | 1,230.32 | 1,990,926,006 |
| 1952..... | 13,085,349,418 | 443,275,711 | 5,562,003,368 | 19,090,628,497 | 1,322.98 | 2,287,264,465 |
| 1953..... | 14,526,740,295 | 519,137,847 | 6,181,027,477 | 21,226,905,619 | 1,436.09 | 2,551,393,073 |
| 1954..... | 15,765,916,390 | 596,756,619 | 6,771,905,859 | 23,134,578,868 | 1,513.35 | 2,656,722,341 |
| 1955..... | 17,401,229,498 | 691,660,141 | 7,358,681,886 | 25,451,571,525 | 1,621.33 | 3,154,670,863 |
| 1956..... | 19,783,194,985 | 819,968,279 | 8,484,252,879 | 29,087,416,143 | 1,808.81 | 4,119,767,664 |

¹ Based on official estimates of population given at p. 119.

3.—Life Insurance Transacted in Canada by Companies under Federal Registration 1954-56

| Year and Nationality of Company | Policies Effected | | Policies in Force Dec. 31 | | Insurance Premiums | Claims ¹ |
|---------------------------------|-------------------|----------------------|---------------------------|-----------------------|--------------------|---------------------|
| | No. | Amount | No. | Amount | | |
| | | \$ | | \$ | \$ | \$ |
| 1954 | | | | | | |
| Canadian..... | 347,050 | 1,823,008,957 | 4,469,146 | 15,765,916,390 | 325,154,008 | 104,470,590 |
| British..... | 19,378 | 104,306,211 | 182,015 | 596,756,619 | 14,145,587 | 3,893,600 |
| Foreign..... | 352,531 | 729,407,173 | 5,130,609 | 6,771,905,859 | 147,110,217 | 46,117,566 |
| Totals, 1954..... | 718,959 | 2,656,722,341 | 9,781,770 | 23,134,578,868 | 486,409,812 | 154,481,756 |
| 1955 | | | | | | |
| Canadian..... | 351,659 | 2,149,050,981 | 4,592,921 | 17,401,229,498 | 347,407,718 | 107,953,211 |
| British..... | 20,590 | 124,429,637 | 191,687 | 691,660,141 | 16,528,219 | 3,717,408 |
| Foreign..... | 356,508 | 881,190,245 | 5,143,250 | 7,358,681,886 | 156,162,253 | 50,212,586 |
| Totals, 1955..... | 728,757 | 3,154,670,863 | 9,927,858 | 25,451,571,525 | 520,098,190 | 161,883,205 |
| 1956 | | | | | | |
| Canadian..... | 374,767 | 2,697,441,456 | 4,733,923 | 19,783,194,985 | 377,531,692 | 120,978,895 |
| British..... | 24,428 | 159,182,181 | 205,218 | 819,968,279 | 19,759,474 | 5,066,155 |
| Foreign..... | 352,594 | 1,263,144,027 | 5,160,454 | 8,484,252,879 | 167,432,268 | 54,806,973 |
| Totals, 1956..... | 751,789 | 4,119,767,664 | 10,099,595 | 29,087,416,143 | 564,723,434 | 180,852,023 |

¹ Death, disability and maturity of insurance and annuity contracts.

4.—Summary of Life Insurance Business in Canada by Companies under Federal Registration 1954-56

| Item | 1954 | 1955 | 1956 |
|--|----------------|----------------|----------------|
| Canadian Companies— | | | |
| New policies effected during year.....No. | 347,050 | 351,659 | 374,767 |
|\$ | 1,823,008,957 | 2,149,050,981 | 2,697,441,456 |
| Policies in force Dec. 31.....No. | 4,469,146 | 4,592,921 | 4,733,923 |
|\$ | 15,765,916,390 | 17,401,229,498 | 19,783,194,985 |
| Policies ceased by death or maturity.....No. | 36,519 | 37,287 | 40,829 |
|\$ | 98,514,809 | 102,381,507 | 114,713,331 |
| Insurance premiums.....\$ | 325,154,008 | 347,407,718 | 377,531,692 |
| Claims incurred ¹\$ | 104,470,590 | 107,953,211 | 120,978,895 |
| British Companies— | | | |
| New policies effected during year.....No. | 19,378 | 20,590 | 24,428 |
|\$ | 104,306,211 | 124,429,637 | 159,182,181 |
| Policies in force Dec. 31.....No. | 182,015 | 191,687 | 205,218 |
|\$ | 596,756,619 | 691,660,141 | 819,968,279 |
| Policies ceased by death or maturity.....No. | 2,632 | 2,176 | 2,203 |
|\$ | 3,486,350 | 3,275,821 | 4,572,232 |
| Insurance premiums.....\$ | 14,145,587 | 16,528,219 | 19,759,474 |
| Claims incurred ¹\$ | 3,893,600 | 3,717,408 | 5,066,155 |
| Foreign Companies— | | | |
| New policies effected during year.....No. | 352,531 | 356,508 | 352,594 |
|\$ | 729,407,173 | 881,190,245 | 1,263,144,027 |
| Policies in force Dec. 31.....No. | 5,130,609 | 5,143,250 | 5,160,454 |
|\$ | 6,771,905,859 | 7,358,681,886 | 8,484,252,879 |
| Policies ceased by death or maturity.....No. | 58,793 | 61,724 | 65,317 |
|\$ | 42,548,409 | 46,730,255 | 50,861,990 |
| Insurance premiums.....\$ | 147,110,217 | 156,162,253 | 167,432,268 |
| Claims incurred ¹\$ | 46,117,566 | 50,212,586 | 54,806,973 |
| All Companies— | | | |
| New policies effected during year.....No. | 718,959 | 728,757 | 751,789 |
|\$ | 2,656,722,341 | 3,154,670,863 | 4,119,767,664 |
| Policies in force Dec. 31.....No. | 9,781,770 | 9,927,858 | 10,099,595 |
|\$ | 23,134,578,868 | 25,451,571,525 | 29,087,416,143 |
| Policies ceased by death or maturity.....No. | 97,944 | 101,187 | 108,349 |
|\$ | 144,549,568 | 152,387,583 | 170,147,553 |
| Insurance premiums.....\$ | 486,409,812 | 520,098,190 | 564,723,434 |
| Claims incurred ¹\$ | 154,481,756 | 161,883,205 | 180,852,023 |

¹ Death, disability and maturity of insurance and annuity contracts.

5.—Ordinary and Industrial Life Insurance Policies in Force and Effected in Canada by Companies under Federal Registration 1954-56

| Year, Type of Policy and Nationality of Company | New Policies Effected | | | Policies in Force Dec. 31 | | |
|---|-----------------------|---------------|-------------------------------------|---------------------------|----------------|-------------------------------------|
| | No. | Amount | Average Amount of a Policy | No. | Amount | Average Amount of a Policy |
| 1954 | | \$ | \$ | | \$ | \$ |
| Ordinary Policies— | | | | | | |
| Canadian..... | 297,096 | 1,484,726,597 | 4,997 | 3,799,891 | 11,836,027,348 | 3,115 |
| British..... | 19,360 | 102,830,190 | 5,311 | 139,467 | 563,718,425 | 4,042 |
| Foreign..... | 159,331 | 499,993,511 | 3,138 | 1,845,585 | 3,691,220,394 | 2,000 |
| Industrial Policies— | | | | | | |
| Canadian..... | 48,902 | 53,803,881 | 1,100 | 660,940 | 560,932,462 | 849 |
| British..... | — | — | — | 42,467 | 6,209,013 | 146 |
| Foreign..... | 192,241 | 91,081,906 | 474 | 3,279,176 | 1,137,994,970 | 347 |

**5.—Ordinary and Industrial Life Insurance Policies in Force and Effected
in Canada by Companies under Federal Registration 1954-56—concluded**

| Year, Type of Policy and Nationality of Company | New Policies Effected | | | Policies in Force Dec. 31 | | |
|---|-----------------------|---------------|-------------------------------------|---------------------------|----------------|-------------------------------------|
| | No. | Amount | Average Amount of a Policy | No. | Amount | Average Amount of a Policy |
| 1955 | | \$ | \$ | | \$ | \$ |
| Ordinary Policies— | | | | | | |
| Canadian..... | 303,507 | 1,666,529,229 | 5,491 | 3,926,252 | 12,884,370,483 | 3,282 |
| British..... | 20,564 | 121,477,288 | 5,907 | 151,764 | 655,173,628 | 4,317 |
| Foreign..... | 239,219 | 662,472,508 | 2,769 | 1,975,381 | 4,094,475,717 | 2,073 |
| Industrial Policies— | | | | | | |
| Canadian..... | 46,966 | 53,410,346 | 1,137 | 657,650 | 571,120,106 | 868 |
| British..... | — | — | — | 39,821 | 5,718,334 | 144 |
| Foreign..... | 115,960 | 53,499,320 | 461 | 3,161,004 | 1,117,247,581 | 353 |
| 1956 | | | | | | |
| Ordinary Policies— | | | | | | |
| Canadian..... | 329,413 | 2,010,864,403 | 6,104 | 4,070,464 | 14,295,274,819 | 3,512 |
| British..... | 24,396 | 154,740,111 | 6,343 | 167,491 | 775,957,517 | 4,633 |
| Foreign..... | 274,157 | 916,533,176 | 3,343 | 2,132,126 | 4,786,009,610 | 2,245 |
| Industrial Policies— | | | | | | |
| Canadian..... | 43,797 | 50,650,450 | 1,156 | 653,418 | 580,676,297 | 889 |
| British..... | — | — | — | 37,595 | 5,302,185 | 141 |
| Foreign..... | 74,527 | 34,628,743 | 465 | 3,017,999 | 1,081,932,330 | 358 |

6.—Insurance Death Rates in Canada 1954-56

| Type of Insurer | 1954 | | | 1955 | | | 1956 | | |
|-------------------------------------|-----------------------------------|---|-------------------------------|-----------------------------------|---|-------------------------------|-----------------------------------|---|-------------------------------|
| | Policies Exposed to Risk | Policies Ter- minated by Death | Death Rate per 1,000 | Policies Exposed to Risk | Policies Ter- minated by Death | Death Rate per 1,000 | Policies Exposed to Risk | Policies Ter- minated by Death | Death Rate per 1,000 |
| | No. | No. | | No. | No. | | No. | No. | |
| All companies, ordinary..... | 5,694,739 | 29,975 | 5.3 | 5,934,497 | 30,641 | 5.2 | 6,228,005 | 32,531 | 5.2 |
| All companies, Industrial..... | 3,998,290 | 30,222 | 7.6 | 3,935,385 | 29,711 | 7.6 | 3,799,191 | 30,895 | 8.1 |
| Fraternal benefit societies..... | 356,231 | 3,826 | 10.7 | 362,670 | 3,878 | 10.7 | 371,406 | 3,994 | 10.8 |
| Totals..... | 10,049,260 | 64,023 | 6.4 | 10,232,552 | 64,230 | 6.3 | 10,398,602 | 67,420 | 6.5 |

**Subsection 3.—Finances of Life Insurance Companies under
Federal Registration**

The financial statistics of Tables 7 and 8 cover only life insurance companies under federal registration and do not include fraternal organizations and provincial licensees. The figures for British and foreign companies apply to their assets, liabilities and operations in Canada only, but assets and liabilities, income and expenditure of Canadian companies arise in part from business abroad.

7.—Total Assets and Liabilities of Canadian Life Insurance Companies under Federal Registration and Assets and Liabilities in Canada of British and Foreign Life Insurance Companies 1954-56.

NOTE.—Owing to a change in actuarial practice, these figures are not strictly comparable with those for earlier years published in previous issues of the Year Book.

| Assets and Liabilities | 1954 | 1955 | 1956 |
|---|----------------------|----------------------|----------------------|
| | \$ | \$ | \$ |
| Canadian Companies¹ | | | |
| Assets² | 5,872,374,293 | 6,278,437,331 | 6,669,605,421 |
| Bonds..... | 3,371,666,730 | 3,399,239,159 | 3,382,818,042 |
| Stocks..... | 331,818,541 | 331,109,151 | 355,444,914 |
| Mortgage loans on real estate..... | 1,575,364,303 | 1,907,768,012 | 2,228,944,199 |
| Agreements of sale of real estate..... | 4,636,000 | 6,273,664 | 5,674,120 |
| Real estate..... | 135,805,198 | 157,322,383 | 185,787,700 |
| Collateral loans..... | 38,007 | 41,651 | 54,711 |
| Policy loans..... | 286,752,514 | 299,009,095 | 320,413,469 |
| Cash..... | 52,417,517 | 60,308,475 | 64,047,524 |
| Investment income, due and accrued..... | 52,592,860 | 56,102,418 | 59,609,374 |
| Outstanding insurance premiums and annuity considerations.. | 52,918,176 | 53,263,727 | 56,435,022 |
| Other assets..... | 8,364,447 | 7,999,596 | 10,376,346 |
| Liabilities | 5,565,330,860 | 5,924,339,215 | 6,285,301,743 |
| Actuarial reserve for contracts in force..... | 4,681,968,128 | 4,980,295,198 | 5,277,270,480 |
| Outstanding claims under contracts..... | 47,259,594 | 50,000,896 | 54,504,703 |
| Sundry liabilities..... | 836,103,138 | 894,043,121 | 953,526,560 |
| Surplus..... | 294,317,623 | 340,670,776 | 370,620,688 |
| Capital stock paid up..... | 12,725,810 | 13,427,340 | 13,682,990 |
| British Companies | | | |
| Assets² | 235,473,069 | 263,895,518 | 284,339,559 |
| Bonds..... | 152,973,015 | 159,830,131 | 161,069,833 |
| Stocks..... | 34,910,432 | 44,689,551 | 49,650,673 |
| Mortgage loans on real estate..... | 33,780,769 | 45,580,976 | 59,066,079 |
| Real estate..... | 2,972,220 | 3,769,415 | 3,823,933 |
| Policy loans..... | 4,397,106 | 4,805,767 | 5,569,502 |
| Cash..... | 4,427,669 | 3,133,203 | 2,776,569 |
| Investment income, due and accrued..... | 816,737 | 816,565 | 939,666 |
| Outstanding insurance premiums and annuity considerations.. | 1,090,467 | 1,143,406 | 1,295,972 |
| Other assets..... | 104,654 | 126,504 | 147,332 |
| Liabilities | 194,749,936 | 224,542,319 | 258,508,138 |
| Actuarial reserve for contracts in force..... | 191,060,034 | 220,565,756 | 252,810,542 |
| Outstanding claims under contracts..... | 1,036,304 | 1,083,698 | 2,203,921 |
| Sundry liabilities..... | 2,653,598 | 2,892,865 | 3,493,675 |
| Excess of assets over liabilities in Canada..... | 40,723,133 | 39,353,199 | 25,831,421 |
| Foreign Companies | | | |
| Assets² | 1,218,197,749 | 1,260,803,893 | 1,248,135,204 |
| Bonds..... | 967,713,422 | 976,991,572 | 919,065,711 |
| Stocks..... | 802,500 | 2,040,000 | 1,920,000 |
| Mortgage loans on real estate..... | 164,322,057 | 191,872,727 | 232,349,015 |
| Real estate..... | 1,129,513 | 2,359,717 | 2,967,693 |
| Policy loans..... | 56,982,533 | 58,564,638 | 61,803,000 |
| Cash..... | 9,429,727 | 11,922,796 | 10,752,445 |
| Investment income, due and accrued..... | 12,395,780 | 12,008,391 | 13,430,502 |
| Outstanding insurance premiums and annuity considerations.. | 5,388,138 | 4,928,429 | 5,714,077 |
| Other assets..... | 34,079 | 115,623 | 132,761 |
| Liabilities | 1,082,959,747 | 1,142,302,030 | 1,203,509,722 |
| Actuarial reserve for contracts in force..... | 1,001,310,698 | 1,053,975,949 | 1,109,151,162 |
| Outstanding claims under contracts..... | 7,786,692 | 8,371,379 | 9,568,572 |
| Sundry liabilities..... | 73,862,357 | 79,954,702 | 84,789,988 |
| Excess of assets over liabilities in Canada..... | 135,238,002 | 118,501,863 | 44,625,482 |

¹ A detailed classification of assets of Canadian companies will be found in the *Report of the Superintendent of Insurance, Vol. I.* ² At book values. The liabilities include a reserve equal to the amount, if any, by which the total book value of bonds, stocks and real estate exceeds the total market value (or amortized value where applicable). ³ At market values.

8.—Total Revenue and Expenditure of Canadian Life Insurance Companies under Federal Registration and Revenue and Expenditure in Canada of British and Foreign Life Insurance Companies 1954-56.

NOTE.—Owing to a change in actuarial practice, these figures are not strictly comparable with those for earlier years published in previous editions of the Year Book.

| Principal Items | 1954 | 1955 | 1956 |
|---|--------------------|--------------------|----------------------|
| | \$ | \$ | \$ |
| Canadian Companies | | | |
| Revenue | 920,446,519 | 995,544,068 | 1,056,775,813 |
| Insurance premiums and annuity considerations..... | 668,573,802 | 719,881,207 | 758,619,224 |
| Investment income..... | 224,148,030 | 246,248,673 | 270,454,649 |
| Sundry items..... | 27,724,687 | 29,414,188 | 27,701,940 |
| Expenditure | 875,547,083 | 945,260,087 | 1,002,652,421 |
| Claims incurred..... | 306,200,035 | 323,181,859 | 349,072,338 |
| Normal increase in actuarial reserve..... | 292,477,293 | 321,052,491 | 328,052,231 |
| Taxes, licences and fees..... | 16,332,731 | 18,984,460 | 20,260,986 |
| Commissions and general expenses..... | 138,145,005 | 150,465,249 | 164,929,268 |
| Sundry items..... | 46,301,207 | 48,635,875 | 50,745,716 |
| Dividends to policyholders..... | 63,418,115 | 70,525,717 | 81,178,919 |
| Increase in provision for profits to policyholders..... | 12,672,697 | 12,414,436 | 8,412,963 |
| Analysis of Increase in Surplus— | | | |
| Excess of revenue over expenditure..... | 44,899,436 | 50,283,981 | 54,123,392 |
| Net capital gain on investments..... | 1,732,060 | 9,978,060 | 5,708,517 |
| Other credits to surplus (net)..... | 2,798,277 | 6,283,794 | —1,811,073 |
| Net increase in special reserves..... | —2,868,585 | —1,675,318 | —13,755,598 |
| Special increase in actuarial reserve..... | —15,792,592 | —15,333,472 | —10,904,848 |
| Dividends to shareholders..... | —2,525,088 | —3,183,891 | —3,403,835 |
| Increase in surplus (policyholders and shareholders)..... | 28,243,508 | 46,353,154 | 29,956,555 |
| British Companies | | | |
| Revenue | 44,113,635 | 50,399,004 | 58,304,361 |
| Insurance premiums and annuity considerations..... | 35,556,317 | 40,447,928 | 46,651,341 |
| Investment income..... | 8,023,213 | 9,239,343 | 11,043,121 |
| Sundry items..... | 534,105 | 711,733 | 609,899 |
| Expenditure | 18,160,555 | 20,757,514 | 27,410,445 |
| Claims incurred..... | 9,548,482 | 10,631,587 | 14,396,371 |
| Taxes, licences and fees..... | 343,826 | 391,801 | 439,636 |
| Commissions and general expenses..... | 6,151,692 | 6,874,757 | 8,330,419 |
| Other expenditure..... | 691,431 | 467,397 | 766,102 |
| Dividends to policyholders..... | 1,425,124 | 2,391,972 | 3,477,917 |
| Excess of revenue over expenditure | 25,953,080 | 29,641,490 | 30,893,916 |
| Foreign Companies | | | |
| Revenue | 207,116,134 | 218,858,547 | 235,823,146 |
| Insurance premiums and annuity considerations..... | 154,999,433 | 164,267,699 | 176,614,651 |
| Investment income..... | 44,429,578 | 45,868,654 | 49,989,480 |
| Sundry items..... | 7,687,123 | 8,722,194 | 9,219,015 |
| Expenditure | 136,603,748 | 147,913,683 | 164,341,693 |
| Claims incurred..... | 70,064,235 | 75,856,746 | 81,958,540 |
| Taxes, licences and fees..... | 3,106,920 | 3,552,501 | 4,175,255 |
| Commissions and general expenses..... | 36,080,199 | 38,623,304 | 45,013,227 |
| Other expenditure..... | 7,487,273 | 7,661,931 | 8,615,035 |
| Dividends to policyholders..... | 19,865,121 | 22,219,201 | 24,579,636 |
| Excess of revenue over expenditure | 70,512,386 | 70,944,864 | 71,481,453 |

Subsection 4.—Life Insurance Effected through Fraternal Benefit Societies

In addition to life insurance, some fraternal benefit societies grant other insurance benefits to members, notably sickness benefits, but these are relatively unimportant. Table 9 gives statistics of life insurance effected through fraternal benefit societies by

Canadian members, together with statistics of assets, liabilities, income and expenditure relating to all business of Canadian societies and to the business in Canada of foreign societies. The rates charged by these societies are computed to be sufficient to provide the benefits granted, having regard for actuarial principles. The benefit funds of each society must be valued annually by a qualified actuary (Fellow, by examination, of the Institute of Actuaries of Great Britain, of the Faculty of Actuaries in Scotland, or of the Society of Actuaries) and a readjustment of rates or benefits must be made, unless the actuary certifies to the solvency of each fund. The statistics of the first section of Table 9 relate to the 16 Canadian societies reporting to the Department of Insurance of the Federal Government, of which only one does not grant life insurance benefits.

Under an amendment to the Insurance Act, effective Jan. 1, 1920, all foreign fraternal benefit societies were required to obtain authority from the Federal Government prior to transacting business in Canada. However, any such societies which at that date were transacting business under provincial licences, though forbidden to accept new members, were permitted to continue all necessary transactions in respect of insurance already in force. Most of these societies and some foreign societies that had not previously been licensed by the provinces have since obtained federal authority to transact business. Of both classes of societies, 32 transacted business in Canada during 1956; two of the societies do not grant life insurance benefits.

9.—Life Insurance in Canada of Fraternal Benefit Societies reporting to the Federal Department of Insurance 1954-56

| Item | 1954 | 1955 | 1956 |
|--|--------------------|--------------------|--------------------|
| Canadian Societies | | | |
| Summary— | | | |
| Premium income..... \$ | 2,935,749 | 2,959,276 | 3,420,452 |
| Benefits paid..... \$ | 3,229,450 | 3,372,010 | 3,421,129 |
| New certificates effected..... No. | 24,437 | 22,673 | 26,157 |
| Certificates in force Dec. 31..... \$ | 33,152,586 | 40,176,418 | 46,481,330 |
| No. | 214,069 | 213,264 | 224,187 |
| Certificates ceased as claims..... \$ | 203,898,002 | 215,050,782 | 238,087,472 |
| No. | 3,005 | 2,987 | 3,066 |
| \$ | 2,544,168 | 2,431,194 | 2,544,066 |
| | \$ | \$ | \$ |
| Assets¹..... | 107,077,460 | 112,008,594 | 118,214,286 |
| Real estate..... | 5,008,479 | 4,886,953 | 4,657,906 |
| Real estate held under agreements of sale..... | 731,529 | 707,933 | 752,791 |
| Loans on real estate..... | 10,539,654 | 11,023,159 | 13,188,424 |
| Policy loans and liens..... | 4,016,226 | 4,107,531 | 4,202,091 |
| Bonds, debentures and stocks..... | 83,085,531 | 86,610,561 | 91,752,653 |
| Cash..... | 1,758,584 | 2,698,276 | 1,461,695 |
| Interest and rents due or accrued..... | 732,106 | 751,279 | 819,744 |
| Outstanding and deferred premiums and contributions..... | 890,058 | 1,122,173 | 1,263,350 |
| Other..... | 315,293 | 100,729 | 115,632 |
| Liabilities¹..... | 95,500,017 | 99,849,317 | 106,461,553 |
| Reserve under contracts in force..... | 85,075,664 | 87,744,278 | 92,075,848 |
| Outstanding claims..... | 440,302 | 456,348 | 468,822 |
| Other..... | 9,984,051 | 11,648,691 | 13,916,883 |
| Income¹..... | 17,041,639 | 19,499,093 | 20,763,777 |
| Premiums..... | 6,101,848 | 6,049,680 | 7,735,412 |
| Received for expense purposes..... | 5,629,688 | 7,071,185 | 7,240,359 |
| Interest and rents..... | 3,958,353 | 4,171,103 | 4,351,710 |
| Other..... | 1,351,750 | 2,207,125 | 1,436,296 |

¹ Includes business outside Canada.

**9.—Life Insurance in Canada of Fraternal Benefit Societies reporting to the
Federal Department of Insurance 1954-56—concluded**

| Item | 1954 | 1955 | 1956 |
|--|-------------------|-------------------|-------------------|
| | \$ | \$ | \$ |
| Canadian Societies—concluded | | | |
| Expenditure¹ | 12,555,745 | 14,091,687 | 14,439,860 |
| Benefits paid under certificates..... | 6,618,684 | 6,808,940 | 6,801,783 |
| Expenses..... | 5,764,933 | 7,049,061 | 7,402,530 |
| Other disbursements..... | 172,128 | 233,686 | 235,547 |
| Excess of income over expenditure..... | 4,485,894 | 5,407,406 | 6,323,917 |
| Foreign Societies | | | |
| Summary— | | | |
| Premium income..... \$ | 3,432,513 | 3,666,533 | 3,735,058 |
| Benefits paid..... \$ | 2,538,993 | 2,435,430 | 2,631,055 |
| New certificates effected..... No. | 8,734 | 8,829 | 9,517 |
| Certificates in force Dec. 31..... \$ | 15,583,002 | 18,349,594 | 21,153,609 |
| No. | 119,360 | 122,197 | 124,758 |
| Certificates ceased as claims..... \$ | 143,644,104 | 150,844,516 | 161,188,548 |
| No. | 1,416 | 1,419 | 1,447 |
| \$ | 1,596,093 | 1,447,618 | 1,534,103 |
| | \$ | \$ | \$ |
| Assets | 40,276,083 | 41,138,912 | 40,746,405 |
| Real estate..... | 952,595 | 952,595 | 952,595 |
| Loans on real estate..... | 317,475 | 432,332 | 1,176,584 |
| Policy loans and liens..... | 2,139,629 | 2,356,563 | 2,574,379 |
| Bonds, debentures and stocks..... | 34,842,897 | 35,304,760 | 34,080,021 |
| Cash..... | 1,379,880 | 1,429,006 | 1,250,264 |
| Interest and rents due or accrued..... | 320,327 | 343,158 | 368,875 |
| Outstanding and deferred premiums and contributions..... | 323,280 | 320,498 | 339,862 |
| Other..... | — | — | 3,825 |
| Liabilities | 33,752,100 | 35,633,433 | 37,586,413 |
| Reserve under contracts in force..... | 30,693,815 | 32,298,849 | 34,014,242 |
| Outstanding claims..... | 518,519 | 580,839 | 572,687 |
| Other..... | 2,539,766 | 2,753,745 | 2,999,484 |
| Income | 8,132,960 | 8,419,127 | 8,837,182 |
| Premiums..... | 4,956,239 | 5,240,503 | 5,390,553 |
| Received for expense purposes..... | 1,313,950 | 1,314,206 | 1,456,058 |
| Interest and rents..... | 1,250,117 | 1,270,595 | 1,367,495 |
| Other..... | 612,654 | 593,823 | 623,076 |
| Expenditure | 4,793,746 | 4,852,120 | 5,272,598 |
| Benefits paid under certificates..... | 3,436,299 | 3,391,021 | 3,720,121 |
| Expenses..... | 888,356 | 983,277 | 1,023,908 |
| Other disbursements..... | 469,091 | 477,822 | 528,569 |
| Excess of income over expenditure..... | 3,339,214 | 3,567,007 | 3,564,584 |

¹ Includes business outside Canada.

**Subsection 5.—Life Insurance in Force Outside Canada by Registered
Canadian Companies**

Tables 10 and 11 give summary statistics of insurance in force as at Dec. 31, 1954 and 1955, in currencies other than Canadian, classified by companies and by the currencies in which business was written. The data given here are in Canadian dollars, mainly at

par rates of exchange, for the countries concerned, but there are several exceptions where, for purposes of account, certain companies have converted foreign currencies at rates other than par, particularly where the current rate differs substantially from the par rate. Approximately 70 p.c. of all such business in force was written in United States currency and 16 p.c. in sterling. From another standpoint approximately 25 p.c. was written in currencies of Commonwealth countries outside Canada and 75 p.c. in currencies of foreign countries.

Canadian life insurance companies operating under Federal Government registration at Dec. 31, 1955, had life insurance in force amounting to \$7,892,914,084 in countries outside Canada. Insurance in force in currencies other than Canadian amounted to \$7,845,488,568 and the difference between these figures is presumably the net amount of non-Canadian business transacted in Canadian currency. As against the total non-Canadian business, including annuity business, the Commonwealth and foreign investments of Canadian life insurance companies as at Dec. 31, 1955 amounted to \$2,226,851,749. As the business in force in Canada of these companies at Dec. 31, 1955 amounted to \$17,401,229,498, the total business on their books, Canadian and non-Canadian, amounted to \$25,294,143,582. Thus over 31 p.c. of the total business in force was outside Canada.

10.—Life Insurance Effectuated and in Force of Canadian Companies (excluding Fraternal Societies) operating under Federal Registration, in Currencies other than Canadian, by Company 1954 and 1955.

| Year and Company | Insurance Effectuated | | | Insurance in Force Dec. 31 | | |
|--------------------------|-------------------------|--------------------|----------------------|----------------------------|----------------------|----------------------|
| | Commonwealth Currencies | Foreign Currencies | Total | Commonwealth Currencies | Foreign Currencies | Total |
| | \$ | \$ | \$ | \$ | \$ | \$ |
| 1954 | | | | | | |
| Alliance Nationale..... | — | — | — | — | 3,492,225 | 3,492,225 |
| Canada..... | 21,819,084 | 66,023,798 | 87,842,882 | 169,864,935 | 395,220,365 | 565,085,300 |
| Commercial..... | — | — | — | — | 35,000 | 35,000 |
| Confederation..... | 17,503,323 | 52,177,496 | 69,680,819 | 157,593,040 | 248,542,797 | 406,135,837 |
| Continental..... | — | — | — | 22,767 | 106,318 | 129,085 |
| Crown..... | 10,003,608 | 81,651,052 | 91,654,660 | 79,069,387 | 373,657,487 | 452,726,874 |
| Dominion..... | 1,390,626 | 17,247,490 | 18,638,116 | 11,653,899 | 112,278,972 | 123,932,871 |
| Dom. of Canada General | 350,755 | — | 350,755 | 3,244,253 | 3,000 | 3,247,253 |
| T. Eaton..... | — | — | — | 12,500 | 3,333 | 15,833 |
| Equitable..... | — | — | — | — | 128,379 | 128,379 |
| Great-West..... | — | 210,226,202 | 210,226,202 | 79,154 | 872,007,447 | 872,086,601 |
| Imperial..... | 15,854,081 | 2,595,498 | 18,449,579 | 91,252,854 | 41,441,708 | 132,694,562 |
| London..... | — | 393,615 | 393,615 | — | 6,156,093 | 6,156,093 |
| Manufacturers..... | 66,349,799 | 75,085,165 | 141,434,964 | 380,301,382 | 561,118,732 | 941,420,114 |
| Maritime..... | 81,985 | — | 81,985 | 2,206,400 | 41,111 | 2,247,511 |
| Monarch..... | — | 105,985 | 105,985 | — | 324,507 | 324,507 |
| Montreal..... | — | — | — | 204,365 | 328,036 | 532,401 |
| Mutual..... | — | 406,283 | 406,283 | 826,685 | 18,685,354 | 19,512,039 |
| National..... | 3,500,671 | 1,434,980 | 4,935,660 | 10,719,206 | 4,103,947 | 14,823,153 |
| North American..... | 3,885,504 | 22,886,959 | 26,772,463 | 16,725,935 | 105,142,753 | 121,868,688 |
| Northern..... | — | 2,361,478 | 2,361,478 | 58,850 | 19,029,927 | 19,088,777 |
| Sauvegarde..... | — | — | — | — | 5,000 | 5,000 |
| Sun..... | 131,319,819 | 320,055,713 | 451,375,532 | 967,008,173 | 2,475,346,001 | 3,442,354,174 |
| Western..... | — | — | — | — | 54,936 | 54,936 |
| Totals, 1954..... | 272,059,255 | 852,651,723 | 1,124,710,978 | 1,890,843,785 | 5,237,253,428 | 7,128,097,213 |

10.—Life Insurance Effected and in Force of Canadian Companies (excluding Fraternal Societies) operating under Federal Registration, in Currencies other than Canadian, by Company 1954 and 1955—concluded.

| Year and Company | Insurance Effected | | | Insurance in Force Dec. 31 | | |
|--------------------------|--------------------------|--------------------|----------------------|----------------------------|----------------------|----------------------|
| | Common-wealth Currencies | Foreign Currencies | Total | Common-wealth Currencies | Foreign Currencies | Total |
| 1955 | \$ | \$ | \$ | \$ | \$ | \$ |
| Alliance Nationale..... | — | — | — | — | 3,424,845 | 3,424,845 |
| Canada..... | 27,722,218 | 74,620,408 | 102,342,626 | 188,114,258 | 455,473,137 | 643,587,395 |
| Commercial..... | — | — | — | — | 35,000 | 35,000 |
| Confederation..... | 20,927,621 | 62,924,932 | 83,852,553 | 170,153,654 | 286,192,488 | 456,346,142 |
| Continental..... | — | — | — | — | 104,414 | 127,051 |
| Crown..... | 9,325,997 | 95,342,211 | 104,668,208 | 81,483,378 | 446,449,666 | 527,933,044 |
| Dominion..... | 1,691,593 | 18,077,925 | 19,769,518 | 13,125,397 | 124,006,515 | 137,131,912 |
| Dom. of Canada General | 499,430 | — | 499,430 | 3,516,396 | 3,000 | 3,519,396 |
| T. Eaton..... | — | — | — | 12,500 | 3,333 | 15,833 |
| Equitable..... | — | — | — | — | 93,567 | 93,567 |
| Great-West..... | — | 158,784,651 | 158,784,651 | 107,070 | 1,004,024,365 | 1,004,131,435 |
| Imperial..... | 16,057,702 | 2,856,778 | 18,914,480 | 90,988,933 | 42,064,379 | 133,053,362 |
| London..... | — | 1,371,572 | 1,371,572 | — | 7,055,871 | 7,055,871 |
| Manufacturers..... | 68,943,295 | 112,761,401 | 181,704,696 | 433,363,045 | 642,380,994 | 1,075,744,039 |
| Maritime..... | 79,644 | 15,000 | 94,644 | 1,409,742 | 55,962 | 1,465,704 |
| Monarch..... | — | 36,103 | 36,103 | — | 348,935 | 348,935 |
| Montreal..... | — | — | — | 186,264 | 296,565 | 482,829 |
| Mutual..... | — | 2,229,378 | 2,229,378 | 721,531 | 19,817,721 | 20,539,252 |
| National..... | 3,617,463 | 1,920,173 | 5,537,636 | 13,299,443 | 5,606,932 | 18,906,375 |
| North American..... | 4,031,193 | 28,248,533 | 32,279,726 | 20,180,156 | 131,636,153 | 151,816,309 |
| Northern..... | — | 3,087,376 | 3,087,376 | 45,717 | 21,231,587 | 21,277,304 |
| Sauvegarde..... | — | — | — | — | 5,000 | 5,000 |
| Sun..... | 145,573,084 | 296,378,927 | 441,952,011 | 954,484,015 | 2,683,913,017 | 3,638,397,032 |
| Western..... | — | — | — | — | 50,936 | 50,936 |
| Totals, 1955..... | 298,469,240 | 858,655,368 | 1,157,124,608 | 1,971,214,186 | 5,874,274,382 | 7,845,488,568 |

11.—Life Insurance Effected and in Force of Canadian Companies (excluding Fraternal Societies) operating under Federal Registration, in Currencies other than Canadian, by Currency 1954 and 1955.

| Currency | 1954 | | 1955 | |
|--|--------------------|----------------------|--------------------|----------------------|
| | Insurance Effected | Insurance in Force | Insurance Effected | Insurance in Force |
| | \$ | \$ | \$ | \$ |
| Commonwealth Currencies..... | 272,059,255 | 1,890,843,785 | 298,469,240 | 1,971,214,186 |
| Pounds— | | | | |
| Sterling..... | 168,437,900 | 1,249,234,830 | 183,663,795 | 1,290,641,849 |
| Australia..... | — | 31,368 | — | 31,368 |
| British West Indies and Bermuda..... | 9,016,610 | 63,671,503 | 10,528,023 | 72,351,055 |
| Northern Rhodesia..... | 644,490 | 1,021,389 | 534,380 | 1,485,877 |
| South Africa..... | 46,265,257 | 251,694,044 | 53,092,945 | 277,371,173 |
| Southern Rhodesia..... | 5,184,706 | 15,686,465 | 6,397,371 | 20,516,983 |
| Dollars— | | | | |
| British Honduras..... | 32,870 | 736,424 | 43,775 | 726,599 |
| British West Indies, Bermuda and British | | | | |
| Guiana..... | 15,271,909 | 95,353,426 | 18,318,584 | 102,541,592 |
| Hong Kong..... | 1,050,902 | 10,437,822 | 1,169,123 | 10,691,108 |
| Malayan Straits..... | 6,070,069 | 28,273,809 | 5,104,694 | 27,033,855 |
| Rupees— | | | | |
| Ceylon..... | 4,888,048 | 36,073,096 | 4,747,016 | 35,586,126 |
| India..... | 10,248,360 | 118,276,496 | 10,964,094 | 108,881,654 |
| Pakistan..... | — | 1,459,790 | — | 1,059,083 |

11.—Life Insurance Effectuated and in Force of Canadian Companies (excluding Fraternal Societies) operating under Federal Registration, in Currencies other than Canadian, by Currency 1954 and 1955—concluded.

| Currency | 1954 | | 1955 | |
|---|-----------------------|----------------------|-----------------------|----------------------|
| | Insurance Effectuated | Insurance in Force | Insurance Effectuated | Insurance in Force |
| | \$ | \$ | \$ | \$ |
| Shillings— East Africa..... | 4,948,134 | 18,893,323 | 3,905,440 | 22,295,864 |
| Foreign Currencies | 852,651,723 | 5,237,253,428 | 858,655,368 | 5,874,274,382 |
| Bahts (Thailand)..... | — | 164,446 | — | 150,977 |
| Bolivars (Venezuela)..... | 2,922,892 | 35,272,671 | 2,283,193 | 33,193,201 |
| Cordobas (Nicaragua)..... | — | 7,907 | — | 7,907 |
| Dollars (United States of America)..... | 809,620,799 | 4,870,277,695 | 816,631,795 | 5,505,143,354 |
| Francs (France)..... | — | 13,946 | — | 11,470 |
| Francs (Switzerland)..... | — | 7,280 | — | 7,280 |
| Guilders (Netherlands)..... | — | 622,805 | — | 554,373 |
| Guilders (Netherlands Antilles)..... | 1,191,635 | 12,340,377 | 1,591,162 | 12,378,445 |
| Kyats (Burma)..... | — | 675,653 | — | 472,775 |
| Pesos (Argentina)..... | 583,438 | 15,681,666 | 804,157 | 11,171,523 |
| Pesos (Chile)..... | — | 137,989 | — | 358 |
| Pesos (Colombia)..... | 6,090,208 | 22,656,944 | 5,963,418 | 25,068,014 |
| Pesos (Cuba)..... | 19,194,409 | 169,157,985 | 16,090,779 | 170,770,522 |
| Pesos (Dominican Republic)..... | 1,134,574 | 1,407,481 | 2,624,305 | 4,246,898 |
| Pesos (Mexico)..... | 1,488,768 | 9,840,570 | 1,400,854 | 10,179,534 |
| Pesos (Philippines)..... | 8,962,915 | 57,901,086 | 8,375,801 | 60,066,402 |
| Pounds (Egypt)..... | — | 28,760,395 | — | 25,973,544 |
| Pounds (Israel)..... | 1,462,085 | 7,148,396 | 2,889,904 | 9,858,314 |
| Rupiahs (Indonesia)..... | — | 4,964,415 | — | 4,821,021 |
| Soles (Peru)..... | — | 204,566 | — | 189,351 |
| Yen (Japan)..... | — | 9,155 | — | 9,119 |
| Grand Totals | 1,124,710,978 | 7,128,097,213 | 1,157,124,608 | 7,845,488,568 |

Subsection 6.—Total Registered Life Insurance in Canada and Business of Canadian Organizations Abroad

Table 12 summarizes the business outside Canada of Canadian life companies and fraternal benefit societies. If to these figures is added the business in Canada of these organizations, as shown in Table 1, p. 1166, total business, domestic and external, of all Canadian life insurance companies and fraternal societies may be obtained. Again adding the business in Canada of British and foreign companies and fraternal societies, a grand total is obtained of all life insurance in Canada and of the life insurance business abroad of Canadian organizations; this total is shown in Table 13.

12.—Business of Registered Canadian Life Companies and Fraternal Societies Abroad 1954-56

NOTE.—Figures for business in Canada will be found in Table 1, p. 1166.

| Item | Premiums Received | Claims Paid ¹ | New Policies Effectuated | Insurance in Force Dec. 31 |
|-------------------------------|--------------------|--------------------------|--------------------------|----------------------------|
| | \$ | \$ | \$ | \$ |
| 1954 | | | | |
| Canadian Life Companies— | | | | |
| Federal..... | 225,631,138 | 84,382,122 | 1,126,942,476 | 7,178,548,235 |
| Provincial..... | — | — | — | — |
| Canadian Fraternal Societies— | | | | |
| Federal..... | 1,728,270 | 2,109,319 | 31,631,393 | 145,020,975 |
| Provincial..... | — | — | — | — |
| Totals, 1954 | 227,359,408 | 86,491,441 | 1,158,573,869 | 7,323,569,210 |

¹ Death, disability and maturity under insurance and annuity contracts.

² None reported.

**12.—Business of Registered Canadian Life Companies and Fraternal Societies
Abroad 1954-56—concluded**

| Item | Premiums Received | Claims Paid ¹ | New Policies Effectuated | Insurance in Force Dec. 31 |
|-------------------------------|----------------------|-----------------------------|-----------------------------|-------------------------------|
| | \$ | \$ | \$ | \$ |
| 1955 | | | | |
| Canadian Life Companies— | | | | |
| Federal..... | 238,518,828 | 89,068,814 | 1,157,761,485 | 7,892,914,084 |
| Provincial..... | 2 | 2 | 2 | 2 |
| Canadian Fraternal Societies— | | | | |
| Federal..... | 1,516,471 | 2,069,755 | 47,740,768 | 176,256,653 |
| Provincial..... | 2 | 2 | 2 | 2 |
| Totals, 1955..... | 240,035,299 | 91,138,569 | 1,205,502,253 | 8,069,170,737 |
| 1956 | | | | |
| Canadian Life Companies— | | | | |
| Federal..... | 245,960,782 | 88,643,546 | 1,268,633,072 | 8,723,055,155 |
| Provincial..... | 2 | 2 | 2 | 2 |
| Canadian Fraternal Societies— | | | | |
| Federal..... | 2,597,436 | 1,990,584 | 64,585,354 | 212,831,013 |
| Provincial..... | 2 | 2 | 2 | 2 |
| Totals, 1956..... | 248,558,218 | 90,634,130 | 1,333,218,426 | 8,935,886,168 |

¹ Death, disability and maturity under insurance and annuity contracts.² None reported.

**13.—Total Registered Life Insurance Business in Canada and of Canadian
Organizations Abroad 1954-56**

| Item | Premiums Received | Claims Paid ¹ | New Policies Effectuated | Insurance in Force Dec. 31 |
|----------------------------------|----------------------|-----------------------------|-----------------------------|-------------------------------|
| | \$ | \$ | \$ | \$ |
| 1954 | | | | |
| Canadian Life Companies— | | | | |
| Federal..... | 550,785,146 | 188,852,712 | 2,949,951,433 | 22,944,464,625 |
| Provincial..... | 19,346,808 | 4,836,033 | 216,767,245 | 905,666,342 |
| Canadian Fraternal Societies— | | | | |
| Federal..... | 4,664,019 | 4,536,723 | 64,783,979 | 348,918,977 |
| Provincial..... | 8,496,048 | 4,096,304 | 64,152,034 | 384,517,148 |
| British life companies..... | 14,145,587 | 3,893,600 | 104,306,211 | 596,756,619 |
| Foreign life companies..... | 147,110,217 | 46,117,566 | 729,407,173 | 6,771,905,859 |
| Foreign fraternal societies..... | 3,432,513 | 1,732,055 | 15,583,002 | 143,644,104 |
| Grand Totals, 1954..... | 747,980,338 | 254,064,993 | 4,144,951,077 | 32,095,873,674 |
| 1955 | | | | |
| Canadian Life Companies— | | | | |
| Federal..... | 585,926,546 | 197,022,025 | 3,306,812,466 | 25,294,143,582 |
| Provincial..... | 21,990,251 | 4,966,392 | 298,889,862 | 1,172,676,819 |
| Canadian Fraternal Societies— | | | | |
| Federal..... | 4,475,747 | 4,503,792 | 87,917,186 | 391,307,435 |
| Provincial..... | 7,192,322 | 3,554,282 | 52,711,114 | 324,910,970 |
| British life companies..... | 16,528,219 | 3,717,408 | 124,429,637 | 691,660,141 |
| Foreign life companies..... | 156,162,253 | 50,212,586 | 881,190,245 | 7,358,681,886 |
| Foreign fraternal societies..... | 3,666,533 | 1,545,636 | 18,349,594 | 150,844,516 |
| Grand Totals, 1955..... | 795,941,871 | 265,522,121 | 4,770,300,104 | 35,384,225,349 |

¹ Death, disability and maturity under insurance and annuity contracts.

13.—Total Registered Life Insurance Business in Canada and of Canadian Organizations Abroad 1954-56—concluded

| Item | Premiums Received | Claims Paid ¹ | New Policies Effectuated | Insurance in Force Dec. 31 |
|----------------------------------|----------------------|-----------------------------|-----------------------------|-------------------------------|
| | \$ | \$ | \$ | \$ |
| 1956 | | | | |
| Canadian Life Companies— | | | | |
| Federal..... | 623,492,474 | 209,622,441 | 3,966,074,528 | 28,506,250,140 |
| Provincial..... | 25,721,603 | 6,646,729 | 295,303,847 | 1,431,208,139 |
| Canadian Fraternal Societies— | | | | |
| Federal..... | 6,017,888 | 4,444,051 | 111,066,684 | 450,918,485 |
| Provincial..... | 7,361,057 | 3,722,753 | 56,217,329 | 348,465,083 |
| British life companies..... | 19,759,474 | 5,066,155 | 159,182,181 | 819,968,279 |
| Foreign life companies..... | 167,432,268 | 54,806,973 | 1,263,144,027 | 8,484,252,879 |
| Foreign fraternal societies..... | 3,735,058 | 1,620,888 | 21,153,609 | 161,188,548 |
| Grand Totals, 1956..... | 853,519,822 | 285,929,990 | 5,872,142,205 | 40,202,251,553 |

¹ Death, disability and maturity under insurance and annuity contracts.

Section 2.—Fire and Casualty Insurance

Most companies carrying on fire insurance in Canada also transact casualty insurance. At the end of 1956 there were 309 companies registered by the Federal Government to transact fire insurance (79 Canadian, 89 British and 141 foreign). Of that number, 295 companies (73 Canadian, 88 British and 134 foreign) were also registered to transact casualty insurance. At the same date, there were 88 companies registered to transact casualty insurance but not fire insurance (17 Canadian, 6 British and 65 foreign). In addition to the number registered to transact casualty insurance, there were 23 fraternal benefit societies carrying on accident and sickness insurance. Also a certain amount of business is done by companies under provincial registration. These companies generally confine their operations to the province of incorporation but may be allowed to sell insurance in other provinces.

Table 14 shows the division of all business in this field and indicates that the bulk of it (about 85 p.c. of the net premiums written) is transacted by companies having Federal Government registration. The fire insurance business and the casualty insurance business of federally registered companies are treated separately in Subsections 1 and 3 following, but finances for these classes cannot be segregated and are therefore covered together in Subsection 4. Fire losses are shown in Subsection 2.

14.—Fire and Casualty Insurance Transacted in Canada 1955-56

| Item | 1955 | | 1956 | |
|---|----------------------------|---------------------------|----------------------------|---------------------------|
| | Net Premiums Written | Net Claims Incurred | Net Premiums Written | Net Claims Incurred |
| | \$ | \$ | \$ | \$ |
| Fire Insurance | | | | |
| Dominion registered companies..... | 146,444,845 | 77,836,245 | 155,506,787 | 86,088,850 |
| Provincial Licensees..... | 15,071,983 | 9,299,116 | 16,068,792 | 9,790,651 |
| In province by which incorporated..... | 14,327,644 | 8,928,877 | 15,212,026 | 9,182,170 |
| Outside province by which incorporated..... | 744,344 | 370,239 | 856,766 | 608,481 |
| Lloyds, London..... | 6,408,710 | 7,727,080 | 7,929,385 | 7,224,404 |
| Totals, Fire..... | 167,925,543 | 94,862,441 | 179,504,964 | 103,103,905 |

14.—Fire and Casualty Insurance Transacted in Canada 1955-56—concluded

| Item | 1955 | | 1956 | |
|---|----------------------|---------------------|----------------------|---------------------|
| | Net Premiums Written | Net Claims Incurred | Net Premiums Written | Net Claims Incurred |
| | \$ | \$ | \$ | \$ |
| Casualty Insurance | | | | |
| Dominion registered companies..... | 371,279,373 | 214,344,911 | 415,457,714 | 267,131,048 |
| Provincial Licensees..... | 24,355,972 | 13,677,497 | 24,423,092 | 14,412,804 |
| In province by which incorporated..... | 22,165,202 | 12,506,633 | 22,037,214 | 12,614,206 |
| Outside province by which incorporated..... | 2,190,770 | 1,170,859 | 2,385,878 | 1,798,598 |
| Lloyds, London..... | 18,151,236 | 11,698,134 | 19,311,022 | 14,725,521 |
| Fraternal benefit societies..... | 28,158,121 | 25,112,093 | 31,155,462 | 28,211,295 |
| Totals, Casualty..... | 441,944,702 | 264,832,685 | 490,347,290 | 324,480,668 |
| Totals, Fire and Casualty..... | 609,870,245 | 359,695,126 | 669,852,254 | 427,584,573 |

Subsection 1.—Fire Insurance Business Transacted by Companies under Federal Registration

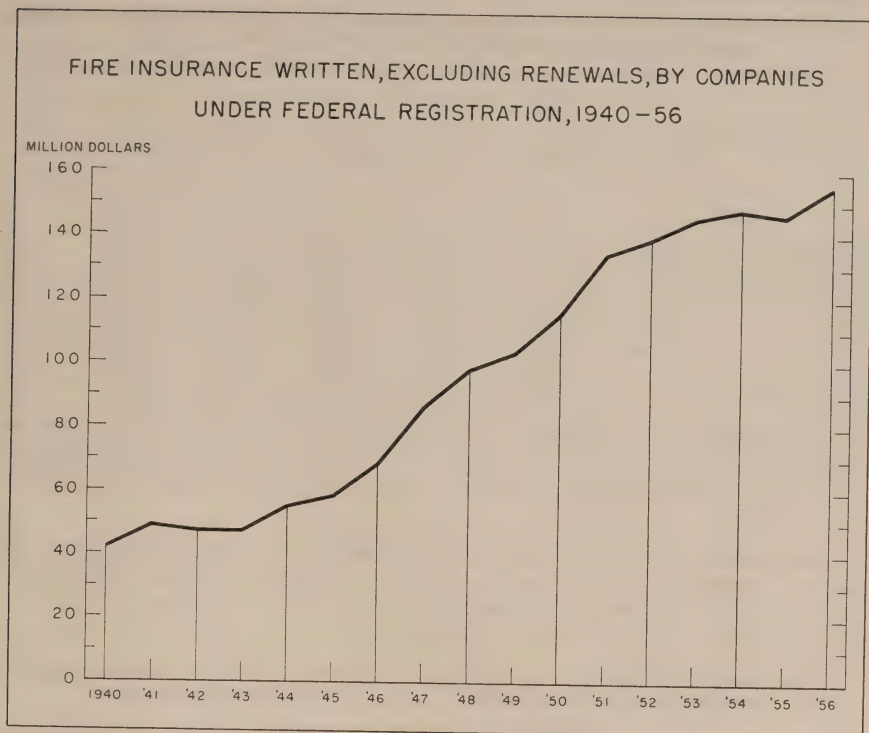
The amount of fire insurance written has increased very rapidly in recent years, having more than doubled since the end of the War. The percentage of claims incurred to premiums written has remained fairly constant during the period, as shown in Table 15.

15.—Fire Insurance by Companies Operating under Federal Registration, Decennially 1880-1940 and Annually 1941-56

NOTE.—Figures for 1869-1900 are given in the 1939 Year Book, p. 973, and for 1901-39 in the 1942 edition, pp. 847-848.

| Year | Net Premiums Written during Year | Net Claims Incurred during Year | Year | Net Premiums Written during Year | Net Claims Incurred during Year |
|-----------|----------------------------------|---------------------------------|-----------|----------------------------------|---------------------------------|
| | \$ | \$ | | \$ | \$ |
| 1880..... | 3,479,577 ¹ | 1,666,578 ² | 1945..... | 58,335,728 | 30,585,357 |
| 1890..... | 5,836,071 ¹ | 3,266,567 ² | 1946..... | 68,825,470 | 35,379,627 |
| 1900..... | 8,331,948 ¹ | 7,774,293 ² | 1947..... | 86,774,952 | 39,513,014 |
| 1910..... | 18,725,531 ¹ | 10,292,393 ² | 1948..... | 98,191,514 | 45,143,565 |
| 1920..... | 50,527,937 ¹ | 21,935,387 ² | 1949..... | 103,955,183 | 46,567,188 |
| 1930..... | 52,646,520 | 30,427,968 | 1950..... | 115,648,449 | 58,524,685 |
| 1940..... | 41,922,312 | 15,444,927 | 1951..... | 134,496,218 | 52,086,541 |
| | | | 1952..... | 139,777,732 | 61,124,918 |
| 1941..... | 49,305,539 | 17,814,322 | 1953..... | 145,937,546 | 68,787,604 |
| 1942..... | 47,272,440 | 20,360,534 | 1954..... | 148,446,105 | 70,445,544 |
| 1943..... | 47,153,094 | 22,181,244 | 1955..... | 146,444,845 | 77,836,245 |
| 1944..... | 55,027,051 | 28,921,930 | 1956..... | 155,506,787 | 86,088,850 |

¹ Net premiums received.² Net claims paid.



The relationship of claims incurred to premiums written is shown by province in Table 16.

16.—Fire Insurance in Canada by Canadian, British and Foreign Companies Operating under Federal Registration, by Province 1955 and 1956

(Registered reinsurance deducted)

| Year and Province | Canadian Companies | | British Companies | | Foreign Companies | |
|-------------------------------------|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | Premiums | Claims | Premiums | Claims | Premiums | Claims |
| | \$ | \$ | \$ | \$ | \$ | \$ |
| 1955 | | | | | | |
| Newfoundland..... | 402,820 | 166,456 | 1,134,193 | 381,265 | 469,359 | 126,175 |
| Prince Edward Island..... | 180,511 | 140,756 | 350,629 | 252,372 | 152,764 | 106,876 |
| Nova Scotia..... | 1,709,009 | 767,201 | 2,419,166 | 1,158,157 | 1,357,703 | 954,596 |
| New Brunswick..... | 1,310,679 | 599,114 | 2,268,790 | 1,087,864 | 1,394,415 | 562,089 |
| Quebec..... | 13,876,746 | 8,054,321 | 15,549,929 | 10,333,844 | 17,395,422 | 10,469,317 |
| Ontario..... | 18,773,036 | 8,790,027 | 18,363,415 | 9,473,570 | 19,114,557 | 9,588,972 |
| Manitoba..... | 3,326,799 | 1,767,468 | 2,202,276 | 1,224,741 | 2,205,855 | 1,022,586 |
| Saskatchewan..... | 3,258,146 | 1,187,101 | 1,290,029 | 1,550,123 | 1,713,614 | 1,392,101 |
| Alberta..... | 3,811,335 | 1,535,336 | 3,645,483 | 2,235,031 | 3,516,853 | 2,199,275 |
| British Columbia..... | 3,747,724 | 1,707,364 | 4,912,667 | 1,747,936 | 5,692,114 | 2,182,744 |
| All other Canada ¹ | 202,247 | 45,356 | 363,693 | 285,460 | 48,995 | 49,744 |
| Canada, 1955..... | 50,599,052 | 24,760,500 | 52,500,270 | 29,730,363 | 53,061,651 | 28,654,475 |

For footnote, see end of table, p. 1182.

16.—Fire Insurance in Canada by Canadian, British and Foreign Companies Operating under Federal Registration, by Province 1955 and 1956—concluded

| Year and Province | Canadian Companies | | British Companies | | Foreign Companies | |
|-------------------------------------|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | Premiums | Claims | Premiums | Claims | Premiums | Claims |
| | \$ | \$ | \$ | \$ | \$ | \$ |
| 1956 | | | | | | |
| Newfoundland..... | 511,140 | 288,232 | 1,217,388 | 614,355 | 480,866 | 174,118 |
| Prince Edward Island..... | 206,810 | 55,832 | 349,155 | 67,170 | 144,915 | 49,836 |
| Nova Scotia..... | 1,886,253 | 905,040 | 2,775,651 | 1,507,661 | 1,546,863 | 964,068 |
| New Brunswick..... | 1,348,426 | 588,231 | 2,280,291 | 1,062,893 | 1,377,928 | 779,265 |
| Quebec..... | 16,333,900 | 9,057,634 | 18,103,429 | 10,388,995 | 18,485,791 | 13,147,775 |
| Ontario..... | 20,580,426 | 10,573,116 | 20,217,277 | 10,620,338 | 21,376,691 | 11,069,390 |
| Manitoba..... | 3,452,239 | 1,840,281 | 2,225,417 | 1,589,389 | 2,238,852 | 1,517,346 |
| Saskatchewan..... | 3,320,666 | 1,203,473 | 1,351,711 | 636,252 | 1,792,369 | 915,554 |
| Alberta..... | 3,736,746 | 1,487,267 | 3,465,180 | 1,160,760 | 3,209,473 | 1,431,596 |
| British Columbia..... | 3,917,334 | 2,371,233 | 4,659,032 | 2,976,641 | 5,636,722 | 3,452,219 |
| All other Canada ¹ | 98,227 | —257,926 | 438,532 | 451,395 | 200,137 | 63,433 |
| Canada, 1956..... | 55,392,167 | 28,112,413 | 57,083,063 | 31,075,849 | 56,490,607 | 33,564,600 |

¹ Includes the Yukon and Northwest Territories, also certain 'floater' business that cannot be apportioned to any one province.

Classification of Fire Risks.—The Department of Insurance compiles, from information supplied by the fire insurance companies registered to transact business in Canada, tables of experience as to premiums and claims by 21 classes of risk. The experience of 1954 and 1955 is given in Table 17.

17.—Percentage of Claims Incurred to Premiums Written in Canada by All Companies Operating under Federal Registration, by Class of Risk 1954 and 1955

(Excluding all reinsurance ceded or assumed)

| Class of Risk | 1954 | 1955 | Class of Risk | 1954 | 1955 |
|--|-------|-------|--|--------------|--------------|
| | p. c. | p. c. | | p. c. | p. c. |
| Dwellings, excluding farms— | | | Lumber yards, pulpwood and standing timber..... | 18.82 | 43.29 |
| Protected brick..... | 57.23 | 42.63 | Wood-working plants..... | 40.24 | 45.76 |
| Protected frame..... | 43.03 | 44.53 | Metal-working plants, garages and hangars..... | 52.46 | 65.71 |
| Unprotected..... | 52.64 | 56.22 | Mining risks..... | 46.34 | 37.17 |
| Farm buildings..... | 60.65 | 67.37 | Railway and public utility risks..... | 49.77 | 60.74 |
| Churches, public buildings, educational and social service institutions..... | 51.59 | 57.02 | Miscellaneous manufacturing risks..... | 54.35 | 49.86 |
| Warehouses..... | 51.94 | 49.05 | Miscellaneous non-manufacturing risks | 48.71 | 50.88 |
| Retail stores, office buildings, banks and hotels..... | 51.57 | 53.94 | Sprinklered risks of whatever nature or occupancy..... | 40.96 | 79.22 |
| Contents of above item..... | 50.77 | 55.26 | Use and occupancy and profits, excluding rental insurance..... | 39.33 | 44.15 |
| Foods, food and beverage plants..... | 53.77 | 43.82 | | | |
| Flour and cereal mills, grain elevators..... | 20.14 | 25.27 | Averages..... | 47.71 | 53.25 |
| Oil risks of all kinds..... | 52.89 | 50.83 | | | |
| Saw and shingle mills..... | 49.23 | 38.45 | | | |

Subsection 2.—Fire Losses

The information in Tables 18 to 21, which deals with the loss of property and life caused by fire, has been summarized from the annual *Statistical Report of Fire Losses in Canada* prepared by the Dominion Fire Commissioner, Department of Public Works. Federal and other property losses not included in these figures amounted to \$8,621,910 in 1956 from 2,412 fires.

18.—Statistics of Fire Losses 1945-56

NOTE.—Figures for 1926-44 are given in the 1947 Year Book, p. 1078. Figures from 1898 may be obtained from the Dominion Fire Commissioner, Department of Public Works.

| Year | Fires Reported | Property Loss ¹ | Loss per Capita | Deaths by Fire | Year | Fires Reported | Property Loss ¹ | Loss per Capita | Deaths by Fire |
|-------------------------|----------------|----------------------------|-----------------|----------------|-------------------------|----------------|----------------------------|-----------------|----------------|
| | No. | \$ | \$ | No. | | No. | \$ | \$ | No. |
| 1945..... | 52,173 | 41,903,020 | 3.46 | 391 | 1951..... | 60,317 | 76,919,357 | 5.64 | 535 |
| 1946..... | 55,400 | 49,413,363 | 4.01 | 408 | 1952..... | 64,057 | 80,690,123 | 5.74 | 572 |
| 1947..... | 52,931 | 57,050,461 | 4.53 | 390 | 1953..... | 67,519 | 84,270,896 | 5.70 | 477 |
| 1948..... | 53,048 | 67,144,473 | 5.21 | 493 | 1954..... | 68,638 | 91,440,478 | 6.01 | 479 |
| 1949..... | 54,500 | 65,159,044 | 4.94 | 542 | 1955 ² | 70,096 | 102,767,776 | 6.59 | 569 |
| 1950 ² | 59,710 | 81,525,298 | 5.88 | 453 | 1956 ² | 80,746 | 106,772,153 | 6.64 | 601 |

¹ Excludes forests, and federal and other property losses.

² Includes Newfoundland.

The provincial property losses for 1953-56 given in Table 19 include both insured and uninsured losses. The percentages of the provincial totals uninsured in 1956 were: Prince Edward Island 43; Nova Scotia 25; New Brunswick 33; Quebec 15; Ontario 13; Manitoba 17; Saskatchewan 3; Alberta 40; British Columbia 43; and the Yukon and Northwest Territories 69. Uninsured losses formed 21 p.c. of the total losses for Canada.

19.—Fire Losses by Province 1953-56

| Province or Territory | 1953 | 1954 | 1955 | 1956 | | |
|--------------------------------------|----------------------------|-------------------|--------------------|----------------|----------------------------|-----------------|
| | Property Loss ¹ | | | Fires Reported | Property Loss ¹ | Loss per Capita |
| | \$ | \$ | \$ | No. | \$ | \$ |
| Newfoundland..... | | | 538,702 | 1,070 | 1,510,183 | 3.64 |
| Prince Edward Island..... | 231,616 | 452,644 | 878,124 | 377 | 444,180 | 4.47 |
| Nova Scotia..... | 2,957,326 | 2,892,511 | 2,495,579 | 1,944 | 4,024,029 | 5.79 |
| New Brunswick..... | 2,993,167 | 2,683,195 | 3,127,983 | 2,232 | 3,918,448 | 7.07 |
| Quebec..... | 31,676,545 | 28,926,095 | 38,060,125 | 36,901 | 36,900,300 | 7.97 |
| Ontario..... | 25,882,184 | 29,275,559 | 29,607,786 | 23,366 | 29,189,908 | 5.40 |
| Manitoba..... | 4,279,618 | 5,827,145 | 4,330,540 | 2,062 | 5,046,372 | 5.94 |
| Saskatchewan..... | 2,372,885 | 3,125,924 | 5,902,422 | 1,872 | 2,956,382 | 3.36 |
| Alberta..... | 5,652,339 | 7,657,085 | 6,810,883 | 2,883 | 6,840,901 | 6.09 |
| British Columbia..... | 8,080,490 | 10,177,702 | 10,889,620 | 7,838 | 15,308,745 | 10.95 |
| Yukon and Northwest Territories..... | 144,726 | 422,618 | 126,012 | 201 | 632,705 | 32.76 |
| Canada..... | 84,270,896 | 91,440,478 | 102,767,776 | 80,746 | 106,772,153 | 6.64 |

¹ Excludes forests, and federal and other property losses.

20.—Fire Losses by Type of Property 1954-56

| Type of Property | 1954 ¹ | | 1955 | | 1956 | |
|---------------------------------|-------------------|-------------------|----------------|--------------------|----------------|--------------------|
| | Fires Reported | Property Loss | Fires Reported | Property Loss | Fires Reported | Property Loss |
| | No. | \$ | No. | \$ | No. | \$ |
| Residential..... | 50,065 | 19,728,406 | 56,217 | 21,246,775 | 60,771 | 26,127,326 |
| Mercantile..... | 6,828 | 24,500,904 | 7,562 | 29,873,923 | 7,760 | 33,119,000 |
| Farm..... | 4,580 | 6,971,345 | 5,166 | 8,680,817 | 5,292 | 8,585,457 |
| Manufacturing..... | 1,171 | 11,863,899 | 1,773 | 23,942,323 | 1,292 | 13,604,843 |
| Institutional and assembly..... | 894 | 5,638,156 | 914 | 6,640,949 | 925 | 5,674,618 |
| Miscellaneous..... | 5,100 | 22,737,768 | 4,464 | 12,382,989 | 4,706 | 19,660,909 |
| Totals..... | 68,638 | 91,440,478 | 76,096 | 102,767,776 | 80,746 | 106,772,153 |

¹ Excludes Newfoundland.

21.—Value of Property Loss by Reported Cause of Fire 1954-56

| Reported Cause | 1954 ¹ | | 1955 | | 1956 | |
|---|-------------------|-------------------|----------------|--------------------|----------------|--------------------|
| | Fires Reported | Property Loss | Fires Reported | Property Loss | Fires Reported | Property Loss |
| | No. | \$ | No. | \$ | No. | \$ |
| Smokers' carelessness..... | 27,156 | 5,637,005 | 29,202 | 4,583,118 | 30,974 | 5,150,175 |
| Stoves, furnaces, boilers and smoke pipes..... | 6,385 | 5,672,214 | 7,408 | 6,541,011 | 5,401 | 5,452,350 |
| Electrical wiring and appliances..... | 6,074 | 10,388,088 | 6,563 | 10,825,587 | 6,955 | 12,897,828 |
| Matches..... | 2,514 | 834,381 | 2,236 | 1,147,372 | 2,295 | 1,543,228 |
| Defective and overheated chimneys and flues..... | 2,519 | 2,414,627 | 2,937 | 2,222,319 | 4,632 | 3,179,316 |
| Hot ashes, coals and open fires..... | 2,178 | 1,651,821 | 2,099 | 1,426,240 | 1,986 | 1,477,492 |
| Petroleum and its products..... | 2,047 | 3,063,351 | 1,985 | 3,403,713 | 1,805 | 5,332,913 |
| Lights, other than electric..... | 1,316 | 1,462,033 | 1,434 | 1,298,240 | 1,480 | 1,989,111 |
| Lightning..... | 2,045 | 1,750,257 | 2,076 | 1,513,405 | 2,186 | 2,765,426 |
| Sparks on roofs..... | 470 | 364,170 | 476 | 474,312 | 475 | 558,156 |
| Exposure fires..... | 495 | 1,102,622 | 555 | 1,557,258 | 600 | 1,640,376 |
| Spontaneous ignition..... | 298 | 1,142,136 | 327 | 2,434,512 | 339 | 1,128,670 |
| Incendiarism..... | 299 | 1,556,006 | 307 | 1,910,512 | 317 | 2,011,835 |
| Miscellaneous known causes (explosions, fireworks, friction, hot grease or metal, steam and hot water pipes, etc.)..... | 6,591 | 8,461,258 | 7,863 | 8,060,188 | 10,448 | 6,229,181 |
| Unknown..... | 8,251 | 45,940,509 | 10,628 | 55,369,989 | 10,853 | 55,416,096 |
| Totals..... | 68,638 | 91,440,478 | 76,096 | 102,767,776 | 80,746 | 106,772,153 |

¹ Excludes Newfoundland.

Subsection 3.—Casualty Insurance Business Transacted by Companies under Federal Registration

The various classes of casualty insurance are shown in Table 22. These figures relate only to companies registered by the Federal Government.

22.—Net Casualty Premiums Written, Premiums Earned and Claims Incurred in Canada, 1955 and 1956

NOTE.—Excluding marine insurance (see p. 1186). Less all reinsurance for Canadian companies and registered or licensed reinsurance only for British and foreign companies.

| Class of Business | Premiums Written | | | | Premiums Earned | Claims Incurred |
|-------------------------------------|--------------------|-------------------|-------------------|-------------|-----------------|-----------------|
| | Canadian Companies | British Companies | Foreign Companies | Total | All Companies | All Companies* |
| | \$ | \$ | \$ | \$ | \$ | \$ |
| 1955 | | | | | | |
| Accident— | | | | | | |
| Personal..... | 1,477,130 | 1,674,352 | 5,491,400 | 8,642,882 | 8,362,008 | 3,593,008 |
| Public liability..... | 5,686,809 | 5,710,111 | 4,879,445 | 16,276,365 | 14,820,753 | 7,629,426 |
| Employers liability..... | 1,619,927 | 1,952,021 | 985,237 | 4,557,185 | 4,347,562 | 1,700,166 |
| Combined accident and sickness..... | 40,808,580 | 1,091,357 | 54,312,461 | 96,212,398 | 94,766,855 | 70,726,065 |
| Aircraft..... | 53,668 | 1,179,018 | 691,483 | 1,924,169 | 1,824,954 | 2,647,631 |
| Automobile..... | 78,869,157 | 43,924,307 | 56,410,302 | 179,203,766 | 172,639,957 | 99,191,842 |
| Boiler— | | | | | | |
| (a) Boiler..... | 1,905,714 | 479,037 | 683,745 | 3,068,496 | 2,634,388 | 1,393,969 |
| (b) Machinery..... | 891,676 | 410,196 | 787,639 | 2,089,511 | 1,738,368 | 2,964,685 |

22.—Net Casualty Premiums Written, Premiums Earned and Claims Incurred in Canada, 1955 and 1956—concluded

| Class of Business | Premiums Written | | | | Premiums Earned | Claims Incurred |
|-------------------------------------|--------------------|-------------------|--------------------|--------------------|--------------------|--------------------|
| | Canadian Companies | British Companies | Foreign Companies | Total | All Companies | All Companies |
| | \$ | \$ | \$ | \$ | \$ | \$ |
| 1955—concluded | | | | | | |
| Credit..... | — | — | 503,852 | 503,852 | 470,035 | 176,200 |
| Earthquake..... | 6,690 | 18,712 | 20,794 | 46,196 | 35,260 | 2,044 |
| Explosion..... | 482 | 3,255 | 10,743 | 14,480 | 15,073 | 69 |
| Falling aircraft..... | — | — | 40 | 40 | 47 | — |
| Forgery..... | 33,648 | 7,043 | 20,040 | 60,731 | 72,465 | 16,746 |
| Guarantee— | | | | | | |
| Fidelity..... | 1,365,874 | 596,685 | 928,122 | 2,890,681 | 2,669,069 | 1,204,229 |
| Surety..... | 1,886,273 | 947,916 | 1,296,381 | 4,130,570 | 3,488,870 | 332,490 |
| Hail..... | 212,287 | 262,102 | 3,881,535 | 4,355,924 | 4,355,924 | 2,027,053 |
| Inland transportation..... | 824,546 | 1,417,668 | 2,812,010 | 5,054,224 | 4,874,826 | 2,456,303 |
| Livestock..... | 9,173 | 33,814 | 34,680 | 77,667 | 75,613 | 43,101 |
| Personal property..... | 4,512,882 | 8,445,407 | 12,219,079 | 25,177,368 | 21,662,065 | 10,912,095 |
| Plate glass..... | 708,137 | 605,622 | 519,016 | 1,832,775 | 1,768,793 | 929,542 |
| Real property..... | 51,909 | 474,475 | 477,590 | 1,003,974 | 701,353 | 403,131 |
| Sickness..... | 519,164 | 858,007 | 7,448,276 | 8,825,447 | 8,983,011 | 3,706,904 |
| Sprinkler leakage..... | 116 | 294 | 1,470 | 1,880 | 2,353 | 3,083 |
| Theft..... | 1,850,585 | 1,487,462 | 1,742,487 | 5,080,534 | 4,927,952 | 2,162,498 |
| Water damage..... | — | — | 21,137 | 21,137 | 17,189 | 2,365 |
| Weather..... | — | — | 22,244 | 22,244 | 22,244 | 10,973 |
| Windstorm..... | 145,489 | 6,038 | 53,350 | 204,877 | 244,019 | 109,293 |
| Totals, 1955..... | 143,439,916 | 71,584,899 | 156,254,558 | 371,279,373 | 355,521,006 | 214,344,911 |
| 1956 | | | | | | |
| Accident— | | | | | | |
| Personal..... | 1,570,779 | 1,938,966 | 6,295,888 | 9,805,633 | 9,404,606 | 4,160,412 |
| Public liability..... | 6,843,952 | 7,035,214 | 5,510,572 | 19,389,738 | 16,814,016 | 8,563,667 |
| Employers liability..... | 1,770,602 | 2,040,904 | 1,012,517 | 4,824,023 | 4,876,270 | 2,270,648 |
| Combined accident and sickness..... | 46,435,847 | 1,444,120 | 65,024,214 | 112,904,181 | 111,608,715 | 86,978,555 |
| Aircraft..... | 86,357 | 1,321,901 | 478,199 | 1,886,457 | 1,995,652 | 1,688,455 |
| Automobile..... | 83,866,754 | 47,211,540 | 62,248,958 | 193,327,252 | 185,935,156 | 126,066,493 |
| Boiler— | | | | | | |
| Boiler..... | 1,880,526 | 678,392 | 769,917 | 3,328,835 | 2,911,312 | 1,060,741 |
| Machinery..... | 766,569 | 412,242 | 723,768 | 1,902,579 | 1,948,880 | —216,962 |
| Credit..... | — | — | 540,563 | 540,563 | 531,035 | 44,861 |
| Earthquake..... | 6,398 | 21,068 | 10,129 | 37,595 | 39,993 | 76 |
| Explosion..... | 396 | 5,088 | 1,022 | 6,506 | 7,119 | 104 |
| Falling aircraft..... | — | — | 40 | 40 | 40 | — |
| Forgery..... | 49,087 | 9,366 | 17,701 | 76,154 | 67,629 | 8,792 |
| Guarantee— | | | | | | |
| Fidelity..... | 1,404,796 | 605,474 | 999,626 | 3,009,896 | 2,885,948 | 1,042,164 |
| Surety..... | 2,352,592 | 1,133,929 | 1,664,397 | 5,150,918 | 4,629,821 | 1,632,989 |
| Hail..... | 246,507 | 315,692 | 3,993,484 | 4,555,683 | 4,555,683 | 3,812,225 |
| Inland transportation..... | 996,282 | 1,666,755 | 3,156,843 | 5,819,880 | 5,363,510 | 2,927,033 |
| Livestock..... | 5,380 | 39,365 | 35,350 | 80,095 | 80,208 | 86,783 |
| Personal property..... | 5,641,776 | 10,934,658 | 14,410,021 | 30,986,455 | 26,507,341 | 18,574,298 |
| Plate glass..... | 700,799 | 562,610 | 489,924 | 1,753,333 | 1,832,159 | 1,146,319 |
| Real property..... | 92,009 | 1,103,434 | 690,842 | 1,886,285 | 1,210,382 | 1,000,681 |
| Sickness..... | 540,018 | 841,236 | 7,349,571 | 8,730,825 | 8,913,030 | 3,537,109 |
| Sprinkler leakage..... | 368 | 388 | 3,400 | 4,156 | 4,489 | 33 |
| Theft..... | 1,838,134 | 1,538,830 | 1,828,294 | 5,205,258 | 5,117,168 | 2,559,971 |
| Water damage..... | — | — | 9,334 | 9,334 | 15,552 | 14,921 |
| Weather..... | 20 | — | 14,227 | 14,247 | 14,237 | 10,105 |
| Windstorm..... | 167,683 | 14,919 | 39,191 | 221,793 | 226,152 | 160,575 |
| Totals, 1956..... | 157,263,631 | 80,876,091 | 177,317,992 | 415,457,714 | 397,496,103 | 267,131,048 |

A certificate of registration is not required for marine insurance and therefore operating results in Canada are not included in the above figures. They are as follows for the ten-year period 1947-56:—

| <i>Year</i> | <i>Premiums</i> | <i>Claims Incurred</i> | <i>Under-writing Gain</i> |
|-------------|-----------------|------------------------|---------------------------|
| | \$ | \$ | \$ |
| 1947..... | 7,932,404 | 4,529,161 | 1,031,313 |
| 1948..... | 7,936,658 | 3,468,045 | 2,466,397 |
| 1949..... | 7,715,671 | 4,327,555 | 1,342,088 |
| 1950..... | 7,592,558 | 3,098,086 | 2,394,336 |
| 1951..... | 8,908,639 | 4,670,972 | 1,716,201 |
| 1952..... | 9,201,477 | 5,627,211 | 1,130,828 |
| 1953..... | 9,429,278 | 5,413,073 | 1,192,684 |
| 1954..... | 9,287,806 | 4,952,694 | 1,525,376 |
| 1955..... | 10,061,418 | 6,068,437 | 782,632 |
| 1956..... | 10,828,472 | 7,640,860 | —362,076 |

Subsection 4.—Finances of Fire and Casualty Insurance Companies under Federal Registration

Tables 23 to 25 show the assets, liabilities, income and expenditure of registered companies transacting fire and casualty insurance in Canada from 1954 to 1956. Totals only are given because it is impossible for such companies to allocate their assets and liabilities and their general income and expenditure among the various types of business transacted.

23.—Assets of Canadian, British and Foreign Companies Transacting Fire and Casualty Insurance under Federal Registration 1954-56

| <i>Assets</i> | <i>1954</i> | <i>1955</i> | <i>1956</i> |
|---|--------------------|--------------------|--------------------|
| | \$ | \$ | \$ |
| Canadian Companies¹ (In All Countries) | | | |
| Real estate..... | 6,914,709 | 7,422,687 | 9,007,637 |
| Loans on real estate..... | 6,338,224 | 6,568,495 | 5,816,600 |
| Bonds, debentures and stocks..... | 257,319,278 | 279,549,310 | 297,017,474 |
| Agents' balances and premiums outstanding..... | 25,541,782 | 28,398,778 | 30,128,617 |
| Cash..... | 27,677,036 | 27,050,820 | 26,272,990 |
| Interest and rents..... | 2,025,393 | 2,267,675 | 2,466,014 |
| Other assets..... | 15,153,902 | 20,360,076 | 23,377,762 |
| Totals, Canadian Companies..... | 340,970,324 | 371,617,841 | 394,087,094 |
| British Companies (In Canada) | | | |
| Real estate..... | 2,170,271 | 2,657,692 | 1,264,411 |
| Loans on real estate..... | 606,046 | 847,124 | 859,776 |
| Bonds, debentures and stocks..... | 160,438,630 | 163,614,604 | 164,408,838 |
| Agents' balances and premiums outstanding..... | 18,266,938 | 19,848,581 | 22,107,838 |
| Cash..... | 16,494,685 | 14,515,929 | 11,420,337 |
| Interest and rents..... | 841,129 | 812,512 | 873,913 |
| Other assets in Canada..... | 4,082,131 | 3,845,147 | 6,550,982 |
| Totals, British Companies..... | 202,899,830 | 206,141,589 | 207,486,095 |
| Foreign Companies (In Canada) | | | |
| Real estate..... | 2,211,251 | 4,158,278 | 4,626,146 |
| Loans on real estate..... | 63,540 | 47,434 | 59,678 |
| Bonds, debentures and stocks..... | 215,407,577 | 233,810,248 | 240,259,386 |
| Agents' balances and premiums outstanding..... | 20,041,362 | 22,805,443 | 25,095,764 |
| Cash..... | 25,789,322 | 26,333,042 | 22,689,599 |
| Interest and rents..... | 1,663,526 | 1,783,223 | 1,995,143 |
| Other assets in Canada..... | 1,951,508 | 3,095,082 | 3,843,074 |
| Totals, Foreign Countries..... | 267,128,086 | 292,032,750 | 298,568,790 |

¹ Includes marine insurance.

24.—Liabilities of Canadian, British and Foreign Companies Transacting Fire and Casualty Insurance under Federal Registration 1954-56

| Liabilities | 1954 | 1955 | 1956 |
|---|--------------------|--------------------|--------------------|
| | \$ | \$ | \$ |
| Canadian Companies¹ (In All Countries) | | | |
| Reserve for unsettled claims..... | 59,602,482 | 67,881,148 | 76,880,794 |
| Reserve for unearned premiums ² | 95,971,400 | 104,649,191 | 112,185,882 |
| Sundry items..... | 58,565,853 | 61,852,301 | 68,466,364 |
| Totals, Canadian Companies..... | 214,139,735 | 234,382,640 | 257,533,040 |
| Excess of assets over liabilities..... | 126,830,589 | 137,235,201 | 136,554,054 |
| Capital stock paid up..... | 27,517,572 | 28,379,882 | 30,946,431 |
| British Companies (In Canada) | | | |
| Reserve for unsettled claims..... | 36,271,286 | 43,103,914 | 47,719,646 |
| Reserve for unearned premiums ² | 74,236,683 | 76,966,226 | 83,931,390 |
| Sundry items..... | 11,298,778 | 10,732,379 | 13,213,434 |
| Totals, British Companies..... | 121,806,747 | 130,802,519 | 144,864,470 |
| Excess of assets over liabilities..... | 81,093,083 | 75,339,070 | 62,621,625 |
| Foreign Companies (In Canada) | | | |
| Reserve for unsettled claims..... | 48,558,094 | 59,300,614 | 67,395,164 |
| Reserve for unearned premiums ² | 102,690,355 | 110,117,204 | 119,797,990 |
| Sundry items..... | 16,979,441 | 18,067,520 | 20,305,488 |
| Totals, Foreign Companies..... | 168,227,890 | 187,485,338 | 207,498,642 |
| Excess of assets over liabilities, excluding capital..... | 98,900,196 | 104,547,412 | 91,070,148 |

¹ Includes marine insurance.² Including all other policy reserves.

25.—Income and Expenditure of Canadian, British and Foreign Companies Transacting Fire and Casualty Insurance under Federal Registration 1954-56

| Income and Expenditure | 1954 | 1955 | 1956 |
|---|--------------------|--------------------|--------------------|
| | \$ | \$ | \$ |
| INCOME | | | |
| Canadian Companies¹ (In All Countries) | | | |
| Net premiums written..... | 197,795,818 | 215,628,633 | 231,948,646 |
| Interest, dividends and rents..... | 9,467,220 | 10,321,667 | 11,482,471 |
| Sundry items..... | 7,535,605 | 5,870,503 | —482,095 |
| Totals, Canadian Companies..... | 214,798,643 | 231,820,803 | 242,949,022 |
| British Companies (In Canada) | | | |
| Net premiums written..... | 122,764,546 | 124,085,176 | 137,959,156 |
| Interest, dividends and rents..... | 2,841,898 | 3,048,752 | 3,938,838 |
| Sundry items..... | 3,151 | 756 | 91 |
| Totals, British Companies..... | 125,609,595 | 127,134,684 | 141,898,085 |
| Foreign Companies (In Canada) | | | |
| Net premiums written..... | 193,649,129 | 209,316,215 | 233,808,586 |
| Interest, dividends and rents..... | 5,853,113 | 6,603,810 | 7,816,535 |
| Sundry items..... | 89,176 | 122,695 | 77,711 |
| Totals, Foreign Companies..... | 199,591,418 | 216,042,720 | 241,702,832 |

For footnotes, see end of table.

25.—Income and Expenditure of Canadian, British and Foreign Companies Transacting Fire and Casualty Insurance under Federal Registration 1954-56—concluded

| Income and Expenditure | 1954 | 1955 | 1956 |
|---|--------------------|--------------------|--------------------|
| EXPENDITURE | \$ | \$ | \$ |
| Canadian Companies¹ (In All Countries) | | | |
| Net claims incurred..... | 110,043,942 | 120,381,986 | 142,456,543 |
| Commission and brokerage..... | 33,727,087 | 36,409,970 | 38,361,161 |
| Taxes excluding profit taxes..... | 4,778,456 | 5,166,749 | 5,640,466 |
| Dividends to policyholders..... | 1,390,437 | 1,382,522 | 1,611,657 |
| Income taxes..... | 7,000,962 | 5,301,880 | 1,539,679 |
| Losses from other sources..... | 6,299,501 | 4,999,360 | 3,036,879 |
| Other expenses..... | 33,783,621 | 37,060,083 | 41,701,740 |
| Totals, Canadian Companies..... | 197,024,006 | 210,702,550 | 234,348,125 |
| Excess of income over expenditure..... | 17,774,637 | 21,118,253 | 8,600,897 |
| British Companies (In Canada) | | | |
| Net claims incurred..... | 61,503,150 | 67,852,656 | 81,330,253 |
| Commission and brokerage..... | 27,284,801 | 27,812,011 | 31,294,105 |
| Taxes excluding profit taxes..... | 3,042,018 | 3,129,970 | 3,423,321 |
| Income taxes..... | 2,103,838 | 556,772 | —10,814 |
| Other expenses..... | 21,554,873 | 23,460,437 | 26,178,892 |
| Totals, British Companies..... | 115,488,680 | 122,811,846 | 142,215,757 |
| Excess of income over expenditure..... | 10,120,915 | 4,322,838 | —317,672 |
| Foreign Companies (In Canada) | | | |
| Net claims incurred..... | 107,764,865 | 121,483,538 | 150,163,172 |
| Commission and brokerage..... | 34,639,756 | 37,201,746 | 41,707,872 |
| Taxes excluding profit taxes..... | 4,570,515 | 4,956,286 | 5,578,549 |
| Dividends to policyholders..... | 4,159,241 | 4,455,425 | 3,912,471 |
| Income taxes..... | 4,516,199 | 3,169,682 | 535,749 |
| Losses from other sources..... | ² | 115,659 | —23,100 |
| Other expenses..... | 31,977,143 | 35,296,624 | 40,801,873 |
| Totals, Foreign Companies..... | 187,627,719 | 206,678,960 | 242,676,586 |
| Excess of income over expenditure..... | 11,963,699 | 9,363,760 | —973,754 |

¹ Includes marine insurance.² Included with "Dividends to policyholders".

26.—Recapitulation of Finances of all Fire and Casualty Insurance Companies Operating in Canada under Federal Government Registration 1955 and 1956

| Companies | Assets | Liabilities | Excess of Assets over Liabilities | Income | Expenditure | Excess of Income over Expenditure |
|---------------------------------|--------------------|--------------------|---|--------------------|--------------------|---|
| 1955 | \$ | \$ | \$ | \$ | \$ | \$ |
| Canadian (in all countries).... | 371,617,841 | 234,382,640 | 137,235,201 | 231,820,803 | 210,702,550 | 21,118,253 |
| British (in Canada)..... | 206,141,589 | 130,802,519 | 75,339,070 | 127,134,684 | 122,811,846 | 4,322,838 |
| Foreign (in Canada)..... | 292,032,750 | 187,485,338 | 104,547,412 | 216,042,720 | 206,678,960 | 9,363,760 |
| Totals, 1955..... | 869,792,180 | 552,670,497 | 317,121,683 | 574,998,207 | 540,193,356 | 34,804,851 |
| 1956 | | | | | | |
| Canadian (in all countries) ... | 394,087,094 | 257,533,040 | 136,554,054 | 242,949,022 | 234,348,125 | 8,600,897 |
| British (in Canada)..... | 207,486,095 | 144,864,470 | 62,621,625 | 141,898,085 | 142,215,757 | —317,672 |
| Foreign (in Canada)..... | 298,568,790 | 207,498,642 | 91,070,148 | 241,702,832 | 242,676,586 | —973,754 |
| Totals, 1956..... | 900,141,979 | 609,896,152 | 290,245,827 | 626,549,939 | 619,240,468 | 7,309,471 |

Section 3.—Government Insurance

In addition to the insurance provided by private insurance companies, various types of government insurance schemes have been adopted in recent years by the federal and provincial governments.

Information on unemployment insurance, health insurance, veterans insurance, export credits insurance, etc., will be found in the appropriate Chapters on Labour, Health and Welfare, Foreign Trade, etc.

Provincial Insurance Schemes.*—Saskatchewan.—The Saskatchewan Government Insurance Office, a Crown corporation established by the Saskatchewan Government Insurance Act 1944, commenced business May 1, 1945; it deals in all lines of insurance other than sickness, life and hail.

It administers the Automobile Accident Insurance Act which provides compensation for the victims of automobile accidents as well as property damage in such accidents. The Act provides Saskatchewan residents with personal injury coverage without regard to liability and, in addition, all Saskatchewan motorists enjoy public liability and comprehensive protection including fire, theft and collision coverages.

The Office, in co-operation with the Saskatchewan Department of Natural Resources, administers a trust fund made up of a portion of hunting licence fees and insurance premiums, to compensate farmers for damage done to their crops by certain forms of wildlife, chiefly ducks, geese and deer.

Information regarding the operation of the Saskatchewan Government Insurance Office or the Automobile Accident Insurance Act may be obtained from the Promotion and Advertising Department of the Saskatchewan Government Insurance Office, 11th and Cornwall Streets, Regina, Sask.

Alberta.—Provincial Government insurance in Alberta, coming within the purview of the Alberta Insurance Act, relates firstly to the Alberta General Insurance Company, in which the entire business of the fire branch of the Alberta Government Insurance Office was vested by the Legislature on Mar. 31, 1948, and secondly to the Life Insurance Company of Alberta, which was constituted on the same date to take over the life branch of the Alberta Government Insurance Office. Each company is administered by a separate board of directors. The Lieutenant-Governor in Council appoints the members to the respective boards but the charter of the Life Insurance Company of Alberta provides for the election of two policyholder directors. While both companies are Crown corporations, they are not entitled to the usual immunities of the Crown, since they may sue and be sued in any court of competent jurisdiction.

A variety of agencies in Alberta offer forms of prepaid protection corresponding to insurance but the nature of the enabling legislation governing these plans emphasizes the fact that they do not constitute insurance. Because such exemptions are specifically provided by the insurance laws of the Province, reference to these plans is necessary only to make it clear that they do not come within the scope of the Alberta Insurance Act.

It should be noted that the Alberta Hail Insurance Act is administered by the Provincial Treasurer but none of the provisions of the Alberta Insurance Act apply to the Alberta Hail Insurance Board.

Information on insurance matters additional to that set out above may be obtained from the Superintendent of Insurance, Department of the Provincial Secretary, Edmonton, Alta.

* Revised by the respective provincial governments.

CHAPTER XXVIII.—DEFENCE OF CANADA

CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

PART I.—THE ARMED SERVICES AND DEFENCE RESEARCH*

Section 1.—The Department of National Defence

The Minister of National Defence exercises control over and management of the Canadian Armed Forces, the Defence Research Board and other matters relating to national defence. Under his direction the three Chiefs of Staff are responsible for the control and administration of their respective Services and the Chairman of the Defence Research Board is responsible for the Defence Scientific Service. The Chairman of the Chiefs of Staff Committee, appointed in 1951, is responsible to the Minister ensuring that all matters of joint defence and defence policy, in its widest sense, are carefully examined and co-ordinated before decisions are made.

The civilian administration of the Department is organized under the Deputy Minister and is constituted on a functional basis. The Deputy Minister maintains a continuing review and control over the financial aspects of operational policy, logistics, and personnel and administration. The Deputy Minister is assisted by an Associate Deputy Minister and four Assistant Deputy Ministers each of whom administers a division of the Deputy Minister's branch responsible for matters of: administration and personnel; construction, engineering and properties; finance; and supply. Also responsible to the Deputy Minister are: the Controller General of Inspection Services, the Judge Advocate General, the Chief Secretary and, where staff matters are concerned, the Director of Public Relations.

A number of committees meet at regular intervals to consider and advise on joint issues. These include:—

- (1) **Defence Council.**—Composed of the Minister of National Defence (Chairman), the Associate Minister of National Defence (Vice-chairman), the Parliamentary Assistant to the Minister, the Deputy Minister, the Chairman of the Chiefs of Staff Committee, the three Chiefs of Staff, the Chairman of the Defence Research Board and the Associate Deputy Minister; its purpose is to advise the Minister on administrative and other matters.

* Prepared by the Office of the Deputy Minister, Department of National Defence, Ottawa.

- (2) **Chiefs of Staff Committee.**—Composed of the Chairman of the Chiefs of Staff, the three Chiefs of Staff and the Chairman of the Defence Research Board. The Deputy Minister of National Defence attends regularly and the Secretary to the Cabinet and the Under Secretary of State for External Affairs attend when required. The purpose of the Committee is to maintain a continuous review of all operational problems; sub-committees consider various aspects of these problems and report to the parent committee.
- (3) **Personnel Members Committee.**—Composed of the Chief of Naval Personnel, the Adjutant-General, the Air Member for Personnel, the Assistant Deputy Minister (Administration and Personnel), the Assistant Deputy Minister (Finance) and a representative of the Chairman of the Defence Research Board. The purpose of the Committee is to examine personnel problems of the three Services with the general aim of achieving uniform personnel policies; sub-committees consider various aspects of personnel problems and report to the parent committee.
- (4) **Principal Supply Officers Committee.**—Composed of the Chief of Naval Technical Services, the Quartermaster-General, the Air Member for Technical Services, the Assistant Deputy Minister (Requirements) and a representative of the Chairman of the Defence Research Board. The purpose of the Committee is to consider logistical problems; sub-committees consider various aspects of these problems and report to the parent committee.

Defence Supply Committee.—An inter-departmental committee composed of the Deputy Ministers of National Defence and of Defence Production and the senior military and civilian supply officers of the two departments has been established to review inter-departmental procurement and production problems and consider various policy aspects of the procurement of ammunition, armament, aircraft, etc. Eleven panels consider various aspects of these problems and report to the parent committee.

Liaison Abroad.—The Chairman of the Chiefs of Staff, who is the Canadian military representative in the North Atlantic Treaty Organization, is responsible for co-ordinating all NATO military matters and acts as a military adviser to Canadian NATO delegations. For purposes of liaison and the furtherance of international co-operation in defence, Canada also maintains: (1) Canadian Joint Staff (Washington) representing the three Services and the Defence Research Board; (2) Canadian Joint Staff (London) representing the three Services and the Defence Research Board; (3) Canadian Military Mission, Far East; and (4) Service Attachés in various countries throughout the world. In addition, a number of defence matters of concern to both Canada and the United States are considered by the Permanent Joint Board on Defence which is composed of representatives from the two countries.

Mutual Aid.—Canada's contributions to NATO are outlined on p. 113.

Rates of Pay and Allowances.—The entire pay structure for comparable ranks in the different Services is on a uniform basis. Monthly rates for pay and allowances are given in Table 1.

1.—Monthly Rates of Pay and Allowances for the Canadian Armed Forces, Effective May 1, 1957

| Royal Canadian Navy | Canadian Army | Royal Canadian Air Force | Basic Pay | Pro- gressive Pay | | | | | | | Group Pay for Tradesmen and Specialists | | | | Subsistence Allowance | | Ration Allow- ance | Mar- riage Allow- ance | Separated Family's Allowance (with Children) | |
|-------------------------------------|-------------------------------------|-----------------------------------|-----------|-------------------------|----|----|----|----|----|----|---|---|---|---|---|--|--------------------------|---------------------------------|--|--|
| | | | | Years in Rank | | | | | | | Group | | | | Personnel not in Receipt of Marriage Allowance | Personnel in Receipt of Sub- sistence Allowance | | | Personnel in Receipt of Sub- sistence Allowance | Personnel not in Receipt of Sub- sistence Allowance |
| | | | | 3 | 6 | 9 | 1 | 2 | 3 | 4 | | | | | | | | | | |
| Ordinary Seaman (under 17 years) | Private recruit (under 17 years) | Aircraftman 2 (under 17 years) | \$ 52 | — | — | — | — | — | — | — | — | — | — | — | 61 | — | \$ 30 | \$ — | \$ — | |
| Ordinary Seaman (entry) | Private (recruit) | Aircraftman 2 | 104 | — | — | — | 12 | 30 | 54 | 72 | — | — | — | — | 61 | 91 | 30 | 30 | 61 | 91 |
| Ordinary Seaman (trained) | Private (trained) | Aircraftman 1 | 110 | — | — | — | 12 | 30 | 54 | 72 | — | — | — | — | 61 | 91 | 30 | 30 | 61 | 91 |
| Able Seaman | Private (higher rate) | Leading Aircraftman | 127 | 20 | 12 | — | 12 | 30 | 54 | 72 | — | — | — | — | 61 | 91 | 30 | 30 | 61 | 91 |
| Leading Seaman | Corporal | Corporal | 170 | 3 | 3 | 3 | 12 | 30 | 54 | 72 | — | — | — | — | 61 | 91 | 30 | 30 | 61 | 91 |
| Petty Officer 2 | Sergeant | Sergeant | 194 | 5 | 5 | 5 | 12 | 30 | 54 | 72 | — | — | — | — | 72 | 91 | 30 | 30 | 72 | 91 |
| Petty Officer 1 | Staff Sergeant | Flight Sergeant | 217 | 5 | 5 | 5 | 12 | 30 | 54 | 72 | — | — | — | — | 81 | 91 | 30 | 30 | 81 | 91 |
| Chief Petty Officer 2 | Warrant Officer 2 | Warrant Officer 2 | 251 | 5 | 5 | 5 | 12 | 30 | 54 | 72 | — | — | — | — | 81 | 91 | 30 | 30 | 81 | 91 |
| Chief Petty Officer 1 | Warrant Officer 1 | Warrant Officer 1 | 280 | 5 | 5 | 5 | 12 | 30 | 54 | 72 | — | — | — | — | 92 | 102 | 30 | 30 | 92 | 102 |
| Midshipman | — | — | 145 | — | — | — | — | — | — | — | — | — | — | — | 61 | 91 | 30 | 40 | 61 | 91 |
| Acting Sub-Lieutenant | Second Lieutenant | Pilot Officer | 210 | — | — | — | — | — | — | — | — | — | — | — | 65 | 91 | 30 | 40 | 65 | 91 |
| Sub-Lieutenant | Lieutenant | Flying Officer | 285 | 35 | 15 | — | — | — | — | — | — | — | — | — | 89 | 110 | 30 | 40 | 89 | 110 |
| Commissioned Officer | Officer commissioned from ranks | Officer commissioned from ranks | 353 | 20 | 20 | 20 | — | — | — | — | — | — | — | — | 94 | 110 | 30 | 40 | 94 | 110 |
| Lieutenant | Captain | Flight Lieutenant | 355 | 30 | 30 | 30 | — | — | — | — | — | — | — | — | 94 | 110 | 30 | 40 | 94 | 110 |
| Lieutenant-Commander | Major | Squadron Leader | 455 | 30 | 30 | 30 | — | — | — | — | — | — | — | — | 113 | 113 | 30 | 40 | 113 | 113 |
| Commander | Lieutenant-Colonel | Wing Commander | 555 | 35 | 35 | 35 | — | — | — | — | — | — | — | — | 126 | 126 | 30 | 40 | 126 | 126 |
| Captain | Colonel | Group Captain | 730 | 35 | 35 | — | — | — | — | — | — | — | — | — | 139 | 139 | 30 | 40 | 139 | 139 |
| Commodore | Brigadier | Air Commodore | 977 | — | — | — | — | — | — | — | — | — | — | — | 153 | 153 | 30 | 40 | 153 | 153 |
| Rear-Admiral | Major-General | Air Vice-Marshal | 1,161 | — | — | — | — | — | — | — | — | — | — | — | 165 | 165 | 30 | 40 | 165 | 165 |

Subsection 1.—The Royal Canadian Navy

Role and Organization.—The primary role of the Royal Canadian Navy is anti-submarine warfare in all its aspects. Because of the prospect of long-range submarines capable of launching nuclear missiles hundreds of miles off-shore against coastal and inland targets, the RCN and the RCAF have placed primary emphasis on the development of forward operational systems and new techniques for locating and dealing with hostile submarines far out at sea.

The Royal Canadian Navy comes under the central authority of the Chief of the Naval Staff at Naval Headquarters in Ottawa. The Flag Officer, Atlantic Coast, at Halifax, N.S., and the Flag Officer, Pacific Coast, at Esquimalt, B.C., exercise operational and administrative command of ships and establishments within the Atlantic and Pacific Coast Commands. The Naval Comptroller organization was established in 1956 to assist in the effective control of the use of manpower, material and financial resources of the Navy. The recruiting and training of officers and men of the Royal Canadian Navy (Reserve) is conducted mainly through 22 Naval Divisions across Canada under the overall command of the Flag Officer, Naval Divisions, with Headquarters at Hamilton, Ont. There are naval missions in London, England, and Washington, U.S.A., to maintain liaison with the Royal Navy and the United States Navy. As a result of Canada's NATO commitments, officers of the Royal Canadian Navy serve on the Staffs of: the Supreme Allied Commander, Atlantic, at Norfolk, Va., in the United States; the Commander-in-Chief, Eastern Atlantic Area, at Northwood in the United Kingdom; and the Commander-in-Chief, Western Atlantic Area, at Norfolk, Va. The Flag Officer, Atlantic Coast, holds the appointment of Commander, Canadian Atlantic Sub-Area.

The strength of the RCN on July 31, 1957, was 19,228 officers and men in the Regular Force and 5,156 in the Reserve Force.

Operations at Sea 1956.—The first of the RCN's new anti-submarine escort vessels, HMCS *St. Laurent*, commissioned late in 1955, participated in the Royal Escort of Her Majesty the Queen on the occasion of her state visit to Sweden in June 1956. This was the first occasion on which a ship designed and built in Canada had been so honoured. Earlier in the year important evaluation trials were carried out on the *St. Laurent*, not only by the RCN but also in co-operation with the Royal Navy and the United States Navy. These tests proved conclusively that the anti-submarine requirements of this class of vessel had been met and in certain instances expectations were exceeded. Three additional warships of the *St. Laurent* class—HMC Ships *Assiniboine*, *Ottawa* and *Saguenay*—joined the fleet during the year.

The Arctic patrol ship, HMCS *Labrador*, carried scientific parties into the icebound Gulf of St. Lawrence in February for the purpose of gathering marine data and conducting Gulf Stream surveys. During the summer months the *Labrador* surveyed hitherto uncharted waters in the Arctic and provided navigational aids for United States and Canadian ships carrying equipment and stores for supply of the Distant Early Warning radar system.

Goodwill missions were combined with normal training in the visit of RCN ships to more than 60 foreign ports in cruises ranging from the Arctic to South America and from Europe to Japan. During March, 16 warships from the Atlantic and Pacific Commands held combined exercises in the Caribbean area. Sailing from the Great Lakes Training Centre at Hamilton, Ont., ten ships provided sea training for more than 1,000 officers and men of the naval reserve. Canada provided an aircraft carrier, five destroyers and three submarines for the important NATO exercises "New Broom V" and "New Broom VI" in the spring and late summer. The RCN's new Bay class minesweepers participated in exercises with both NATO forces and the USN.

By the latter part of 1956 the RCN's light fleet carrier *Bonaventure* had successfully completed contractor's trials in anticipation of commissioning on Jan. 17, 1957. The *Bonaventure*, the first Canadian-owned aircraft carrier, incorporates an angled deck of the

latest design, mirror landing aids and steam catapults to enable her to handle modern high-speed aircraft. Naval fixed-wing aircraft and helicopters flew approximately 40,000 hours during 1956. The year was marked by the progressive replacement of *Sea Fury* fighters by *Banshee* all-weather jets and *Avengers* by Canadian-built anti-submarine *Trackers*. International interest was shown in experimental flights of helicopters from a landing platform on the frigate HMCS *Buckingham*. These experimental flights were sufficiently successful to warrant continuation. Late in 1956 naval helicopters, co-operating with the RCAF in transport duties during the construction of the Mid-Canada radar line, delivered 2,052 tons of air cargo and 1,176 persons in the Knob Lake area of Quebec.

During the Suez crisis in the late autumn of 1957, Canada's decision to participate in the United Nations Emergency Force, Middle East, resulted in the immediate recall from Scotland of the light fleet carrier *Magnificent* to Halifax, where she was stripped of armament and transformed into a troop and equipment transport. The prompt manner in which the *Magnificent* was made ready provided commendable evidence of top-level co-ordination between the Services and between naval planners and the dockyard staff at Halifax. The *Magnificent* sailed for the Middle East on Dec. 29 carrying troops, vehicles, aircraft and supplies for the United Nations Emergency Force.

During the Springhill, N.S., mine disaster in November naval helicopters flew more than 50 missions in three days, carrying injured miners, doctors, medical supplies, blood plasma, oxygen and other stores.

Training.—The major shore training establishments are HMCS *Stadacona* at Halifax, N.S.; HMCS *Naden* at Esquimalt, B.C.; HMCS *Cornwallis* near Digby, N.S.; and HMCS *Shearwater* near Dartmouth, N.S. Facilities at *Stadacona* and *Naden* include schools for general and specialized training, drafting depots, hospitals and accommodation facilities necessary for the maintenance of the ships based on each Coast. New-entry or re-entry training, 20 weeks in duration, is conducted at the basic training establishment HMCS *Cornwallis* and, during 1956, 2,349 men were enrolled. The new-entry training establishment HMCS *D'Iberville* at Quebec City gives all French-speaking personnel a basic knowledge of English and preliminary training in seamanship and professional naval subjects. After completing the course at *D'Iberville*, French-speaking new entries join classes at *Cornwallis*.

Trade and specialist training is conducted in various schools and training centres, including the naval supply school at HMCS *Hochelaga* at Montreal, which was re-commissioned Oct. 1, 1955. During 1956 a total of 2,592 men received such training. Certain specialized training in new equipment is undertaken at the manufacturing centres by men who later become instructors.

A three-year course for technical apprentices is given in the specially equipped training ship HMCS *Cape Breton*. Forty-four apprentices who commenced training in August 1952 were the first graduates of the course. They were assigned to duty in April 1956. The school of music in *Naden* conducts a two-year course for apprentice bandsmen; the first graduates of this course concluded training in February 1957.

Under the Regular Officer Training Plan, 27 graduate cadets were assigned to duty with the Navy during the year and another seven went on to the final year at university in special courses. There were 212 naval cadets in training under the Plan at the end of 1956, including six naval reservists. In addition, 16 cadets formerly from the lower deck received similar training.

Under the *Venture* Plan, which was introduced in 1954 to train young men for seven-year short-service appointments and which offers the opportunity of permanent commissions, 93 cadets graduated in August 1956 and were promoted to midshipmen. The midshipmen graduates underwent further training afloat or in shore establishments, 32 of them as naval aircrew by arrangements with the United States Navy. At the end of 1956, there were 127 cadets in training at *Venture* and 138 midshipmen in training ashore or afloat.

New Construction and Modernization.—At the end of 1956, 16 fighting ships and 14 auxiliary craft were under construction; the aircraft carrier *Bonaventure* had been completed during the year and was commissioned at Belfast, Northern Ireland, on Jan. 17, 1957. Of the 14-ship destroyer-escort program, four were in service at the end of 1956 and four more were scheduled to be commissioned during 1957.

One coastal minesweeper was completed in 1956 and five others were under construction for commission in 1957. These vessels will replace six ships of their class transferred to the French navy under Mutual Aid in 1954. Three inner patrol craft, two stores-ammunition lighters and one ocean-going tug were also completed in 1956. Five escort frigates were being modernized, four of them to be completed in 1957, and a coastal escort was being converted as an oceanographic survey vessel for purposes of research.

In naval aviation, a contract was placed in February 1954 for the production of 100 *CS2F-1 Tracker* twin-engined anti-submarine aircraft, for delivery at the rate of two per month. These aircraft, of which the first five were delivered in 1956, are replacing the single-engined anti-submarine *Avengers*. The *CS2F-1* represents a considerable advance in this aspect of naval aviation. A parallel contract for Wright engines for these aircraft was also placed; 57 were completed by Dec. 13, 1956.

Twenty-six out of 38 *F2H3 Banshee* twin-jet fighters, supplied by arrangement with the United States Navy, had been received by the end of 1956.

Royal Canadian Navy (Reserve).—Naval Divisions are established in the following centres:—

St. John's, Nfld., HMCS *Cabot*
 Corner Brook, Nfld., HMCS *Caribou*
 Charlottetown, P.E.I., HMCS *Queen Charlotte*
 Halifax, N.S., HMCS *Scotian*
 Saint John, N.B., HMCS *Brunswick*
 Quebec, Que., HMCS *Montcalm*
 Montreal, Que., HMCS *Donnacona*
 Toronto, Ont., HMCS *York*
 Ottawa, Ont., HMCS *Carleton*
 Kingston, Ont., HMCS *Cataragui*
 Hamilton, Ont., HMCS *Star*

Windsor, Ont., HMCS *Hunter*
 London, Ont., HMCS *Preost*
 Port Arthur, Ont., HMCS *Griffin*
 Winnipeg, Man., HMCS *Chippawa*
 Regina, Sask., HMCS *Queen*
 Saskatoon, Sask., HMCS *Unicorn*
 Calgary, Alta., HMCS *Tecumseh*
 Edmonton, Alta., HMCS *Nonsuch*
 Vancouver, B.C., HMCS *Discovery*
 Victoria, B.C., HMCS *Malahat*
 Prince Rupert, B.C., HMCS *Chatham*

Royal Canadian Navy (Reserve) Naval Divisions, commanded by reserve officers, are responsible for specialized training in one or other of the various phases of naval activity, such as Gunnery, Torpedo and Anti-Submarine and Seaward Defence, in addition to training in engineering, supply, electronics, etc. Assistance in instruction is provided by RCN officers and men. During 1956, the Great Lakes Training Centre at Hamilton undertook new-entry reserve training afloat in three coastal escort ships. A continuous aviation training program was implemented during the year in the five RCN(R) Squadrons: VC 920 (HMCS *York*, Toronto); VC 921 (HMCS *Cataragui*, Kingston); VC 922 (HMCS *Malahat*, Victoria); VC 923 (HMCS *Montcalm*, Quebec); and VC 924 (HMCS *Tecumseh*, Calgary).

University Naval Training Divisions.—The University Naval Training Division program is designed to give instruction to students attending universities across Canada with the object of providing well-trained junior officers for the RCN and the RCN(R). The total training period is three years and cadets are required to complete three winter training periods, two summer periods and certain specified courses, after which suitable candidates receive promotion to Acting Sub-Lieutenant or Sub-Lieutenant, depending on academic status. During the year, UNTD cadets were in attendance at 31 universities and colleges across Canada.

The Royal Canadian Sea Cadets.—Royal Canadian Sea Cadets sponsored by the Navy League of Canada and supervised by the Royal Canadian Navy comprised 148 authorized corps in 1956. These were divided into seven Sea Cadet areas, supervised

by 16 naval officers, responsible to the Flag Officer, Naval Divisions. Instruction is carried out by RCSC officers. During the summer of 1956, two RCSC training establishments, one on each Coast, were activated, accommodating a total of 94 officers and 2,690 sea cadets. Thirteen seven-week courses, for 460 cadets were held in naval establishments and sea training was provided for 91 cadets in cruises ranging from two to 13 weeks. The strength of the corps on Dec. 1, 1956, was 1,021 Sea Cadet officers and 9,691 Sea Cadets.

Subsection 2.—The Canadian Army

Organization.—Army Headquarters at Ottawa, organized as the General Staff Branch, the Adjutant-General Branch and the Quartermaster-General Branch, conducts the planning and policy for the administration and training of the regular and reserve forces of the Canadian Army. Public relations, cadet services, military intelligence, chaplain services, provost and associated activities are directed through Commands by Army Headquarters. The five Commands and eight Areas are located as follows:—

| <i>Commands</i> | <i>Headquarters</i> | <i>Areas and Headquarters</i> |
|----------------------|---------------------|---|
| Eastern Command..... | Halifax, N.S..... | (1) New Brunswick Area, Fredericton, N.B. (2) Newfoundland Area, St. John's, Nfld. |
| Quebec Command..... | Montreal, Que..... | (3) Eastern Quebec Area, Quebec, Que. |
| Central Command..... | Oakville, Ont..... | (4) Eastern Ontario Area, Kingston, Ont. (5) Central Ontario Area, Oakville, Ont. (6) Western Ontario Area, London, Ont. |
| Prairie Command..... | Winnipeg, Man..... | (7) Saskatchewan Area, Regina, Sask. |
| Western Command..... | Edmonton, Alta..... | (8) British Columbia Area, Vancouver, B.C. |

The two main components of the Canadian Army are the Canadian Army (Regular) and the Reserves. The components of the Reserves are the Canadian Army (Militia), the Supplementary Reserve, the Canadian Officers' Training Corps (COTC), the Cadet Services of Canada and the Reserve Militia. Additional to but not an integral part of the Canadian Army are the Services Colleges (*see* pp. 1203-1205), officially authorized cadet corps, rifle associations and clubs.

The strength of the Canadian Army on July 31, 1957, was 46,440 officers and men in the Regular Force and 42,632 in the Reserve Force.

In 1953 the 1st Canadian Infantry Division was formed and, with the exception of a few units not required under present conditions, the Division has been activated. Divisional Headquarters and two-thirds of the Division are stationed and trained in Canada. The remaining third, one brigade group, is based in Germany.

Operations in 1956.—During early 1956 Canada and the other Commonwealth countries providing troops for service with the United Nations Command in Korea decided to reduce their contribution from a brigade group to a battalion group entitled the Commonwealth Contingent, Korea. The Canadian element of the Contingent was a detachment of approximately 30 officers and men of the Royal Canadian Army Medical Corps and the Royal Canadian Dental Corps.

As a result of Canadian membership in the International Supervisory Commissions for Vietnam, Laos and Cambodia, the Canadian Army continued to provide 125 officers and men for truce supervisory duties in Indo-China. In the late summer, after a one-year tour of duty, a man-for-man replacement program was carried out.

In connection with Canada's military obligations under NATO, the 2nd Canadian Infantry Brigade Group was still stationed in Germany in the area of Soest, Werl, Hemer and Iserlohn. It was to be relieved by the 4th Canadian Infantry Brigade Group in the autumn of 1957. Canadian troops continued to participate in training exercises with other NATO forces.

At the request of the United Nations, a force of approximately 800 officers and men of the Canadian Army was provided for service with the United Nations Emergency Force in the Middle East. The force consisted of supporting arms and services whose function was to provide communications, repair, maintenance and other administrative services for the United Nations Emergency Force. Part of the Canadian Army Force was sent to the Middle East by air in late November 1956, and the remainder, together with the equipment for the force, sailed aboard HMCS *Magnificent* on Dec. 29, 1956.

A parachute element of infantry, supporting units and an RCAF component continued training preparations to deal effectively with possible small invasions by an aggressor anywhere in Northern Canada.

Equipment.—The Canadian Army Equipment Development Program continues to concentrate on those fields particularly suited to Canadian capabilities and in which there are special Canadian needs. Particular attention has been given to the problem of living and operating in the North under the most severe and adverse conditions. The development and evaluation of defence equipment for atomic, biological and chemical warfare continued in close co-operation with the RCN, RCAF and Defence Research Board. The standardization program in the United States, United Kingdom and Canada and within NATO continues to promote the exchange of knowledge to the mutual advantage of the Armies concerned. Additional agreements were reached affecting procedures and equipment. The equipping of the Canadian Army with the new self-loading FN rifle, which fires the standard NATO 7.62 mm calibre round, began during 1957.

Training.—The policy of training is determined at Army Headquarters. General Officers Commanding Commands implement the training policy within their Commands, except for that conducted at Army and corps schools, which are under the direct supervision of Army Headquarters. The basic training of 6,540 recruits and the corps training of officers and men of the Canadian Army (Regular) was carried out at regimental depots, units, and corps schools. During 1956, 7,940 personnel attended courses at the schools of instruction. Promotion qualification examinations consisting of written and practical tests were held to qualify Regular and Militia officers for the ranks of Captain and Major; 61 candidates passed qualification examinations for selection to attend the Canadian Army Staff College, and 12 passed the entrance examination for the Royal Military College of Science. A training program was conducted during the winter months for all Regular officers to assist them in their professional knowledge. Militia Staff Course examinations were conducted for Militia officers to qualify Captains and Majors for Command and Staff appointments. Qualifying courses for Junior NCO's were conducted under General Officers Commanding Commands. Senior NCO courses were conducted at corps schools in accordance with training standards.

French and English-language training which is available to all ranks of the Canadian Army was conducted by Commands and AHQ. The Canadian Army Training School conducted six-month French-language courses for English-speaking officers and NCO instructors. A number of French-speaking potential NCO's have also received English-language training.

Officers from the United States, the United Kingdom, Australia, Pakistan, India, Norway, France and Italy attended courses at Canadian Army schools of instruction.

Trade and specialty training is given at corps schools and units. Where feasible the facilities of civilian schools are used to supplement training at Army establishments. Training is conducted in accordance with the appropriate training standard for each trade

or specialty. When required by technical developments in the Army, trades are revised and new trades are introduced. Trades relating to aircraft maintenance and repair are being studied in keeping with the decision that the Army will use certain aircraft.

The apprentice training program, inaugurated in January 1953, is designed to train selected young men as soldier tradesmen and to provide them with the requisite academic background to enable them to advance to senior non-commissioned ranks in the Army. A high entry standard has been set to ensure that the prospective soldier apprentice will be capable of absorbing trade and academic training, and also of developing the leadership qualities essential in senior NCO's. During 1956 an additional 486 apprentices were enrolled and 39 civilian teachers were employed to provide academic instruction for about 700 apprentice soldiers. Academic credits are obtained from the educational authorities of the province where the training is conducted. Apprentices receive trades training as clerks, cooks, carpenters, electricians, wireless operators, radar operators, radio mechanics, storemen, gun mechanics, vehicle mechanics and armourers. A balanced training program is designed to stimulate the interest of the apprentice. Military, trade, academic and recreational training are integrated. Separate messing, canteen and sleeping arrangements are provided for apprentices.

The training of the Mobile Striking Force continued throughout 1956. Airborne continuation training was carried out by each unit in conjunction with unit exercises. Mobile Striking Force units carried out exercises during the winter under cold weather conditions. Parachute and air supply courses were conducted at the Canadian Joint Training Centre at Rivers, Man., and courses in Arctic training at Fort Churchill, Man.

Collective training for units in Eastern Canada was conducted at Camp Gagetown, N.B., under the General Officer Commanding 1st Canadian Infantry Division, during the summer months and for units from Western Canada at Camp Wainwright, Alta., under the General Officer Commanding Western Command. All arms training was begun on the sub-unit and unit level, and culminated in exercises on the brigade and divisional level.

The Reserves.—Funds were provided to permit a maximum of 60 days training for the Militia during 1957, of which up to 15 days were to be camp training as determined by General Officers Commanding Commands. In the summer of 1956 a total of 21,000 all ranks attended summer camp training. The aim of training is to prepare the Militia for its role to assist in any future mobilization for active service or civil defence.

The Regular Officer Training Plan (ROTP).—The Regular Officer Training Plan is in effect at the three Canadian Services Colleges and at all Canadian universities and affiliated colleges which have contingents of the COTC. The purpose of the Plan is to train selected students for commissions in the Canadian Army (Regular). Students enrol in the Canadian Army (Regular) with a special rate of pay; tuition and the essential fees are paid and grants are given for books and instruments needed for study. In the period Jan. 1, 1954 to Dec. 31, 1956, 86 of these sponsored students graduated and were commissioned in the Canadian Army (Regular). Training consists of military studies, drill and physical training during the academic year; the summer term is devoted to practical training at military establishments.

The Canadian Officers' Training Corps (COTC).—In addition to the Regular Officer Training Plan, units of the Canadian Officers' Training Corps are maintained at Canadian universities to produce primarily, from among university undergraduates, officers for the reserve components of the Army. University graduates who have been members of the Canadian Officers' Training Corps are also eligible for commissions in the Canadian Army (Regular). Members of the COTC undertake the same training as members of the ROTP. In the period Jan. 1, 1954 to Dec. 31, 1956, 24 officers who had trained with the COTC were awarded commissions in the Canadian Army (Regular.)

Army Cadets.—The number of Royal Canadian Army Cadets training during 1955-56 was 61,480, enrolled in 560 cadet corps. Training was conducted by 1,382 Cadet Services of Canada officers and 968 civilian instructors assisted by Canadian Army Regular and

Militia personnel. During the summer of 1956, 5,968 cadets spent seven weeks at cadet summer camps located at Aldershot, N.S., Farnham, Que., Camp Borden, Ont., Ipperwash, Ont., Dundurn, Sask., and Vernon, B.C. During these summer camps cadets were qualified as either cadet leaders, cadet leader instructors, drivers mechanical transport or infantry signallers. In addition, 604 cadets of the minimum age of 14 years attended two-week summer camp at Aldershot, N.S., Picton, Ont., or Vernon, B.C. During these camps, cadets were qualified as Junior Leaders. The National Cadet Camp, operated annually at Banff, Alta., is an award camp for first class or master cadets who are selected from across Canada; in 1956, 229 such cadets attended. A total of 963 Cadet Services of Canada officers and civilian instructors attended cadet summer camps throughout Canada in 1956; of this number, 496 were undergoing training courses and 467 were employed on instructional duties.

Subsection 3.—The Royal Canadian Air Force

Organization.—Air Force Headquarters at Ottawa conducts the planning and policy for administration and training of the Regular and Reserve Forces of the RCAF. Organization is divided into four categories—resource controls, personnel, logistics, and plans and operations. The major formations and their headquarters locations are as follows:—

| <i>Formation</i> | <i>Headquarters</i> |
|-----------------------------|---------------------|
| Air Defence Command..... | St. Hubert, Que. |
| 5 Air Division..... | Vancouver, B.C. |
| 1 Air Division..... | Metz, France |
| Air Transport Command..... | Lachine, Que. |
| Air Material Command..... | Rockcliffe, Ont. |
| Maritime Air Command..... | Halifax, N.S. |
| Training Command..... | Trenton, Ont. |
| 1 Tactical Air Command..... | Edmonton, Alta. |
| 14 Training Group..... | Winnipeg, Man. |

The organization of the planned total of 40 squadrons was completed by December 1956 when 3,140 aircraft were in operation. Eighteen of the squadrons were for the air defence of Canada; 12 squadrons were stationed in France and Germany as No. 1 Air Division; six squadrons were required for RCAF transport operations at home and abroad; three maritime squadrons operated in conjunction with other forces for the defence of Canada's East and West Coasts; a photographic squadron of Transport Command, No. 408, flew about 598,000 miles during 1956 carrying out aerial survey operations, including special aerial survey work in conjunction with the Mid-Canada Early Warning radar system.

The strength of the Royal Canadian Air Force on July 31, 1957, was 50,931 officers and men in the Regular Force and 4,823 in the Auxiliary Air Force.

Operations in 1956-57.—During 1956, Air Defence Command continued its planned build-up. The Mid-Canada Early Warning system was well on the way toward completion. DEW line sitings were also completed and construction on the selected sites started. The RCAF Ground Observer Corps, which acts as a supplement to the radar system, included approximately 55,000 civilian volunteer members.

The *CF-100 IV* has been replaced in Canada by the *CF-100 V*, a version of the same aircraft with improved high-altitude performance. Improvements continued in air defence operational procedures. By the end of 1956 one of the *F-86* squadrons which was disbanded in No. 1 Air Division was re-formed in Canada using *CF-100* aircraft. Three additional squadrons were also re-formed in 1957.

No. 1 Air Division in Europe continued to fill Canada's commitment to NATO's integrated fighter force. The Air Division comprises eight *F-86* and four *CF-100* squadrons. Maritime Air Command aircrews participated in several NATO exercises in the Western Atlantic area in conjunction with United States and United Kingdom forces. National

anti-submarine exercises were also conducted with the RCN on both the East and West Coasts. The two RCAF East Coast squadrons were fully equipped with *P-2V7 Neptunes* while the West Coast squadrons retained the *Lancasters*. The *Argus*, the newest maritime patrol aircraft and largest aircraft built in Canada, made its inaugural flight early in 1957.

Air Transport Command continued to provide support to the Air Division in Europe using its *North Star* aircraft. *Fairchild C-119's* of the Command were engaged in cargo and personnel carrier operations in Canada, and paratroop training for the Canadian Army. Both types were used for operations in support of Arctic weather stations. Toward the end of 1956, *C-119's* of Air Transport Command were assigned to the air element of Canada's contribution to UNEF and commenced operations using Naples, Italy, as a base.

The 1957 Shoran Program of 408 Photographic Squadron of Air Transport Command completed the geodetic trilateration of the Arctic Islands. This completed the basic geodetic survey undertaken by the Squadron in 1948, under direction of the Dominion Geodesist.

In 1957, ice reconnaissance in support of United States Navy ships supplying DEW line stations between 128°W. longitude and Boothia Peninsula was undertaken jointly by 408 and 407 Squadrons. An ice reconnaissance detachment was established at Cambridge Bay and daily reconnaissance flights were carried out from July 15 to Oct. 1, 1957.

During the year ended Mar. 31, 1957, search and rescue operations required the RCAF to fly in excess of 7,948 hours; 29 major searches and 143 mercy missions were conducted, some well inside the Arctic Circle.

Training and Equipment.—During the year ended Mar. 31, 1957, NATO aircrew training in Canada continued at a brisk pace. As of Dec. 31, 1956, 4,483 aircrew had been graduated under this plan since its inception in 1951. In addition, the RCAF was engaged in training aircrew for its own requirements. Basic trades courses for non-flying list officers produced 140 graduates and basic trade schools graduated 4,676 tradesmen during 1956-57.

Flight cadets entering the service received officer development training and primary flying training at Centralia, Ont. Basic flying training was conducted at flying training schools located at Claresholm, Alta., Moose Jaw, Sask., and Penhold, Alta. Advanced flying training on twin-engine aircraft was given at Saskatoon, Sask., and advanced flying training on jet aircraft was conducted at Portage La Prairie, Gimli, and MacDonald, Man. Flying instructor training was given at Trenton, Ont., and instrument rating courses were conducted at Saskatoon, Sask. Radio officers and observers received their basic and advanced training at Winnipeg, Man.

Formal trade courses for newly commissioned non-flying list officers were conducted at RCAF schools in aeronautical engineering, armament, supply, telecommunications and flying control. Aircraft system trainers were used extensively to support technician and aircrew training programs at field technical training units and the operational training units. Trade advancement training programs, continued at all units, both regular and auxiliary. To help tradesmen advance into the qualified trade group levels, semi-annual trade examinations were written under the direction of a Central Examination Board. Language training programs were conducted where necessary.

The aircraft procurement program during 1956 and 1957 is dealt with under Defence Production at pp. 1205-1209.

RCAF Reserve.—The sub-components of the RCAF reserves are designated as: (1) the Auxiliary; (2) the Primary Reserve; and (3) the Supplementary Reserve.

During the year ended Mar. 31, 1957, officer development courses were conducted for university flight cadets of the Primary Reserve. They participated in their first summer training program at the Reserve Officers School, St. Johns, Que., and at the Regular Officers School, London, Ont. Following this initial training, pilot trainees received flying training at various training schools while observer trainees were trained at the

Air Observers School, Winnipeg, Man. Non-flying list flight cadets continued with basic courses in aeronautical engineering, telecommunications, armament, supply and accounts. Flight cadets in the medical, air services and personnel lists were employed at Regular Force units on contact training and second and third-year flight cadets continued with formal or contact training as applicable. Third-year cadets were commissioned after successfully completing their period of training.

Refresher flying training was provided during the year for 500 Reserve pilots, to build up a pool of flying instructors. In addition, 475 Reserve officers and senior NCO's received contact training for mobilization assignments. The Reserve Tradesmen Training Plan was continued and approximately 1,739 recruits, both high school students and air cadets, completed training during 1956.

To provide a reserve of fighter pilots proficient in handling jet aircraft the RCAF maintains six Auxiliary Fighter squadrons. Three Auxiliary Transport squadrons are maintained to train a reserve of transport aircrew and two Auxiliary squadrons are equipped with *Mitchell* light bombers to operate, as required, with Canada's Mobile Striking Force. In addition, the RCAF maintains 17 Auxiliary Medical units, 17 Aircraft Control and Warning squadrons, 8 Technical Training units and 4 Auxiliary Intelligence units.

Royal Canadian Air Cadets.—Air cadet activities in Canada are sponsored and administered by the Air Cadet League of Canada. The League is a voluntary civilian organization formed in 1940 to provide preliminary aviation training for potential members of the Royal Canadian Air Force. The RCAF works jointly with the League and provides training personnel, syllabi and equipment.

During the War, the Royal Canadian Air Cadets reached a peak enrolment of 30,000. The authorized peacetime strength ceiling has recently been increased to 25,500 and the strength in April 1957 was approximately 22,000, enrolled in 297 squadrons across Canada. Air cadet training is carried out in more than 225 communities from Newfoundland to British Columbia.

During the summer of 1957 camps for air cadets were held at RCAF Stations at Greenwood, N.S., Clinton, Ont., and Sea Island, B.C. More than 5,400 cadets attended camp along with their officers and instructors. A seven-week course for senior leaders and drill instructors was held for 200 cadets at RCAF Station Camp Borden, Ont. A precision drill team of 40 cadets selected from the drill instructor course competed in the international drill competition at Toronto.

The International Exchange Visits Program in 1957, sponsored jointly by the RCAF and the Air Cadet League, was very successful. Fifty-eight cadets were exchanged with the United Kingdom, the United States, Denmark, the Netherlands, Norway and Sweden.

Two hundred and fifty senior air cadets receive flying training annually at flying clubs through scholarships awarded by the RCAF. Additional flying training scholarships were awarded by the Air Cadet League and other organizations. Under the Reserve Tradesmen Training Plan, air cadets receive trades training in a nine-week summer course in addition to preparatory training with their respective squadrons during the school year.

Subsection 4.—The Defence Research Board

The activities of the Defence Research Board in 1956 were concerned primarily with naval, armament, telecommunications, Arctic, special weapons, operational, medical, aeronautical and materials research problems of specific interest to Canadian defence. To conduct this program of research, the Defence Research Board operates 11 specialized research and development establishments, and organizes and supports research on problems of defence interest in universities and other agencies. Research on naval problems is carried out at the Naval Research Establishment, Dartmouth, N.S., and at the Pacific Naval Laboratory, Esquimalt, B.C. Both stations are located adjacent to Royal Canadian

Navy bases and work closely with the RCN, particularly on problems related to anti-submarine devices. Other major naval research investigations undertaken concern corrosion, marine paints, and underwater sound behaviour.

Research and development of weapons and armament is undertaken by the Defence Research Board in co-operation with the Armed Services at various establishments. The largest of these is the Canadian Armament Research and Development Establishment near Valcartier, Que. Its principal activities include research on new explosives and propellants, and development and testing of new and improved weapons.

Research on telecommunications is carried out in two laboratories—the Radio Propagation Laboratory at Shirley Bay, Ottawa, and the Electronics Laboratory on the Montreal Road, Ottawa. These two laboratories, known collectively as the Defence Research Telecommunications Establishment, are primarily concerned with research in problems of communications and air navigation, with particular emphasis on basic research in the fields of radio propagation and electronic component development.

Research dealing with problems in Arctic operations is conducted at the Defence Research Northern Laboratory, Fort Churchill, Man. The activities of DRNL have recently changed considerably. Its major effort has been devoted to the Canadian Geophysical Year (IGY) program and the associated United States IGY rocket program at Churchill.

Special weapons is the generic term used to cover research on the defensive aspects of chemical, biological, and atomic weapons. This work is carried out at the Defence Research Chemical Laboratories at Ottawa; the Suffield Experimental Station at Ralston, Alta.; the Defence Research Kingston Laboratory at Barriefield, Ont.; and at the Department of Agriculture isolation station at Grosse Île, near Quebec City.

Military, psychological, clothing and food research is carried out at the Defence Research Medical Laboratories near Toronto, and in Canadian universities by means of a grant-in-aid program. Aviation medicine is an important field of activity but investigations include naval and army problems as well as studies on blood substitutes, infection and immunity, burns and wounds, the effects of noise on hearing, and other factors likely to affect a military man's efficiency and health.

Most of the basic aeronautical research program is carried out in Canadian universities. The principal fields covered are aerodynamics, aircraft propulsion and engineering materials. Applied research is carried out at the National Aeronautical Establishment at Ottawa, and by contracts with industry. A titanium research program continues to be the major investigation in the materials field. This is carried out by the Mines Branch of the Department of Mines and Technical Surveys, and the Universities of Toronto, Laval and Montreal, in co-operation with various industrial firms.

Another field receiving increased emphasis is the radio propagation problem caused by the disturbances in the upper atmosphere. This distinctly Canadian problem has been recognized as an important one with relation to military communications in the North, and the Defence Research Board has granted assistance to the University of Saskatchewan for the establishment of an Institute of Upper Atmosphere Physics, where research on fundamental problems of the upper atmosphere will be conducted, and where postgraduate training will be given.

Thus, the Board continues to support those fields of research that are of foremost interest to the Canadian Armed Services, and the program is under continual review to ensure that cognizance is taken of all changes in emphasis in defence requirements. Close liaison is maintained between the Defence Research Board and the Department of Defence Production to ensure that research and development activities are closely integrated with production.

Section 2.—Services Colleges and Staff Training Colleges

Canadian Services Colleges.—The three Canadian Services Colleges are the Royal Military College of Canada founded at Kingston, Ont., in 1876, Royal Roads which was established in 1941 near Victoria, B.C., as a school for naval officers and Collège Militaire Royal de Saint-Jean established at St. Johns, Que., primarily to meet the needs of French-speaking cadets. The Royal Military College and Royal Roads were constituted as the Canadian Services Colleges in 1948, and Collège Militaire Royal de Saint-Jean was opened in 1952.

The purpose of the instruction and training at the Services Colleges is to impart the knowledge, to teach the skills and to develop the qualities of character and leadership essential to officers of all three Armed Services. The courses of instruction provide a sound and balanced liberal, scientific and military education; the organization and training give cadets the opportunity to command and to exercise judgment.

For cadets entering the Royal Military College and Royal Roads the course is of four years duration. As the third and fourth years of the college course are given only at the Royal Military College, cadets entering Royal Roads must proceed to that College for the final two years of the general or engineering courses. For cadets entering Collège Militaire Royal, which gives a preparatory year, the course is of five years duration. Cadets take the preparatory, first and second years at that institution and complete the final two years at the Royal Military College.

The College year is eleven months, divided into three terms: autumn, winter and summer. The months September to April are devoted to academic training supplemented by such military studies as drill and physical training. The summer term, May to mid-August, is spent in practical training at an establishment of the Service in which the cadet is enrolled. Academic requirements for admission to the first year at the Royal Military College and Royal Roads is senior matriculation (or its equivalent) in the following subjects: English, physics, mathematics (algebra, geometry and trigonometry), chemistry and either history or a language, preferably French. French-speaking candidates having a B.A. degree from a classical college may be accepted directly into the first year at Collège Militaire Royal. For admission to the preparatory year at that institution the academic requirement is junior matriculation (or its equivalent) in English, French, algebra, geometry, physics and chemistry, although consideration is given candidates who do not possess the standing in French. Candidates from the classical colleges require at least sixth-year standing.

To be accepted a candidate must be single, a Canadian citizen or British subject normally resident in Canada and physically fit in accordance with the medical standards of the Service in which he enrolls. The age limits for admission to the first year are between 16 and 21 years as of Jan. 1 of the year of entry; for admission to the preparatory year a cadet must have reached his 16th but not his 20th birthday on Jan. 1 of the year of entry. Personal interview and medical examination of candidates is carried out by tri-Service boards located at six regional centres across Canada. Three officers representing the Services and a representative of the Services Colleges sit on each interview board. Fifty per cent of the cadets entering the first year at the Services Colleges are selected on the basis of provincial quotas as determined by population and the remainder are selected in open competition. The interview boards base their recommendations on the physical and personal qualifications of the candidates, with responsibility for final selection resting with a board appointed by the Minister of National Defence.

Since September 1954 virtually all cadets entering the Services Colleges have been required to enrol under the Regular Officer Training Plan. Under this Plan applicants accepted for entry enrol, according to their choice, as naval cadets in the Royal Canadian Navy, as officer cadets in the Canadian Army or as flight cadets in the Royal Canadian Air Force. All costs of tuition, board, lodging, uniforms, books, instruments and other essential fees are borne by the Department of National Defence, and cadets are paid at the

rate of \$63 a month. On successfully completing their academic and military training cadets are granted permanent commissions in the regular force but may, if they so wish, apply for release after three years of service following completion of academic training.

The only cadets now accepted at the Services Colleges in a reserve capacity are those who qualify for Dominion Cadetships, which are awarded by the Government in recognition of sacrifice of a candidate's father. A maximum of 15 Cadetships may be awarded in any one year, five in each Service. Each is valued at \$580, which covers first-year fees.

During the 1956-57 academic year, 963 cadets were in attendance at the Canadian Services Colleges; 421 of them at Royal Military College, 194 at Royal Roads and 348 at Collège Militaire Royal de Saint-Jean. Of the total, 192 were enrolled in the Navy, 394 in the Army and 377 in the Air Force.

Staff Training Colleges.—The Canadian Army Staff College at Kingston, Ont., trains officers for staff appointments in field formations and commands. The course extends from January to November. Though most of the student body is comprised of Canadian Army officers, officers from the other two Services and from the armies of other Commonwealth and NATO countries also attend. Canadian Army officers must pass a searching entrance examination before being considered eligible for staff training. The system of instruction is based upon the study of précis and other references, demonstrations and lectures, indoor and outdoor exercises. Most of the work is carried on in syndicates, each under a member of the directing staff. Attention is paid to both individual and team work. Aside from purely military subjects such as the study of modern tactics, the curriculum includes world affairs and lectures by prominent guest speakers.

The National Defence College at Kingston, Ont., opened on Jan. 5, 1948, is a senior defence college providing an eleven-month course of study covering the economic, political and military aspects of the defence of Canada. Senior officers and civil servants from the Armed Forces and government departments attend as well as a few representatives from industry. An extensive lecture course is provided, with lecturers chosen from leaders in various fields in Canada, the United States, the United Kingdom and other countries. In addition, educational tours and visits to certain parts of Canada, the United States, Europe and the Middle East are made to give students more knowledge of conditions and influences in their own and other countries. The ninth course, from September 1955 to July 1956, was attended by 29 students, three from the Royal Canadian Navy, four each from the Canadian Army and the Royal Canadian Air Force, one from the Defence Research Board, two from the Department of External Affairs, one each from the Department of National Defence, the Department of Trade and Commerce, the Department of Transport (Air), the Royal Canadian Mounted Police, the Canadian Broadcasting Corporation, The Bell Telephone Company of Canada and the Canadian Pacific Railway. Representation from outside Canada included one member each from the Royal Navy, the Royal Air Force, the British Army, the Foreign Office of the United Kingdom, the United States Navy, the United States Air Force, the United States Army and the State Department of the United States.

The Royal Canadian Air Force Staff College at Armour Heights in Toronto, Ont., is a permanent establishment preparing officers for staff appointments in the Air Force. The course affords advanced Service education for officers normally of Wing Commander and Squadron Leader ranks, fitting them for appointments appropriate to their present ranks and preparing them to assume higher appointments. The Directing Staff selected from the Royal Canadian Air Force is augmented by an exchange officer from the Canadian Army and one from the Royal Air Force. The student body in addition to Royal Canadian Air Force officers has one or two representatives each from the Royal Canadian Navy, the Canadian Army, the Royal Air Force and the United States Air Force. The objective of the course is to assist the student to think logically and express his ideas with precision both orally and in writing, to know his Service and understand the employment of air forces, to keep abreast of scientific and technical development that may affect the employment of air forces and to gain a perspective of national and international problems.

Lecturers are drawn, when desirable, from industry, the Armed Forces, the diplomatic corps and universities. Instructional visits are made to commercial and military establishments at home and abroad.

PART II.—DEFENCE PRODUCTION*

The Department of Defence Production was established on Apr. 1, 1951, under the provisions of the Defence Production Act (R.S.C. 1952, c. 62 as amended) with exclusive authority to procure the goods and services required by the Department of National Defence and to ensure that the necessary production capacity and materials would be available to support the defence production program. The Department also buys material for the civil defence program and serves as procurement agent for the Canadian Commercial Corporation, a Crown company primarily responsible for the purchase in Canada of defence goods required by other governments and of supplies needed to meet Canadian commitments under the Colombo Plan and other international agreements. Military construction is the main responsibility of Defence Construction (1951) Limited, a Crown company reporting to Parliament through the Minister of Defence Production.

During the period Apr. 1, 1951, to the end of 1957, the Department of Defence Production and Defence Construction (1951) Limited placed defence contracts on behalf of the Department of National Defence to a total net value of \$6,753,000,000. Against these contracts, and some \$400,000,000 worth of contracts taken over in 1951 from other agencies, expenditures amounting to \$6,690,000,000 were made from appropriations of the Department of National Defence. The significant role of procurement and construction in Canada's defence preparedness program is shown by the fact that 58 p.c. of total defence expenditures by the Department of National Defence since Apr. 1, 1951, was made against contracts placed by the Department of Defence Production and Defence Construction (1951) Limited. In addition, the Department assisted defence contractors in meeting these requirements by making available specialized capital assets worth \$183,500,000 and also approved accelerated depreciation on capital assets having an estimated value of \$737,000,000. The aircraft program (including miscellaneous government-furnished aircraft equipment) accounted for 37 p.c. of the total net value of contracts placed from Apr. 1, 1951 to Dec. 31, 1957, the construction program for 12.5 p.c., the electronics and communication equipment program for 10.3 p.c., and the ship program for 7.4 p.c.

The following procurement and construction review covers the years 1956 and 1957, continuing that for 1954 and 1955 given in the 1956 Year Book, pp. 1169-1175.

The net value of contracts placed in 1956 totalled \$746,500,000, which was an increase of 2.8 p.c. over the \$726,200,000 placed in 1955, but dropped 18.8 p.c. in 1957 to a level of \$606,100,000. Contracts and amendments placed under the aircraft program amounted to \$194,000,000 in 1957 as compared with \$236,200,000 in 1956, accounting for almost one-third of the total net value of contracts placed in both years. A substantial portion of the contracts and amendments issued in connection with the aircraft program during these two years was for the *CF-105* jet intercepter fighter, the *CP-107* maritime reconnaissance aircraft, the *CC-106* military transport aircraft and *Sparrow II* guided missiles for the Royal Canadian Air Force; and for the *Grumman CS2F* carrier-based aircraft for the Royal Canadian Navy. The value of contracts placed for the electronics and communication equipment program increased during 1956 and 1957 primarily as a result of equipment and management requirements for the Mid-Canada Early Warning radar line. The value of procurement for fuels and lubricants increased 17 p.c. in 1956 over 1955 but fell off slightly in 1957. Other programs such as ships, tank-automotive, weapons, and clothing and equipage recorded declines in both years. Construction contracts declined from \$138,400,000 in 1955 to \$125,000,000 in 1956, and, as a result of the completion of the Mid-Canada line and Camp Gagetown, fell to \$60,300,000 in 1957. The net value of contracts placed, as used here, includes the value of new contracts issued as well as the value of amendments which increase or decrease commitments under existing contracts.

* Prepared by the Economics and Statistics Branch, Department of Defence Production, Ottawa.

1.—Net Value of Canadian Government Defence Contracts Placed, by Program 1956 and 1957 with Cumulative Totals from 1951

| Program | 1956 | 1957 | Total Apr. 1, 1951- Dec. 31, 1957 |
|--|----------------|----------------|---|
| | \$'000 | \$'000 | \$'000 |
| Aircraft..... | 236,175 | 193,950 | 2,502,804 |
| Ships..... | 61,160 | 55,743 | 499,804 |
| Tank-automotive..... | 13,464 | 12,277 | 296,484 |
| Weapons..... | 9,551 | Cr. 18,064 | 176,314 |
| Ammunition and explosives..... | 8,042 | 6,497 | 298,103 |
| Electronics and communication equipment..... | 105,304 | 123,209 | 698,069 |
| Fuels and lubricants..... | 64,156 | 58,231 | 336,757 |
| Clothing and equipage..... | 12,108 | 7,614 | 254,335 |
| Construction..... | 125,052 | 60,316 | 846,657 |
| Other..... | 111,489 | 106,279 | 843,547 |
| Totals..... | 746,501 | 605,054 | 6,752,874 |

The value of expenditures on defence procurement and construction, which reached a peak in 1953, continued to decline in 1956 and 1957. Expenditures in 1956 decreased by 2.4 p.c. from the preceding year to \$958,500,000 and by a further 9.3 p.c. in 1957 to \$869,600,000. In the aircraft and ships programs, expenditures declined in 1956 but increased slightly in 1957. In electronics and communication equipment and in construction the reverse movement took place, with expenditures increasing in 1956 and decreasing in 1957. The tank-automotive, weapons, ammunition and explosives, and clothing and equipage programs all registered declines in both years. Expenditures on defence construction increased 45 p.c. in 1956 over 1955 but declined by one-third to \$105,400,000 in 1957.

2.—Value of Expenditures on Canadian Government Defence Contracts, by Program 1956 and 1957 with Cumulative Totals from 1951

| Program | 1956 | 1957 | Total Apr. 1, 1951- Dec. 31, 1957 |
|--|----------------|----------------|---|
| | \$'000 | \$'000 | \$'000 |
| Aircraft..... | 329,671 | 346,435 | 2,548,436 |
| Ships..... | 80,759 | 83,579 | 567,725 |
| Tank-automotive..... | 22,398 | 13,992 | 287,140 |
| Weapons..... | 18,423 | 15,628 | 150,418 |
| Ammunition and explosives..... | 46,558 | 31,085 | 270,856 |
| Electronics and communication equipment..... | 129,670 | 98,676 | 628,659 |
| Fuels and lubricants..... | 47,775 | 47,826 | 276,104 |
| Clothing and equipage..... | 16,004 | 10,652 | 257,954 |
| Construction..... | 159,403 | 105,380 | 915,152 |
| Other..... | 107,829 | 116,352 | 788,020 |
| Totals..... | 958,489 | 869,636 | 6,690,463 |

The ability of Canadian industry to produce a greater variety of defence items made it possible to place 96.5 p.c. of the value of defence contracts in this country in 1956 and 91.0 p.c. in 1957. This represents a significant achievement over earlier periods of the defence program when industry in Canada received a much smaller proportion of the defence contracts. Contracts placed abroad are for items that cannot be economically produced in Canada within the limits of current and anticipated defence requirements.

Aircraft.—The *F-86 Sabre* jet fighter program for the RCAF was completed in 1957, but production continued on a contract for the West German Air Force. In 1956, *Sabre* production had been reduced slightly from the level of 1955 though a reduction in deliveries to the RCAF was partly offset by company export sales to the Union of South Africa and to Colombia. The *CF-100* jet interceptor continued in production at a reduced rate throughout 1956 and 1957. A reduction in the quantity of *CF-100* aircraft delivered to the RCAF, and the termination of the *Mark-6* program in 1957, were more than offset by a United States Mutual Aid purchase of a large number of these aircraft for Belgium. The output of jet powered *T-33 Silver Star* training aircraft was maintained at a minimum level during these two years. The first deliveries of the *CS2F Tracker* aircraft to the Royal Canadian Navy took place in 1956 as scheduled and continued in production through 1957. This aircraft, powered by twin *R-1820-82* piston engines, is designed for the detection and destruction of submarines. Both airframe and engines are being built in this country to United States designs, and the work is being shared widely by Canadian industry through a broad sub-contracting program. During the two years under review, rapid strides were made in the development and production of the *CF-105* supersonic jet fighter, the first of which came off the line on schedule late in 1957. The speed and altitude capability demanded of this aircraft necessitate the highest standards in equipment and materials, and Canadian industry has had to develop special manufacturing techniques to meet this need. The first flight of the long-range maritime reconnaissance aircraft, the *CP-107 Argus*, was made in 1957. This craft is a re-design of the *Bristol Britannia* civil aircraft. A transport version of the *Argus*, designated the *CC-106*, was introduced for engineering and tooling during 1957; its engines and associated propellers are of British make.

In the aero engine field, activity paralleled that for airframes. Production of *Orenda* engines for the *Sabre* and *CF-100* aircraft continued at reduced rates. Development of the more powerful *PS-13 Iroquois* engine, to be fitted in the *CF-105*, proceeded satisfactorily and a prototype was air tested in 1957. In the Canadian piston engine facility, the production of *R-1340 Wasp* engines for the Mutual Aid Program was completed late in 1956, with the manufacture of long-term maintenance parts continuing throughout that year. During 1957 the production of *Wasp* engines was largely replaced by the production of *R-1820-82* engines for the *CS2F Tracker* aircraft. The manufacture of *43D51* propellers for the *Tracker* also proceeded satisfactorily.

The repair and overhaul of aircraft, aircraft engines, instruments, systems and accessories occupy a position of increasing importance. The repairs and overhaul needs of older items of equipment increase with the passage of time and, at the same time, the growing complexity and more stringent operational requirements of newer equipment impose new demands on the repair and overhaul facilities. These facilities were kept abreast of new developments, and relatively stable work loads were maintained through a system of progressive overhaul followed by the Department of National Defence.

Early in 1956, the *Sparrow II* missile, developed in the United States, was chosen to meet RCAF requirements for air-to-air guided missiles, superseding the Canadian weapon, *Velvet Glove*. As a result of this decision, work among the Canadian contractors employed on the *Velvet Glove* program was limited to the minimum needed to keep intact the engineering complex which had been developed and to maintain a nucleus of essential personnel. By the end of 1957, the bulk of the drawings, technical data, and other information relative to *Sparrow II* had been received from the United States, thus permitting certain activity among manufacturers of special equipment in Canada. This missile is to be modified for use in the *CF-105 Arrow* aircraft.

Electronics.—The procurement and production of electronic equipment for defence reached a peak in 1956. The completion of the Mid-Canada radar line, the postponement of production for the radar improvement program and the approaching completion of some existing production contracts together with a slow-down caused by the change-over from the *Velvet Glove* to the *Sparrow* missile caused a decline in 1957. This decline, however, was partially offset by activity on the development of the electronics system for the *CF-105*

aircraft, begun in mid-1956 and continued through 1957. Although this development is taking place in the United States, production of the system will be in Canada with the most practical degree of Canadian content. The electronics program for the *Sparrow* missile started early in 1957 and involved limited tooling and pre-production. Some missile fuze development work was also continued pending a decision on the production requirements for the *Sparrow* fuze; this is a specialist skill which has been built up in Canada since 1951. Delivery of the *CF-100* flight simulators, which began in 1956, continued throughout 1957.

The ultra high frequency (UHF) conversion program for the RCAF progressed, with ground-based equipment procurement nearing completion and on-site installation well under way by the end of 1957. A production program for modern multi-channel airborne UHF equipment was started. A contract for airborne radar equipment for the *CS2F* aircraft was completed by the end of 1957, leaving only support spares to be provided. Canadian industry, sponsored by a development contract, produced airborne doppler navigational equipment which is considered to be a forerunner in this field. The Mid-Canada radar line, a significant achievement of the defence program, was completed early in 1957 and is now an integral part of the North American defence network. The line, which was completely financed by Canada, lies between the joint Canadian-United States-financed Pinetree line to the south and the United States-financed Distant Early Warning (DEW) line to the north. In 1957, two civilian contractors were selected to be responsible for carrying out maintenance and to supply supporting services on the Mid-Canada line for the RCAF. Maintenance contracts, to provide back-up support for RCAF-manned Pinetree line stations, were in effect during this period.

Shipbuilding.—The light fleet carrier, *HMCS Bonaventure*, was commissioned on Jan. 17, 1957. The *Bonaventure* was built in Northern Ireland and is one of the most modern light fleet carriers afloat. It is equipped with an angled flight deck, mirror landing aids, steam catapult, and the latest electronic equipment. Three destroyer escorts were commissioned during each of the years 1956 and 1957. These are sister ships of *HMCS St. Laurent*, the lead ship of this Canadian design class which was completed in 1955. The lead ship of the second group of destroyer escorts, *HMCS Restigouche*, was also scheduled for commissioning in 1957 but was damaged in a collision during sea trials. Work continued on the other six ships of the second group. During 1957, authority was granted for the construction of two additional destroyer escorts and for the procurement of long lead components for four ships.

The first of six MCB-class coastal minesweepers was commissioned late in 1956 and the other five were commissioned in 1957. These ships, an advanced version of the earlier AMC-class, were designed in Canada to cope with the latest developments in mines. The second program for modernizing World War II frigates was nearly completed, with four of the five ships commissioned by the end of 1957. Various auxiliary craft were produced, including 150-foot sea-going tugs, steel crane lighters, inner patrol vessels, clearance diving vessels, power barges, and ammunition lighters. Fifty-two small boats were completed in 1956 and 40 in 1957, varying in size from 27-foot motor sea boats to 14-foot dinghies. Delivery of a later type United States torpedo manufactured in Canada began in 1957.

Weapons and Ammunition.—During 1956, final deliveries were made to the Canadian Army of the first order for 105mm howitzers, and a second order was placed with deliveries to begin in 1958. The delivery of 155mm howitzers to the Army was completed during 1957. A combined order for 105 and 155mm lifetime spares was placed during 1957 and deliveries will run concurrently with the main equipment. This action will eliminate the high costs involved in start-and-stop manufacture of small quantities of components. The production for the Army of rocket launchers and associated range finder sights was completed. In the small arms category, Canadian Arsenals Limited began delivery of the new 7.62mm C-1 (FN) rifle in October 1956. A 7.62mm light machine

gun was approved in 1957 and production will run concurrently with the rifle. Early in that year, a contract was placed in Canada for a British sub-machine gun adopted by Canada.

The production of ammunition generally declined in both 1956 and 1957. However, ammunition production for the 7.62mm rifle was increased to permit general issue. A propellant for this ammunition, which has met NATO standards, was developed by Canadian Arsenals Limited, extending the storage life of the ammunition. Production continued on other types of small arms ammunition: .30, .303, 9mm, 20mm, and numerous pyrotechnics and explosive stores for the three Services; 40mm, 3"50, 4", and anti-submarine devices for the Navy; 2", 60mm, 81mm mortar and 105mm howitzers for the Army; 2.75" air-to-air rockets and marine markers for the RCAF. Canadian production of Army mines, fuze 410, certain anti-submarine projectiles, double-base rocket propellant grains, echo ranging bombs, and certain pyrotechnics occurred for the first time. A production program for 20-pdr. tank ammunition, incorporating three years of pre-production work on improvement, got under way.

Construction.—Defence construction activity in 1956 was exceeded only in 1952, mainly as a result of work on the Mid-Canada radar line and the Army home station development program. The completion of the Mid-Canada project and reduced work required for the home station development program caused a significant drop in defence construction in 1957. The Mid-Canada line was the largest single project undertaken by Defence Construction (1951) Limited on behalf of the Department of National Defence, and construction of Camp Gagetown, N.B., one of the seven home stations, was the largest project undertaken on a single site. The other home stations under construction were at Valcartier, Que., London and Petawawa, Ont., Winnipeg, Man., and Edmonton and Calgary (Camp Sarcee), Alta.

General Purchasing.—The general purchasing program is primarily concerned with the clothing, equipping, feeding, maintaining and servicing of the Canadian Armed Forces, and the purchase of certain supplies for the Defence Research Board and the Inspection Services of the Department of National Defence. These general purchases of supplies and services not normally requiring special production facilities include such items as: textiles and all types of clothing, footwear and leather goods, transport equipment (military and commercial) together with parts and replacements, the repair and reconditioning of all types of service vehicles, food and catering services, furniture and furnishings, petroleum products and hard fuels, medical and dental stores, aerial surveys, building supplies, and all types of barrack stores. Some of the major contracts placed during 1956 and 1957 were for electrical aircraft spares for *F-86 Sabre* aircraft, shipboard cable for the destroyer-escort program and for normal maintenance needs, certain requirements for the Mid-Canada project, fuel for aircraft, equipment for winter maintenance of airdromes, refueling and crash fire trucks for the RCAF, maintenance equipment for the Air Division in Europe, and a number of aerial surveys.

The fourteen district offices maintained by the Department of Defence Production across Canada continued to purchase food and other defence supplies and services of a local or urgent nature needed by defence establishments in the vicinity of such offices. Other purchases included hardware and building materials, electrical and electronic equipment, petroleum products, furniture, and barrack stores. Service contracts were arranged for minor repairs to ships, minor alterations and repairs to buildings, laundry and dry cleaning, coal hauling, disposal of ashes and refuse, snow removal, transportation, consulting engineering services, and repairs to footwear and clothing.

PART III.—CIVIL DEFENCE

The continuing threat of armed aggression, coupled with the increasing power of thermo-nuclear weapons, has forced upon Canada a constant development of new civil defence techniques and training methods. Civil defence planning is integrated with the over-all plan for national defence with the aim of survival in the event of direct attack. A further role is the provision of aid to the civil powers in times of natural disaster.

In October 1948, the Minister of National Defence appointed a Co-ordinator for Civil Defence whose duty it is to plan for civil defence. Assisting in this program are the Federal Civil Defence Planning Committee, an Interdepartmental Committee and a Federal-Provincial Advisory Committee composed of the federal Minister responsible for civil defence, as chairman, and the provincial Ministers responsible for civil defence within the provinces.

Since February 1951, when the administration of civil defence was transferred to the Department of National Health and Welfare, the Minister of that Department has been charged with the responsibility in matters of federal policy. After study of organizations in the United Kingdom, the United States and NATO countries, a plan for national survival was established, based on the evacuation of probable urban target areas. The Minister of National Health and Welfare announced the plan as government policy in the House of Commons on July 28, 1956, when he stated, "Our civil defence policy should now be based on the development and testing of plans for the orderly evacuation on short notice of the main target areas in Canada should the possibility of attack on such areas by nuclear weapons appear to be imminent".

On the basis of population density and industrial potential, Canada's probable target areas are: Victoria, Vancouver, Edmonton, Winnipeg, Windsor, Hamilton, Niagara Falls, Toronto, Ottawa-Hull, Montreal, Quebec City, Saint John and Halifax.

Canadian civil defence is organized at all levels of government—federal, provincial and municipal—each with its own sphere of responsibility. The provinces are self-contained units and are subdivided into areas or regions for the purpose of providing mutual support to any disaster region. Because of geographical location in relation to target centres, certain areas have been designated as mutual aid or reception areas. Administrative and organization responsibilities for each are: federal—planning, policy and financial assistance; provincial—organization and implementation; municipal—execution of plans and policy.

A Federal Civil Defence Headquarters is established in Ottawa and comprises the Civil Defence Co-ordinator and staff plus the following Services: Planning and Operations, Training and Education, Health, Welfare, Information, Communications and Transportation. Certain other government agencies are also involved, such as the Royal Canadian Mounted Police, the Armed Services, the Departments of Agriculture and Transport, and the Defence Research Board.

Through direct liaison with the RCAF an early warning system has been established. In 1957, high-power sirens supplied by the Federal Government were installed and tested in vulnerable target areas. An extensive health supply stockpiling program was completed with the co-operation of the Departments of National Defence and Veterans Affairs.

Civil defence training courses, begun in 1951, have been continually expanded. More than 9,000 persons from across Canada have attended courses at the Canadian Civil Defence College at Arnprior, Ont., since its establishment in 1954. Thirteen basic courses are available dealing with such subjects as: health, welfare, communications, transportation, staff duties, casualty simulation, rescue, and radiation detection. In addition, special forums have been held for groups representing the press, clergy, mayors, police, fire fighters, national organizations such as the Canadian Red Cross Society, and industrial groups. Training is conducted under provincial auspices with British Columbia, Alberta, Saskatchewan and New Brunswick operating civil defence schools. On Mar. 31, 1957, the total enrolment of civil defence workers was 224,146.

Under the Financial Assistance Program of the Federal Government each province is provided with a money quota based on population and vulnerability; 50 p.c. of the cost of an approved project is contributed by the Federal Government and the remainder shared between the municipality and the province. A minimum of 25 p.c. is contributed direct to a municipality for projects in which the provincial government does not share in the cost. Training aids, fire and rescue equipment, and educational material continue to be supplied by Federal Headquarters to further provincial and municipal programs.

A fire-hose coupling standardization program, to which the Federal Government contributed one-third of the cost, has been completed in British Columbia, Alberta and Ontario. Payments for workmen's compensation for civil defence workers are shared by agreement on an equal basis between the Federal Government and all provinces except Quebec, Nova Scotia and Prince Edward Island.

Many technical and training manuals, booklets and brochures have been produced by Federal Civil Defence Headquarters. In addition, pamphlets, folders, training aids, films, slides, newsclips and radio, newspaper and television material have been produced and distributed as part of the continuing public information program. The first National Civil Defence Day in Canada held on Friday, Oct. 4, 1957, was primarily designed to further acquaint the citizens of the country with the aims, organization and planning for civil defence. Provincial and municipal organizations from coast to coast took part. Over 2,000,000 pieces of informational material and literature were distributed by Federal Headquarters in this national and co-operative program.

Civil defence development and problems are constantly under discussion and study with the United States, the United Kingdom and other NATO countries. As the result of an agreement made between Canada and the United States in 1951, a United States-Canada Civil Defence Committee meets at regular intervals to further the bond of mutual assistance in the event of enemy attack.

CHAPTER XXIX.—SOURCES OF OFFICIAL INFORMATION AND MISCELLANEOUS DATA

CONSPECTUS

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PART I.—SOURCES OF OFFICIAL INFORMATION

Section 1.—Federal Government Information Services

The chief source of statistical information on all phases of the economy of Canada is the Dominion Bureau of Statistics where the ten-year and five-year censuses of Canada are planned and statistical information of all kinds—federal and provincial—is centralized. Information that is not mainly statistical may be secured from the individual Department concerned with the particular subject as indicated in the Directory at pp. 1217-1246. Certain government bodies and national agencies, because of the nature of their work and the appeal it has to broad sections of the population, are organized primarily as information or publicity agencies. Among these are: the Information Division, Department of External Affairs, which deals with questions about external affairs originating in Canada and with general requests originating abroad for information on Canada and Canadian affairs; the Trade Publicity Branch, Department of Trade and Commerce; the Information Services Division, Department of National Health and Welfare; the Canadian Broadcasting Corporation; and the National Film Board. (*See Index.*) The Departments of Agriculture, Northern Affairs and National Resources, and Mines and Technical Surveys, and such agencies as the National Gallery of Canada, the National Museum of Canada, the National Library, and the National Research Council, while not thus classed, are interested in the dissemination of information to a greater extent than most of the remaining government departments, though several of the latter have publicity branches or public relations divisions.

Government departments, with few exceptions, issue their own lists of reports and publications. Departments are required by statute to publish annual reports, which are tabled each year in the House of Commons by their respective Ministers. However, for the purpose of this Section, only the services of the six information agencies mentioned above are described.

Section 2 has been prepared for the purpose of presenting to the reader a directory of all sources of information, federal and provincial, thereby directing him to the proper channels from which he may draw published material relating to any particular subject.

The Dominion Bureau of Statistics.—The Dominion Bureau of Statistics was set up by statute in 1918 as a central statistical department for Canada (8-9 Geo. V, c. 43). In 1948 this statute, which had been consolidated as the Statistics Act (R.S.C. 1927, c. 190), was repealed and replaced by the Statistics Act (R.S.C. 1952, c. 257), subsequently amended in March 1953 (1-2 Elizabeth II, c. 18).

The chief aims of the Dominion Bureau of Statistics are: (1) to furnish statistical data bearing on Canada for government and administration, whether municipal, provincial, national or international; and (2) to assist in meeting the needs of non-governmental users of statistics, arising from a growing awareness of the value of statistics to business efficiency and social planning.

Inquiries.—Hundreds of individual requests for information are received in the Information Services Division of the Bureau each day, routed through the appropriate divisions and answered as expeditiously as possible. Since the field of effort from the statistical side deals with all phases of the national economy, there is scarcely a subject upon which the Bureau is not able to give some information. Nevertheless only inquiries of a statistical nature should be directed to the Dominion Bureau of Statistics.

Publications.—The Dominion Bureau of Statistics is the principal publication agency of the Federal Government; the subjects of its statistical reports cover all aspects of the national economy, and its *Canada Year Book* and *Official Handbook Canada* constitute authoritative compendiums of information on the institutions and economic and social development of Canada.

Dominion Bureau of Statistics publications are listed in its catalogue of *Current Publications* and in the Queen's Printer's *Catalogue of Canadian Government Publications*. The *DBS Daily Bulletin* and *Weekly Bulletin*, available from the Bureau's Information Services Division at an annual subscription of \$1.00 each, are designed to serve persons wishing to keep closely informed on the full range of published information issued by the Bureau. Subscription orders for DBS publications or orders for single copies should be addressed to the Information Services Division, Dominion Bureau of Statistics, Ottawa, and should contain the necessary remittance in the form of a cheque or money order made payable to the Receiver General of Canada.

Information Division, Department of External Affairs.—The Information Division has two functions: to promote within Canada interest in and knowledge of international affairs, and to make Canada and Canadian policies better known and understood abroad.

To perform the first function the Division produces and distributes various documents on external affairs—statements of government policy and reports on related developments abroad and on the work of the Department generally. The Division also answers inquiries from Canadian sources on these subjects (except for inquiries from the press which are handled by the Department's Press Office) as well as requests for information about Canada made by Diplomatic Missions at Ottawa, by Canadian posts abroad, and by individuals and organizations in other countries.

Most of the information work abroad is done, however, by officials at Canadian posts. The Information Division assists by formulating and advising on information policy abroad in an effort to ensure that this policy is related to the general objectives of Canadian foreign policy, and by producing and procuring material to keep Missions informed of developments within Canada. Journalists and others who visit Canada to write of Canadian affairs are given assistance from time to time by the Division; its responsibilities also include the co-ordination of the Government's activities in the field of cultural relations.

Trade Publicity Branch, Department of Trade and Commerce.—For details see p. 1062.

Information Services Division, Department of National Health and Welfare.—The responsibility of this Division, in co-operation with other divisions of the Department of National Health and Welfare and provincial authorities, is the production and distribution of educational material on health, welfare, social security and civil defence, for use throughout the country. This information, issued in the English and French languages, includes books, pamphlets, periodicals, posters, exhibits, displays, radio dramatizations, press and magazine features and releases, as well as films and film-strips prepared in co-operation with the National Film Board. Books, pamphlets, posters and displays are distributed in Canada through provincial authorities. The most important periodicals published by the Division are *Canada's Health and Welfare* (monthly), *Canadian Nutrition Notes* (monthly), *Occupational Health Bulletin* (monthly), *Industrial Health Review* (semi-annually) and *Nutrition Bulletin* (annually).

Canadian Broadcasting Corporation.—Television and radio broadcasting are important mediums of information to the public along with newspapers, films and other means of communication. Broadcasting in Canada combines, in one national system, publicly owned stations and privately owned local community stations, many of which are affiliated with the Canadian Broadcasting Corporation's networks.

Since its establishment in 1936 the Canadian Broadcasting Corporation has become one of the most effective channels through which information, official and unofficial, is broadcast to the people of Canada. Radio is relatively more important in Canada than in most countries because of the widely distributed population and the number of sparsely peopled areas, and the CBC has gradually bridged the gaps with high-powered transmitters designed to serve rural as well as urban areas. The CBC has also pioneered in the development of low-powered repeater stations attached to the network lines, which serve areas unable, because of topographical conditions, to receive an adequate signal from any existing station.

News broadcasts and information programs occupy a considerable proportion of national and regional network time. All CBC schedules include news, music, drama, informative talks, children's programs, school broadcasts, public service broadcasts, sports, women's activities, etc. There is a very wide range of radio and television fare, since the CBC not only produces its own programs in the various production centres across Canada but brings in selected programs from the networks of the United States, the British Broadcasting Corporation and other national radio and television systems. The CBC maintains a bureau at London, England, and at United Nations Headquarters in New York, and is credited with having done more to inform listeners of United Nations activities than any other broadcasting system.

Through the International Service operated by the CBC on behalf of the Canadian Government, programs are broadcast over shortwave in 16 languages: English, French, German, Dutch, Danish, Norwegian, Swedish, Italian, Spanish, Portuguese, Czech, Slovak, Russian, Ukrainian, Polish and Hungarian. The CBC International Service broadcasts information abroad on life and economic conditions in Canada as part of the general information plan for promoting a better understanding of Canada in other countries. In addition to this regular shortwave program service, the International Service provides special programs for transmission by broadcasting systems in other countries by means of shortwave relays or recordings on tape or disc. A library of musical and spoken-word programs is made available to foreign broadcasting systems through processed transcriptions for wide distribution.

National Film Board.—The National Film Board produces films, film-strips and still photographs on a great variety of subjects. In keeping with its terms of reference, the Board's products are both informative and interpretative and are widely distributed, theatrically and non-theatrically. (See also Educational and Cultural Functions of the National Film Board, pp. 365-366.)

As a service to government departments, the Board maintains a preview library of 5,000 prints from many sources; 500 film-strips are also catalogued. Special libraries of films on such subjects as health, sociology, medicine and industry have also been established for the use of the government departments concerned and for special interest groups.

Films and film-strips produced by the National Film Board are shown in Canada and abroad. In Canada, the films are shown through the television network, through neighbourhood theatres and through the widespread network of community film libraries. In most communities voluntary organizations, called film councils, arrange the local facilities for use of films by community groups. Abroad, more than 29,000 prints are circulated to the Departments of External Affairs and of Trade and Commerce through the Board's offices in New York and Chicago in the United States, New Delhi, India, and London, England. In several countries distribution of the Board's films are handled by commercial and other loan agencies.

The Board's library of approximately 100,000 still photographs serves government departments, commercial photographers, newspapers, periodicals and many other organizations in Canada and abroad.

Section 2.—Directory of Sources of Official Information (Federal and Provincial)

To make the best use of the Directory of Sources of Government Official Information, it is necessary that the reader understand the broad differences in function between federal and provincial departments and their separate fields of work.

Certain fields of effort, such as trade and commerce, customs and excise, currency and banking, navigation, transportation, radio, census of population and national defence are constitutionally federal affairs and in such fields the respective Departments at Ottawa are the proper sources with which to communicate. Other fields of effort such as the administration of lands and natural resources, education, roads and highways, and health and hospitals are the responsibility of the provinces but certain Federal Departments are also concerned with specific aspects of these subjects and, as is the case of the Dominion Bureau of Statistics, in the co-ordination and presentation of the material for Canada as a whole.

As a general guide to the public, it may be pointed out that questions relating to the actual development and administration of resources should be forwarded to the particular provinces concerned. The Government of Canada, while not administering the resources within provincial boundaries, co-operates closely with the provinces and is in a position to furnish material for Canada, especially production data on a national basis, marketing data on international, national and provincial bases, research, work and experimental station data on a national basis, and also on a provincial basis from Federal Government stations located within particular provinces. In agriculture, for instance, data on the breeding of livestock and the improvement of strains, on agricultural marketing and on crop yields are cases in point; in forestry, questions of forest research, forest fire protection and reforestation offer good examples. Inquiries directed to federal sources for information not of a statistical nature should as a general rule be sent to the individual Departments listed in the Directory; inquiries for information of a statistical nature should be addressed to the Information Services Division, Dominion Bureau of Statistics, Ottawa.

Sale of Official Publications.—Under the provisions of the Public Printing and Stationery Act, the Queen's Printer and Controller of Stationery, Ottawa, has charge of the sale of all official publications of Parliament and the Government of Canada that are issued to the public, as well as of the free distribution of all public documents and papers to persons and institutions (libraries) entitled by statutory provisions to receive them. The Dominion Bureau of Statistics acts as the agent of the Queen's Printer with respect to the sale of DBS publications.

The regulations relating to the distribution and sale of government publications made in accordance with the provisions of Sect. 7 of the Public Printing and Stationery Act and Sect. 7 (e) of the Financial Administration Act were brought up to date and approved by Treasury Board on Mar. 31, 1955.

In compliance with these regulations, the Queen's Printer and Controller of Stationery issues the *Daily Checklist of Government Publications* which records for the information of the public service, libraries, etc., all Federal Government publications immediately upon release. Those authorized by law or regulation to receive free copies of government publications receive the *Daily Checklist* without charge; others desiring the service may purchase an annual subscription to be forwarded daily or in weekly batches as requested.

The Queen's Printer and Controller of Stationery also issues the *Monthly Catalogue of Canadian Government Publications*, a comprehensive listing of all official publications, public documents and papers not of a confidential nature published at government expense, an *Annual Catalogue* (in January) listing all publications issued during the previous year, as well as sectional catalogues and selected titles bulletins advertising new government publications.

Most provincial government publications may be obtained from the Queen's Printer of the province concerned. Inquiries should be addressed to the provincial capital cities:—

| | | | |
|--------------------------|---------------|-----------------------|----------|
| Newfoundland..... | St. John's | Ontario..... | Toronto |
| Prince Edward Island.... | Charlottetown | Manitoba..... | Winnipeg |
| Nova Scotia..... | Halifax | Saskatchewan..... | Regina |
| New Brunswick..... | Fredericton | Alberta..... | Edmonton |
| Quebec..... | Quebec | British Columbia..... | Victoria |

Inquiries about the Yukon and Northwest Territories should be addressed to the Northern Administration and Lands Branch, Department of Northern Affairs and National Resources, Ottawa.

(Detailed Directory of Sources of Official Information follows, pp. 1217-1246.)

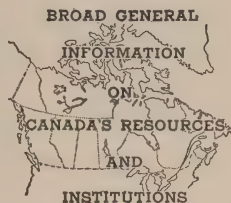
DIRECTORY OF SOURCES OF OFFICIAL INFORMATION

Sources for Federal Data

Subject

Sources for Provincial Data

Dept. of Trade and Commerce
Trade Publicity Branch
Dept. of Mines and Technical Surveys
Editorial and Information Division (for mineral resources)
Dept. of National Health and Welfare
Information Services
Dept. of Northern Affairs and National Resources
Editorial and Information Division
Dept. of External Affairs
Information Division (general requests originating in all countries outside Canada)
Dept. of Citizenship and Immigration
Editorial and Information Division
Dept. of Fisheries, Information and Educational Service
Dept. of Transport
Information Bureau
National Film Board (films, filmstrips, photographs on all subjects)
National Research Council
Public Relations Branch
Dominion Bureau of Statistics



For broad general information in regard to particular provinces application should be made to: Nfld., Dept. of Provincial Affairs; P.E.I., Tourist and Information Bureau; N.S., Dept. of Trade and Industry; N.B., Dept. of Industry and Development or Dept. of Provincial Secretary-Treasurer or N.B. Travel Bureau; Que., Bureau of Statistics; Ont., Bureau of Statistics and Research or Dept. of Travel and Publicity; Man., Dept. of Industry and Commerce and Dept. of Provincial Secretary; Sask., Dept. of Travel and Information, or Executive Council, Industrial Development Office, or Economic Advisory and Planning Board; Alta., Publicity Bureau, Dept. of Economic Affairs; B.C., Depts. of Industrial Development and Trade and Commerce, Bureau of Economics and Statistics.

Dept. of Agriculture
Information Service
Experimental Farms Service
Dept. of Trade and Commerce
Agriculture and Fisheries Branch
Dept. of Northern Affairs and National Resources (Yukon and Northwest Territories)
Dept. of Citizenship and Immigration
Immigration Branch
Indian Affairs Branch
Dept. of Labour (farm workers)
Dept. of Veterans Affairs
Dept. of Finance (farm improvement loans)
Canadian Farm Loan Board (long-term mortgage loans)
Central Mortgage and Housing Corporation (long-term mortgage loans for new farm houses)
National Film Board (films, photographs)
Dominion Bureau of Statistics

AGRICULTURE General and Farming

Nfld.—Dept. of Mines and Resources
P.E.I., N.S., N.B., Sask.—Depts. of Agriculture
Que.—Dept. of Agriculture, Information and Research Branch
Dept. of Trade and Commerce
Bureau of Statistics
Ont.—Dept. of Agriculture, Statistics and Publication Branch
Man.—Dept. of Agriculture and Immigration, Publications Branch and Extension Service
Alta.—Dept. of Agriculture
B.C.—Dept. of Agriculture, Dept. of Industrial Development, Trade and Commerce, Bureau of Economics and Statistics
Dominion Bureau of Statistics (summaries of provincial data)

Dept. of Citizenship and Immigration
Indian Affairs Branch
Dept. of Mines and Technical Surveys
Editorial and Information Division
Geological Survey of Canada
Surveys and Mapping Branch
Geographical Branch
Dept. of National Defence
Director of Public Relations
Defence Research Board
Dept. of National Health and Welfare (health services)
National Research Council
Division of Building Research (permafrost, buildings in the north, snow and ice)
Dept. of Northern Affairs and National Resources
Editorial and Information Division
Arctic Division
Dept. of Transport (Arctic navigation)
Fisheries Research Board of Canada
National Film Board (films, filmstrips and photographs)

ARCTIC

Sask.—Dept. of Natural Resources, Northern Administration District

| Sources for Federal Data | Subject | Sources for Provincial Data |
|---|-------------------------------------|--|
| Dept. of Mines and Technical Surveys Dominion Astrophysical Observatory, Victoria, B.C. Dominion Observatory, Ottawa, Ont. National Research Council Radio and Electrical Engineering Division (radio astronomy) | ASTRONOMY | Que.:—Office of Provincial Secretary Quebec Society of Astronomy Sask.:—University of Saskatchewan, Saskatoon Alta.:—University of Alberta, Edmonton |
| Atomic Energy Control Board (policy, regulations) Atomic Energy of Canada Limited (research studies, sale of radio-isotopes) Dept. of Mines and Technical Surveys Geological Survey of Canada Mines Branch Eldorado Mining and Refining Limited | ATOMIC ENERGY | Sask.:—University of Saskatchewan, Saskatoon Alta.:—Alberta Research Council, University of Alberta Campus, Edmonton |
| Dept. of Transport Civil Aviation Branch (controls, licences and facilities, such as radio aids and licences) Air Transport Board (licensing of commercial air services and the economic regulation of such air services) Bureau of Transportation Economics Trans-Canada Air Lines Dept. of National Defence Directorate of Public Relations (RCAF) Dept. of National Health and Welfare Civil Aviation Medicine Division Dept. of Defence Production Aircraft Branch Dept. of Mines and Technical Surveys Legal Surveys and Aeronautical Charts Division National Film Board (films and photographs) National Research Council Division of Mechanical Engineering (aeronautical research) Dominion Bureau of Statistics | AVIATION | Ont.:—Dept. of Lands and Forests, Air Service Man.:—Manitoba Government Air Services Sask.:—Saskatchewan Government Airways |
| Bank of Canada Industrial Development Bank Dept. of Finance Dept. of Insurance (for trust and loan business, administers also the Small Loans Act) Central Mortgage and Housing Corporation Post Office Department, Savings Branch Dominion Bureau of Statistics | BANKING Trust and Loan Companies | Nfld.:—Dept. of Finance Supreme Court Registry of Deeds P.E.I., N.S., Man.:—Dept. of Provincial Secretary N.B.:—Dept. of Provincial Secretary-Treasurer Que.:—Dept. of Finance, Insurance Branch Dept. of Trade and Commerce Bureau of Statistics Ont.:—Province of Ontario Savings Office Attorney-General, Dept. of Insurance Sask.:—Provincial Secretary, Registrar of Securities Dept. of Co-operation and Co-operative Development, Credit Union Services Alta.:—Government of Alberta Treasury Branches B.C.:—Dept. of Finance, Inspector of Trust Companies |
| Dept. of Justice Superintendent of Bankruptcy Dominion Bureau of Statistics | BANKRUPTCY | Man.:—Dept. of Provincial Secretary Sask.:—Provincial Secretary |

| Sources for Federal Data | Subject | Sources for Provincial Data |
|--|---|--|
| <p>National Library (information re books in libraries of federal departments and other Canadian libraries; information on current Canadian publications)</p> <p>Department of Public Printing and Stationery (information re prices, availability or otherwise, of all publications not confidential in nature, issued by Parliament and the various departments and agencies of the Government of Canada)</p> <p>Dominion Bureau of Statistics, Information Services Division (for statistical publications)</p> | <p>BIBLIOGRAPHY: BOOKS</p> | <p>Nfld.:—Dept. of Education Public Libraries Board</p> <p>P.E.I.:—Dept. of Education Superintendent of Libraries and Director of Adult Education</p> <p>N.S.:—Dept. of Education</p> <p>N.B., Man.:—Dept. of Education Provincial Librarian</p> <p>Que.:—Office of Provincial Secretary Provincial Archives Provincial Library</p> <p>Ont.:—Dept. of Education Director of Public Library Service</p> <p>Sask.:—Provincial Library Legislative Library</p> <p>Alta.:—Dept. of Economic Affairs Library Board Provincial Library and Archives</p> <p>B.C.:—Dept. of Education Provincial Library and Archives Public Library Commission.</p> |
| | <p>BIRTHS See "Vital Statistics"</p> | |
| <p>Dept. of National Health and Welfare</p> <p>Dept. of Northern Affairs and National Resources (Yukon and Northwest Territories)</p> | <p>BLINDNESS ALLOWANCES</p> | <p>Sources same as for "Old Age Assistance" excepting: P.E.I.:—Director of Blind Persons Allowances</p> |
| | <p>BROADCASTING See "Radio"</p> | |
| <p>Dept. of Public Works Building Construction Branch Chief Architect and Information Services</p> <p>Dept. of Northern Affairs and National Resources (water resources of Yukon and Northwest Territories)</p> <p>Central Mortgage and Housing Corporation (National Housing Act financing, building standards, house designs)</p> <p>National Research Council, Division of Building Research (materials of construction, building codes, building practice, soil and snow mechanics)</p> <p>Dept. of National Health and Welfare Hospital Design Division</p> <p>Dept. of Defence Production Defence Construction (1951) Limited</p> <p>Canadian Farm Loan Board</p> <p>Canadian Government Specifications Board</p> <p>Canadian Standards Association</p> <p>Dept. of Finance (Farm Improvement Loans Act)</p> <p>Dept. of Veterans Affairs (Soldier Settlement and Veterans' Land Act)</p> <p>Dominion Bureau of Statistics</p> | <p>BUILDING CONSTRUCTION</p> | <p>Nfld., N.B.:—Dept. of Public Works</p> <p>P.E.I.:—Dept. of Industry and Natural Resources</p> <p>Que.:—Farm Credit Bureau Family Housing Division Dept. of Trade and Commerce, Bureau of Statistics</p> <p>Ont.:—Dept. of Labour Factory Inspection Branch Dept. of Planning and Development Community Planning Branch</p> <p>Man., Sask.:—Dept. of Labour</p> <p>Alta.:—Dept. of Industries and Labour Provincial Bureau of Statistics</p> <p>B.C.:—Dept. of Finance, Housing Commissioner Dept. of Labour, Factory Inspection Branch Dept. of Industrial Development Trade and Commerce Bureau of Economics and Statistics</p> |

| Sources for Federal Data | Subject | Sources for Provincial Data |
|--|---|---|
| Dept. of Transport Canal Services National Research Council Division of Mechanical Engineering (St. Lawrence Seaway Models) Dominion Bureau of Statistics | CANALS | |
| Dept. of Trade and Commerce Commodities Branch Dominion Bureau of Statistics | CHEMICALS | |
| Dept. of Citizenship and Immigration Canadian Citizenship Branch Canadian Citizenship Registration Branch National Film Board (films, filmstrips, photographs) | CITIZENSHIP See also "Population" | |
| | CIVIL AVIATION See "Aviation" | |
| Dept. of National Health and Welfare Civil Defence Division | CIVIL DEFENCE | Nfld.:—Dept. of Provincial Affairs P.E.I., Man.:—Office of the Premier N.S.:—Dept. of Provincial Secretary N.B., Alta.:—Depts. of Municipal Affairs Que.:—Dept. of Social Welfare and Youth Ont.:—Dept. of Planning and Development, Civil Defence Branch Sask.:—Dept. of Social Welfare, Director of Civil Defence B.C.:—Dept. of Provincial Secretary, Provincial Co-ordinator |
| Dept. of Transport Meteorological Branch, Toronto National Research Council Division of Building Research, (Climatological Atlas of Canada, National Building Code) | CLIMATE | Que.:—Dept. of Lands and Forests Meteorological Bureau Man.:—Dept. of Trade and Commerce, Bureau of Statistics B.C.:—Dept. of Agriculture |
| Dept. of Mines and Technical Surveys Geological Survey of Canada Mines Branch Dominion Coal Board Dominion Bureau of Statistics | COAL | N.S., Que., Ont., B.C.:—Depts. of Mines N.B.:—Dept. of Lands and Mines Man.:—Dept. of Mines and Natural Resources, Mines Branch Sask.:—Dept. of Mineral Resources Alta.:—Dept. of Mines and Minerals |
| Dept. of Justice Director of Investigation and Research Restrictive Trade Practices Commission | COMBINES | |

Sources for Federal Data

Subject

Sources for Provincial Data

Dept. of Northern Affairs and National Resources
Northern Administration and Lands Branch (wireless communication in the Yukon and Northwest Territories)
National Parks Branch (telephones in National Parks)
Board of Transport Commissioners (regulation of certain telegraph and telephone companies)
Dept. of Transport
Telecommunication Branch—radio communications; aviation radio and marine radio; Government telegraph and telephone services (telegraph and telephone services in remote areas)
Canadian Overseas Telecommunication Corporation
Canadian Broadcasting Corporation (network broadcasting, television, and international short-wave service)
Dept. of Trade and Commerce
Transportation and Trade Services Division
Dominion Bureau of Statistics

COM-
MUNICATIONS
For Post Office
and Mail
see "Post Office"

Nfld.:—Dept. of Economic Development
P.E.I.:—Tourist and Information Bureau
N.B.:—Travel Bureau
Que.:—Public Service Board
Transportation Board
Ont.:—Municipal Board and Bureau of Statistics and Research
Man.:—Manitoba Telephone System
Sask.:—Dept. of Telephones
Saskatchewan Government Telephones
Alta.:—Dept. of Railways and Telephones
B.C.:—Dept. of Railways
RCMP Provincial Headquarters

Dept. of National Health and Welfare (social, welfare and recreation)
Central Mortgage and Housing Corporation
Federal District Commission
Information Division (general information on the Plan for the National Capital of Canada)
National Film Board (films, photographs)

COMMUNITY
PLANNING

Nfld.:—Dept. of Municipal Affairs and Supply
P.E.I.:—Dept. of Industry and Natural Resources
Dept. of Education, Physical Fitness Division
N.S.:—Dept. of Municipal Affairs
Dept. of Education, Physical Fitness Division
N.B.:—Dept. of Education, Physical Education and Recreational Branch
Que., Sask.:—Depts. of Municipal Affairs
Ont.:—Dept. of Planning and Development, Community Planning Branch
Dept. of Education, Community Programs Branch
Man.:—Depts. of Municipal Commissioner and Mines and Natural Resources, Surveys Branch
Dept. of Health and Public Welfare, Physical Fitness and Recreation Division
Sask.:—Dept. of Municipal Affairs, Community Planning Branch
Executive Council, Economic Advisory and Planning Board
Alta.:—Dept. of Municipal Affairs, Town and Rural Planning Branch
B.C.:—Dept. of Industrial Development, Trade and Commerce, Bureau of Economics and Statistics
Dept. of Municipal Affairs
Regional Planning Division
Dept. of Education, Community Programs Branch
Lower Mainland Regional Planning Board

| Sources for Federal Data | Subject | Sources for Provincial Data |
|--|--|---|
| Dept. of Northern Affairs and National Resources National Parks Branch, Canadian Wildlife Service Northern Administration and Lands Branch Forestry Branch Federal District Commission Dept. of Agriculture Experimental Farms Service Economics Division Prairie Farm Rehabilitation Administration Maritime Marshlands Rehabilitation Administration Dept. of Fisheries Information and Educational Service National Film Board (films, photographs) | CONSERVATION | Nfld.:—Dept. of Mines and Resources P.E.I.:—Dept. of Industry and Natural Resources N.S., Alta.:—Depts. of Lands and Forests N.B.:—Dept. of Lands and Mines Que.:—Dept. of Lands and Forests Dept. of Game and Fisheries Dept. of Hydraulic Resources Ont.:—Dept. of Lands and Forests Dept. of Planning and Development, Conservation Branch Ontario Agricultural College, Guelph Man.:—Dept. of Mines and Natural Resources Sask.:—Dept. of Natural Resources Dept. of Agriculture, Conservation and Development Branch B.C.:—Dept. of Lands and Forests, Director of Conservation, Dept. of Recreation and Conservation |
| Privy Council Office Dept. of Secretary of State Dept. of Justice Public Archives | CONSTITUTION | All Provinces except B.C.:—Depts. of Attorney General B.C.:—Provincial Secretary |
| Dominion Bureau of Statistics | CONSUMER PRICE INDEX <i>See also</i> "Cost of Living" | |
| Dept. of Agriculture Economics Division Dept. of Fisheries Information and Educational Service Dept. of Insurance Central Mortgage and Housing Corporation (mortgage-lending activities) Dept. of Secretary of State Companies Division | CO-OPERATIVES (including Credit Unions) | Nfld.:—Dept. of Fisheries and Co-operatives P.E.I.:—Dept. of Agriculture N.S.:—Dept. of Provincial Secretary N.B.:—Dept. of Agriculture Que.:—Dept. of Agriculture Dept. of Trade and Commerce Bureau of Statistics Ont.:—Dept. of Agriculture Co-operation and Markets Branch Dept. of Provincial Secretary Dept. of Insurance Man.:—Dept. of Agriculture and Immigration, Co-operative Services Branch Sask.:—Dept. of Co-operation and Co-operative Development Alta.:—Dept. of Industries and Labour B.C.:—Attorney-General's Dept., Registrar of Companies |
| Dominion Bureau of Statistics (wholesale and retail prices and consumer price index) | COST OF LIVING | Nfld.:—Dept. of Municipal Affairs and Supply Sask.:—Dept. of Labour Alta.:—Dept. of Industries and Labour Provincial Bureau of Statistics B.C.:—Dept. of Industrial Development, Trade and Commerce Bureau of Economics and Statistics |

| Sources for Federal Data | Subject | Sources for Provincial Data |
|--|--|--|
| <p>Canada Council Dept. of Northern Affairs and National Resources Northern Administration and Lands Branch National Parks Branch National Museum of Canada Dept. of Citizenship and Immigration Indian Affairs Branch (Indian handicrafts) Dept. of Trade and Commerce Commodities Branch Dept. of National Health and Welfare Dept. of Veterans Affairs (veterans only) National Gallery of Canada (films, reference library) National Film Board (films, film- strips, photographs) Public Archives</p> | <div>CREATIVE ARTS AND HANDICRAFTS</div> | <p>Nfld.:—Dept. of Education P.E.I.:—Dept. of Provincial Sec- retary, Tourist and Information Branch Dept. of Education, Physical Fitness Division N.S.:—Dept. of Trade and Industry, Handicrafts Division Nova Scotia College of Art Dept. of Education, Physical Fitness Division N.B.:—Dept. of Industry and De- velopment, Handicraft Division The New Brunswick Museum Dept. of Education, Physical Education and Recreation Branch Que.:—Dept. of Agriculture (rural handicrafts), Office of Provincial Secretary Dept. of Trade and Commerce Ont.:—Royal Ontario Museum Dept. of Education, Community Programs Branch Man.:—Dept. of Agriculture and Immigration (handicrafts) Dept. of Health and Public Welfare, Physical Fitness and Recreation Division Sask.:—Dept. of Education, Adult Education Division Fitness and Recreation Division Saskatchewan Arts Board Alta.:—Dept. of Economic Affairs (cultural activities) B.C.:—Provincial Museum (Indian handicrafts) Dept. of Education, Community Programs Branch Dept. of Industrial Development, Trade and Commerce</p> |
| <p>Dept. of Justice Clemency Branch The Penitentiary Commission Dept. of National Health and Welfare Research Division National Film Board (films, photo- graphs) Dominion Bureau of Statistics</p> | <div>CRIME AND DELINQUENCY</div> | <p>All Provinces:—Depts. of Attorney General <i>Additional—</i> Nfld., N.S., Alta.:—Depts. of Public Welfare P.E.I., B.C.:—Depts. of Health and Welfare Que.:—Dept. of Social Welfare and Youth Dept. of Trade and Commerce Bureau of Statistics, Ont.:—Dept. of Reform Insti- tutions Man.:—Dept. of Health and Public Welfare Sask.:—Dept. of Social Welfare</p> |
| <p>See pp. 84-91 of this volume for a list of Crown corporations giving the functions of each and the Cabinet Minister through which each reports to Parliament.</p> | <div>CROWN CORPORATIONS</div> | <p>For information with regard to in- dividual Crown corporations apply as follows: Nfld.:—Dept. of Economic De- velopment P.E.I.:—Dept. of Industry and Natural Resources Ont.:—Dept. of Provincial Secretary Man.:—Treasury Dept. Sask.:—Government Finance Office B.C.:—Attorney-General's Dept.</p> |
| <p>Bank of Canada Dept. of Finance Royal Canadian Mint</p> | <div>CURRENCY</div> | |

| Sources for Federal Data | Subject | Sources for Provincial Data |
|--|--|--|
| Dept. of Agriculture Animal Husbandry Division Dairy Products Division Dairy Technology Research Unit Dept. of Trade and Commerce Agriculture and Fisheries Branch National Film Board (films, photographs in co-operation with the Dept. of Agriculture) Dominion Bureau of Statistics | DAIRYING | Nfld.:—Dept. of Mines and Resources P.E.I., N.S.:—Depts. of Agriculture N.B., Ont., Alta., B.C.:—Depts. of Agriculture, Dairy Branches (also Milk Control Board for Ont. and B.C.) Que.:—Dept. of Agriculture, Dairy Commission Dept. of Trade and Commerce Bureau of Statistics Man.:—Dept. of Agriculture and Immigration, Milk Control Board, Dairy Branch Sask.:—Dept. of Agriculture, Animal Industry Branch Milk Control Board |
| | DEATHS See "Vital Statistics" | |
| Dept. of National Defence Director of Public Relations Directorate of Naval Information Directorate of Public Relations (Army) Directorate of Public Relations (RCAF) Defence Research Board Dept. of Defence Production Canadian Commercial Corporation Defence Construction (1951) Limited Canadian Arsenal Limited Dept. of National Health and Welfare Civil Defence Division Dept. of External Affairs (North Atlantic Treaty Organization) | DEFENCE See also "Civil Defence" | |
| Dept. of Defence Production | DEFENCE PRODUCTION | |
| Dept. of National Health and Welfare | DISABLED PERSONS ALLOWANCES | Nfld.:—The Old Age Assistance Board P.E.I., N.B.:—Director of Disabled Persons Allowances N.S.:—Director of Old Age Assistance Que.:—Quebec Social Allowances Commission Ont.:—Disabled Persons Allowances Branch Man.:—The Old Age Assistance and Blind Persons' Allowances Board Sask.:—Dept. of Social Welfare Director of Public Assistance Alta.:—The Pensions Board B.C.:—The Disabled Persons Allowances Board |

Sources for Federal Data

Subject

Sources for Provincial Data

Bank of Canada
Board of Transport Commissioners
Bureau of Transportation Economics
Central Mortgage and Housing Corporation
Dept. of Citizenship and Immigration
Canadian Citizenship Branch
Dept. of Trade and Commerce
Economics Branch
Dept. of Labour
Economics and Research Branch
Legislation Branch
Dept. of Mines and Technical Surveys
Dept. of Northern Affairs and National Resources (for forest and water resources and resources of Yukon and Northwest Territories)
Administration Branch
Water Resources Branch
Forestry Branch
Northern Administration and Lands Branch (for Eskimos)
Dept. of National Health and Welfare
Research and Statistics Division
Dept. of Agriculture
Economics Division
Dept. of Fisheries
Fisheries Research Board of Canada
Dept. of Defence Production
Economics and Statistics Branch
Dept. of Public Works
Economic Studies Unit
Public Archives (early data)
Dominion Bureau of Statistics

ECONOMIC
AND SOCIAL
RESEARCH

Nfld.:—Dept. of Economic Development
P.E.I.:—Dept. of Industry and Natural Resources
N.S.:—Dept. of Trade and Industry
Nova Scotia Research Foundation
N.B.:—Dept. of Industry and Development
Que.:—Dept. of Trade and Commerce, Economic Research Bureau, Bureau of Statistics
Ont.:—Bureau of Statistics and Research
Man.:—Dept. of Industry and Commerce
Sask.:—Executive Council, Economic Advisory and Planning Board
Executive Council, Industrial Development Office
Government Finance Office
Dept. of Co-operation and Co-operative Development, Research and Statistical Division
Center for Community Studies, University of Saskatchewan
Alta.:—Director of Industrial Development and Economic Research
Dept. of Economic Affairs
B.C.:—Dept. of Industrial Development, Trade and Commerce
Bureau of Economics and Statistics

Canada Council
Canadian Broadcasting Corporation (school broadcasts)
Dept. of Northern Affairs and National Resources
Northern Administration and Lands Branch (N.W.T.)
Dept. of National Health and Welfare
Dept. of Citizenship and Immigration
Canadian Citizenship Branch
Indian Affairs Branch
Dept. of Veterans Affairs (veterans and children of war dead)
Dept. of Labour
Canadian Vocational Training Branch
Dept. of Fisheries
Information and Educational Service
Dept. of Finance (university grants)
National Gallery of Canada (school broadcasts, lectures on art)
Dominion Bureau of Statistics

EDUCATION
See also
"Motion Pictures"
and "Photographic
Material"

All Provinces:—Depts. of Education (technical, visual, audio and all other phases of education)

Chief Electoral Office

ELECTIONS

Nfld.:—Dept. of Provincial Affairs
P.E.I., N.S.:—Depts. of Provincial Secretary
N.B.:—Dept. of Provincial Secretary-Treasurer
Que.:—Chief Returning-Officer
Ont.:—Attorney-General's Dept., Chief Election Officer
Man., B.C.:—Chief Electoral Officers
Sask., Alta.:—Clerks of the Executive Councils

| Sources for Federal Data | Subject | Sources for Provincial Data |
|---|----------------|---|
| <p>Dept. of Northern Affairs and National Resources Water Resources Branch Northwest Territories Power Commission National Film Board (films, filmstrips, photographs) Dominion Bureau of Statistics (central electric stations)</p> | ELECTRIC POWER | <p>Nfld.:—Dept. of Economic Development, Power Commission P.E.I.:—Public Utility Commission N.S., Alta.:—Power Commissions N.B.:—New Brunswick Electric Power Commission Que.:—Hydro-Electric Commission Dept. of Hydraulic Resources Dept. of Agriculture Rural Electrification Bureau Ont.:—The Hydro-Electric Power Commission of Ontario Man.:—Manitoba Hydro Electric Board Dept. of Public Utilities Sask.:—Saskatchewan Power Corporation; Saskatchewan Power Commission B.C.:—Dept. of Lands and Forests British Columbia Power Commission Dept. of Industrial Development, Trade and Commerce Bureau of Economics and Statistics</p> |
| <p>Dept. of Labour Economics and Research Branch National Employment Service Civil Service Commission (opportunities for, and conditions of, employment in the Federal Civil Service) Dept. of Citizenship and Immigration Immigration Branch Dominion Bureau of Statistics</p> | EMPLOYMENT | <p>All Provinces:—Depts. of Agriculture (farm labour) Additional:—Nfld., N.S., Man., Sask.:—Depts. of Labour Que.:—Dept. of Labour, Provincial Employment Bureau Ont.:—Dept. of Labour Bureau of Statistics and Research Alta.:—Dept. of Industries and Labour B.C.:—Dept. of Labour Bureau of Economics and Statistics</p> |
| <p>Dept. of Northern Affairs and National Resources Northern Administration and Lands Branch (education, welfare, handicrafts, livelihood) Arctic Division (Eskimo problems) National Museum of Canada (historical and archaeological information, handicrafts) Canadian Wildlife Service (wildlife in Canada's North) Dept. of National Health and Welfare (health and hospital services) Royal Canadian Mounted Police (field duties)</p> | ESKIMOS | <p>Nfld.:—Dept. of Public Welfare, Division of Northern Labrador Affairs</p> |
| <p>Dept. of Trade and Commerce Canadian Government Exhibition Commission Dept. of Agriculture Information Service National Film Board (films, photographs) National Gallery of Canada (paintings, reproductions, etc.) Dept. of Northern Affairs and National Resources Editorial and Information Division (CNE) Canadian Government Travel Bureau (sportsmen's shows) Dept. of Fisheries Information and Educational Service</p> | EXHIBITIONS | <p>Nfld.:—Dept. of Provincial Affairs N.B.:—Dept. of Agriculture Que.:—Dept. of Agriculture Dept. of Trade and Commerce Ont.:—Most Ontario Departments organize exhibitions Man.:—Dept. of Agriculture and Immigration, Extension Service Dept. of Industry and Commerce Sask.:—Dept. of Agriculture Dept. of Travel and Information Alta.:—Dept. of Economic Affairs Dept. of Agriculture B.C.:—Depts. of Agriculture, Trade and Industry</p> |
| <p>Dept. of Mines and Technical Surveys Explosives Division</p> | EXPLOSIVES | <p>B.C.:—Dept. of Mines</p> |

| Sources for Federal Data | Subject | Sources for Provincial Data |
|---|--------------------------------|---|
| Dept. of External Affairs Information Division Dept. of Trade and Commerce International Economic and Technical Co-operation Division (Colombo Plan) Dept. of Citizenship and Immigration Editorial and Information Division National Film Board (films) | EXTERNAL AFFAIRS | |
| Dept. of National Health and Welfare | FAMILY ALLOWANCES | |
| Dept. of Agriculture Field Husbandry Division Forage Crops Division Plant Products Division Dept. of Trade and Commerce Agriculture and Fisheries Branch National Film Board (films, photographs) Dominion Bureau of Statistics | FIELD CROPS | Nfld.:—Dept. of Mines and Resources P.E.I., N.S., N.B.:—Depts. of Agriculture Que.:—Dept. of Agriculture Dept. of Trade and Commerce Bureau of Statistics Ont.:—Dept. of Agriculture, Crops, Seeds and Weeds Branch Man.:—Dept. of Agriculture and Immigration Sask.:—Dept. of Agriculture, Plant Industry Branch Alta., B.C.:—Depts. of Agriculture, Field Crop Branches |
| Dept. of Finance Bank of Canada Dominion Bureau of Statistics | FINANCE See also "Taxation" | Nfld., B.C.:—Depts. of Finance P.E.I., Sask.:—Provincial Treasurer N.S.:—Dept. of Provincial Treasurer N.B.:—Dept. of Provincial Secretary-Treasurer Que.:—Dept. of Finance Dept. of Trade and Commerce Bureau of Statistics Ont.:—Provincial Treasurer's Dept. Man., Alta.:—Provincial Treasury Depts. |
| Dept. of Public Works Fire Prevention Branch (fire loss statistics) Dept. of Northern Affairs and National Resources Forestry Branch (federal interests) National Parks Branch Board of Transport Commissioners (forest-fire protection along railway lines) National Film Board (films, filmstrips, photographs, in relation to government prevention and conservation programs) National Research Council Division of Building Research, Fire Research Section | FIRE PREVENTION | All Provinces:—Provincial Fire Marshals (for urban and rural fire losses) Additional:—Nfld.:—Dept. of Mines and Resources N.S., Alta., B.C.:—Depts. of Lands and Forests N.B.:—Dept. of Lands and Mines Que.:—Dept. of Lands and Forests Forest Protection Service Dept. of Public Works, Fire Commissioner Ont.:—Dept. of Lands and Forests, Forest Protection Division Man.:—Dept. of Mines and Natural Resources Dept. of Labour, Fire Commissioner Sask.:—Dept. of Natural Resources Dept. of Labour, Fire Commissioner |

| Sources for Federal Data | Subject | Sources for Provincial Data |
|---|---|---|
| Dept. of Fisheries Information and Educational Service Fisheries Research Board of Canada Dept. of Trade and Commerce Agriculture and Fisheries Branch National Film Board (films, filmstrips, photographs) Dept. of Finance Fisherman's Improvement Loans Unemployment Insurance Commission (unemployment insurance for fishermen) | FISHERIES | Nfld.:—Dept. of Fisheries and Co-operatives P.E.I.:—Dept. of Industry and Natural Resources N.S.:—Dept. of Trade and Industry Fisheries Division N.B.:—Dept. of Industry and Development, Fisheries Branch Que.:—Dept. of Game and Fisheries Dept. of Trade and Commerce, Bureau of Statistics Ont.:—Dept. of Lands and Forests Fish and Wildlife Division Man.:—Dept. of Mines and Natural Resources Game and Fisheries Branch Sask.:—Dept. of Natural Resources, Fisheries Branch Saskatchewan Fish Marketing Service Alta.:—Dept. of Lands and Forests, Fish and Game Branch B.C.:—Dept. of Recreation and Conservation |
| | FOOD AND DRUGS See "Standards" and "Nutrition" | |
| | FOREIGN AFFAIRS See "External Affairs" | |
| Bank of Canada | FOREIGN EXCHANGE | |
| Dept. of Northern Affairs and National Resources Forestry Branch federal interests Dept. of Agriculture Forest Biology Division Dept. of Trade and Commerce Commodities Branch National Film Board (films, filmstrips, photographs) Dominion Bureau of Statistics | FOREST RESOURCES | Nfld.:—Dept. of Mines and Resources P.E.I.:—Dept. of Industry and Natural Resources N.S., Que., Ont., Alta., B.C.:—Depts. of Lands and Forests N.B.:—Dept. of Lands and Mines Man.:—Dept. of Mines and Natural Resources, Forestry Branch Sask.:—Dept. of Natural Resources, Forestry Branch |
| | FRUIT See "Horticulture" | |
| | FUEL See "Coal", "Oil and Natural Gas", "Forest Resources" | |

| Sources for Federal Data | Subject | Sources for Provincial Data |
|--|--|--|
| <p>Dept. of Agriculture Marketing Service (fur grading) Experimental Farms Service (ranch fur production) Dept. of Trade and Commerce Agriculture and Fisheries Branch Dominion Bureau of Statistics</p> | <p>FUR FARMING See also "Trapping"</p> | <p>Nfld.:—Dept. of Mines and Resources Dept. of Economic Development P.E.I., N.B., Alta., B.C.:—Depts. of Agriculture N.S., Ont.:—Depts. of Lands and Forests Que.:—Dept. of Agriculture Dept. of Trade and Commerce Bureau of Statistics Man.:—Dept. of Mines and Natural Resources, Game and Fisheries Branch Sask.:—Dept. of Natural Resources Saskatchewan Fur Marketing Service</p> |
| <p>Dept. of Mines and Technical Surveys Geographical Branch Canadian Board on Geographical Names Dept. of Agriculture Field Husbandry Division (soil surveys) Dept. of Fisheries Fisheries Research Board of Canada (oceanography) National Film Board (films, filmstrips) Public Archives</p> | <p>GEOGRAPHY</p> | <p>Nfld.:—Dept. of Mines and Resources P.E.I.:—Travel Bureau N.S.:—Dept. of Mines N.B.:—Dept. of Lands and Mines Que., B.C.:—Depts. of Lands and Forests Man.:—Dept. of Mines and Natural Resources Sask.:—Dept. of Natural Resources Dept. of Travel and Information</p> |
| <p>Dept. of Mines and Technical Surveys Geological Survey of Canada</p> | <p>GEOLOGY</p> | <p>Nfld.:—Dept. of Mines and Resources N.S., B.C.:—Depts. of Mines N.B.:—Dept. of Lands and Mines Que.:—Dept. of Mines Geological Surveys Branch Ont.:—Dept. of Mines Geological Branch Man.:—Dept. of Mines and Natural Resources, Mines Branch Sask.:—Dept. of Mineral Resources Alta.:—Dept. of Mines and Minerals</p> |
| <p>Chief Electoral Office (Electoral Act and Voters Lists) Dept. of Secretary of State (federal-provincial channel of communication) Dept. of Citizenship and Immigration Canadian Citizenship Branch Dept. of Northern Affairs and National Resources (for Yukon and Northwest Territories) Public Archives (early official records) Privy Council Office (appointments, orders in council, statutory orders and regulations)</p> | <p>GOVERNMENT For Senate of Canada, House of Commons and Library of Parliament see "Parliament"</p> | <p>Nfld.:—Dept. of Provincial Affairs P.E.I., N.S., Ont., Man., Sask., Alta., B.C.:—Depts. of Provincial Secretary N.B.:—Dept. of Provincial Secretary-Treasurer Que.:—Office of Provincial Secretary</p> |
| <p>Dept. of National Health and Welfare Dept. of Northern Affairs and National Resources (for N.W.T.) National Film Board (films, filmstrips, photographs) Dominion Bureau of Statistics</p> | <p>HEALTH For Health of Veterans see "Veterans Affairs"</p> | <p>Nfld., Que., Ont.:—Depts. of Health P.E.I.:—Dept. of Health and Welfare N.S., Sask., Alta.:—Depts. of Public Health N.B.:—Dept. of Health and Social Services Man.:—Dept. of Health and Public Welfare B.C.:—Dept. of Health and Welfare (general) Dept. of Provincial Secretary (mental hospitals) British Columbia Hospital Insurance Commission</p> |
| | <p>HIGHWAYS See "Transportation"</p> | |

| Sources for Federal Data | Subject | Sources for Provincial Data |
|--|--------------------------------------|---|
| Dept. of Northern Affairs and National Resources National Parks Branch (historic sites and monuments) Dept. of National Defence Director of Public Relations Naval Historian Directorate of History (Army) Air Historian Public Archives National Film Board (films, film-strips) Dominion Bureau of Statistics | HISTORY | Nfld.:—Legislative Library Memorial University Gosling Memorial Library P.E.I.:—Travel Bureau N.S.:—Public Archives N.B.:—Legislative Library Que.:—Office of Provincial Secretary Provincial Archives Provincial Library Ont.:—Legislative Library Bureau of Statistics and Research Provincial Archivist Man.:—Provincial Library and Archives Sask.:—Legislative Library, Archives Division Alta.:—Archives, Provincial Library Dept. of Economic Affairs Publicity Bureau B.C.:—Dept. of Education Provincial Archivist |
| Dept. of Agriculture Marketing Service, Fruit and Vegetable Division Experimental Farms Service, Horticulture Division | HORTICULTURE | Nfld.:—Dept. of Mines and Resources P.E.I.:—Dept. of Agriculture N.S., N.B., Alta., B.C.:—Depts. of Agriculture, Horticultural Branches Que.:—Dept. of Agriculture, Fruit Branch Ont.:—Dept. of Agriculture, Agriculture and Horticulture Branches Man.:—Dept. of Agriculture and Immigration Sask.:—Dept. of Agriculture, Plant Industry Branch |
| Dept. of National Health and Welfare Dept. of Veterans Affairs (veterans' hospitals) Dept. of National Defence (armed forces hospitals) Dominion Bureau of Statistics | HOSPITALS | Nfld., Que.:—Depts. of Health P.E.I.:—Dept. of Health and Welfare N.S., Sask., Alta.:—Depts. of Public Health N.B.:—Dept. of Health and Social Services Ont.:—Hospital Services Commission of Ontario Man.:—Dept. of Health and Public Welfare B.C.:—Dept. of Health and Welfare (general) Dept. of Provincial Secretary (mental hospitals) British Columbia Hospital Insurance Commission |
| | HOUSE OF COMMONS See "Parliament" | |
| Central Mortgage and Housing Corporation (long-term mortgage loans for new farm houses; National Housing Act financing; building standards; house designs; mortgage lending activities; insurance of loans) | HOUSING | |

| Sources for Federal Data | Subject | Sources for Provincial Data |
|--|---|---|
| Dept. of Citizenship and Immigration Canadian Citizenship Branch Immigration Branch Dept. of Labour Special Services Branch Dept. of National Health and Welfare Quarantine, Immigration Medical and Sick Mariners Division National Film Board (films, photographs) Dominion Bureau of Statistics | IMMIGRATION | P.E.I.:—Dept. of Industry and Natural Resources Ont.:—Dept. of Planning and Development Bureau of Statistics and Research Man.:—Dept. of Agriculture and Immigration Sask.:—Dept. of Social Welfare Alta.:—Dept. of Economic Affairs |
| | INCOME TAX See "Taxation" | |
| Dept. of Citizenship and Immigration Canadian Citizenship Branch Indian Affairs Branch Dept. of Northern Affairs and National Resources National Museum of Canada (historical and archaeological information) Dept. of National Health and Welfare (health and hospital services) | INDIANS | Nfld.:—Dept. of Public Welfare (Indians in Labrador) Que.:—Dept. of Fish and Game (fur preserves) B.C.:—Dept. of Labour, Provincial Advisory Committee on Indian Affairs |
| National Industrial Design Council National Gallery of Canada (films, reference library, photographic library, exhibitions) | INDUSTRIAL DESIGN | |
| | INDUSTRIAL DEVELOPMENT See "Manufacturing" | |
| Dept. of Insurance (Dominion, British and foreign companies, Federal Civil Service insurance) Dept. of Labour Annuities Branch Dept. of Veterans Affairs Veterans Insurance Branch Dept. of Trade and Commerce Export Credits Insurance Corporation Central Mortgage and Housing Corporation (insures loans made under National Housing Act 1954) Dominion Bureau of Statistics (summary statistics of all types of insurance) | INSURANCE— LIFE, FIRE, ETC. For Unemployment Insurance see "Labour" | Nfld.:—Dept. of Provincial Affairs P.E.I., N.S., N.B., Man., Alta., B.C.:—Superintendents of Insurance Que.:—Finance Dept., Insurance Branch Ont.:—Dept. of Insurance Sask.:—Superintendent of Insurance, Government Insurance Office |
| Dept. of Mines and Technical Surveys Dept. of Trade and Commerce Commodities Branch Dominion Bureau of Statistics | IRON AND STEEL | Nfld.:—Dept. of Mines and Resources N.S.:—Dept. of Mines Research Foundation N.B.:—Dept. of Lands and Mines Que.:—Dept. of Trade and Commerce, Bureau of Statistics Dept. of Mines Ont.:—Dept. of Planning and Development, Trade and Industry Branch Bureau of Statistics and Research Man.:—Dept. of Industry and Commerce Sask.:—Dept. of Mineral Resources Alta.:—Dept. of Mines and Minerals Dept. of Economic Affairs B.C.:—Dept. of Mines Bureau of Economics and Statistics |

| Sources for Federal Data | Subject | Sources for Provincial Data |
|---|--|--|
| Dept. of Justice Dominion Bureau of Statistics | JUSTICE | All Provinces:—Depts. of Attorney General |
| Dept. of Labour Information Branch Labour Gazette Branch Government Annuities Branch Legislation Branch Economics and Research Branch Canada Labour Relations Board Canadian Vocational Training Branch Civilian Rehabilitation Branch Industrial Relations Branch (conciliation of labour disputes, payment of fair wages on government contracts, promotion of labour-management production committees, fair employment practices) International Labour Organization Branch National Advisory Council on Manpower Special Services Branch Women's Bureau Unemployment Insurance Commission National Employment Service Dept. of National Health and Welfare (occupational health) Dept. of Secretary of State Companies Division Dominion Bureau of Statistics | LABOUR See also "Workmen's Compensation" | Nfld., P.E.I., N.S., N.B., Man., Sask.:—Depts. of Labour Que., Ont., B.C.:—Depts. of Labour Provincial Bureaus of Statistics Alta.:—Dept. of Industries and Labour Provincial Bureau of Statistics |
| Dept. of Northern Affairs and National Resources Northern Administration and Lands Branch (Yukon and Northwest Territories) Dept. of Mines and Technical Surveys Surveyor General of Canada Dept. of Veterans Affairs Soldier Settlement and Veterans' Land Act Branch Dept. of Citizenship and Immigration Immigration Branch (for land settlement) Dept. of Transport Lands Branch | LANDS AND LAND SETTLEMENT | Nfld.:—Dept. of Mines and Resources P.E.I.:—Commissioner of Public Lands N.S.:—Dept. of Agriculture, Land Settlement Board N.B.:—Dept. of Lands and Mines Que.:—Dept. of Lands and Forests Dept. of Colonization Ont., Alta.:—Depts. of Lands and Forests Man.:—Dept. of Mines and Natural Resources, Lands Branch Sask.:—Dept. of Agriculture, Lands Branch; Attorney General, Land Titles B.C.:—Dept. of Agriculture, Land Clearing; Dept. of Lands and Forests |
| Royal Canadian Mounted Police <i>(Enforces Federal Statutes in all parts of Canada; also carries out, on behalf of Attorneys General and under contract, enforcement of the Criminal Code and Provincial Statutes in all provinces except Quebec and Ontario; is the only law-enforcement body in the Yukon and Northwest Territories and assists in the welfare of Eskimos and Indians in these territories.)</i> | LAW ENFORCEMENT | All Provinces:—Depts. of Attorney General |

| Sources for Federal Data | Subject | Sources for Provincial Data |
|--|---|---|
| <p>Clerk of the Senate of Canada Clerk of the House of Commons Privy Council Office Dept. of Justice Dept. of Northern Affairs and National Resources (for Yukon and Northwest Territories) Dept. of Public Printing and Stationery For Acts administered by individual Federal Depts., see pp. 91-95 of this volume.</p> | <p>LEGISLATION For Statutory Orders and Regulations see "Government"</p> | <p>All Provinces except Man. and B.C.:—Depts. of Attorney General Man.:—Legislative Council B.C.:—Dept. of Provincial Secretary</p> |
| | <p>LIBRARIES See "Bibliography: Books"</p> | |
| <p>Chief Electoral Office (for local referendum under Canada Temperance Act) Dept. of Northern Affairs and National Resources Northern Administration and Lands Branch (Yukon and Northwest Territories) Dept. of Secretary of State Special Division Dominion Bureau of Statistics</p> | <p>LIQUOR CONTROL</p> | <p>Nfld.:—Dept. of Finance P.E.I.:—Temperance Commission N.S., Que.:—Liquor Commissions N.B., Ont., Alta., B.C.:—Liquor Control Boards Man.:—Liquor Control Commission Sask.:—Liquor Board</p> |
| <p>Dept. of Agriculture Livestock Products Division (for marketing data) Poultry Products Division (for marketing data) Livestock and Poultry Division (for breeding programs and testing data) Health of Animals Division (for administration of disease control regulations, meat inspection, and research in animal diseases) Animal Husbandry Division (for general information) Dept. of Trade and Commerce Agriculture and Fisheries Branch National Film Board (films, photographs, in relation to Dept. of Agriculture) Dominion Bureau of Statistics</p> | <p>LIVESTOCK</p> | <p>Nfld.:—Dept. of Mines and Resources P.E.I., N.B., Ont.:—Depts. of Agriculture, Livestock Branches N.S.:—Dept. of Agriculture, Animal Husbandry Branch Que.:—Dept. of Agriculture, Animal Husbandry Branch Dept. of Trade and Commerce Bureau of Statistics Man.:—Dept. of Agriculture and Immigration, Livestock Branch Sask.:—Dept. of Agriculture, Animal Industry Branch Alta., B.C.:—Provincial Bureaus of Statistics Depts. of Agriculture, Livestock Branches</p> |
| <p>Dept. of Northern Affairs and National Resources Forestry Branch (federal interests) Dept. of Trade and Commerce Commodities Branch National Film Board (films, filmstrips, photographs, in relation to departmental conservation and development programs) Dominion Bureau of Statistics</p> | <p>LUMBERING</p> | <p>Nfld.:—Dept. of Mines and Resources P.E.I.:—Dept. of Industry and Natural Resources N.S., Que., Ont., Alta.:—Depts. of Lands and Forests N.B.:—Dept. of Lands and Mines Man.:—Dept. of Mines and Natural Resources, Forestry Branch Sask.:—Dept. of Natural Resources, Forestry Branch Industrial Development Office Saskatchewan Timber Board B.C.:—Dept. of Lands and Forests Dept. of Industrial Development, Trade and Commerce Bureau of Economics and Statistics</p> |

| Sources for Federal Data | Subject | Sources for Provincial Data |
|---|---|---|
| Dept. of Secretary of State Companies Division Dept. of Trade and Commerce Commodities Branch Industrial Development Branch Dept. of Defence Production (for defence items) Bank of Canada Industrial Development Bank National Research Council Canadian Patents and Development Limited (utilization of new scientific processes) National Film Board (films, filmstrips and photographs) Dominion Bureau of Statistics | MANUFACTURING See also "Crown Corporations" | Nfld.:—Dept. of Economic Development P.E.I.:—Dept. of Industry and Natural Resources N.S., B.C.:—Depts. of Trade and Industry N.B.:—Dept. of Industry and Development Que.:—Dept. of Trade and Commerce, Bureau of Statistics Ont.:—Dept. of Planning and Development, Trade and Industry Branch Bureau of Statistics Man.:—Dept. of Industry and Commerce Sask.:—Economic Advisory and Planning Board Industrial Development Office Government Finance Office Dept. of Co-operation and Co-operative Development Trade and Business Information Services Alta.:—Dept. of Economic Affairs Bureau of Statistics B.C.:—Bureau of Economics and Statistics |
| Dept. of Mines and Technical Surveys Geographical Branch Surveys and Mapping Branch (geological, topographical and general maps; aeronautical and marine navigation charts) Geological Survey of Canada Dept. of Agriculture (soil survey and economic survey maps) Public Archives (maps relating to history and cartography) Dept. of Fisheries Information and Educational Service (fisheries maps) Dept. of Transport (meteorological maps) National Research Council Division of Building Research Climatological Atlas of Canada Dominion Bureau of Statistics (economic and census maps) | MAPS AND CHARTS | Nfld.:—Dept. of Mines and Resources P.E.I.:—Dept. of Public Works and Highways N.S.:—Dept. of Mines Research Foundation N.B.:—Dept. of Lands and Mines Que.:—Dept. of Lands and Forests Dept. of Mines Dept. of Trade and Commerce Cartography Service Dept. of Agriculture Ont.:—Dept. of Lands and Forests Dept. of Mines Man.:—Dept. of Mines and Natural Resources, Surveys Branch Sask.:—Dept. of Natural Resources Dept. of Travel and Information Alta., B.C.:—Depts. of Lands and Forests. |
| | MARRIAGES See "Vital Statistics" | |
| Dept. of Agriculture Economics Division (Co-operatives) Dominion Bureau of Statistics | MERCHANDISING | Man.:—Dept. of Industry and Commerce Sask.:—Industrial Development Office Alta.:—Dept. of Industries and Labour B.C.:—Dept. of Industrial Development, Trade and Commerce Bureau of Economics and Statistics |
| Dept. of Mines and Technical Surveys Mines Branch Geological Survey of Canada Dept. of Trade and Commerce Commodities Branch Dominion Bureau of Statistics (for production data) | METALS <i>(other than Iron and Steel)</i> | Nfld.:—Dept. of Mines and Resources N.S., Que., Ont.:—Depts. of Mines N.B.:—Dept. of Lands and Mines Man.:—Dept. of Mines and Natural Resources, Mines Branch Sask.:—Dept. of Mineral Resources Alta.:—Dept. of Mines and Minerals B.C.:—Bureau of Economics and Statistics Dept. of Mines |

| Sources for Federal Data | Subject | Sources for Provincial Data |
|--|------------------------------|--|
| | METEOROLOGY See "Weather" | |
| Dept. of Mines and Technical Surveys Dept. of Northern Affairs and National Resources (for Yukon and Northwest Territories) Dominion Bureau of Statistics (for production data) | MINING AND MINERALS | Nfld.:—Dept. of Mines and Resources N.S., Que., Ont., B.C.:—Depts. of Mines N.B.:—Dept. of Lands and Mines Man.:—Dept. of Mines and Natural Resources, Mines Branch Sask.:—Dept. of Mineral Resources Alta.:—Dept. of Mines and Minerals |
| National Film Board (<i>Produces documentary films, news-reels and short subjects for theatrical, non-theatrical and television distribution; film-strips and photographs for informational, educational and archival purposes; other visual materials devoted to the interpretation of the Canadian scene to audiences both at home and abroad; and maintains a large film preview library for the benefit of government departments and other official bodies.</i>) Dept. of National Health and Welfare Information Services Division National Gallery of Canada (<i>maintains a library of films on art.</i>) | MOTION PICTURES | Nfld., P.E.I., N.B., Ont.:—Buy such films but do not produce them N.S., Que., Alta., B.C.:—Produce educational or informational films Man.:—Dept. of Industry and Commerce Sask.:—Dept. of Travel and Information Dept. of Education, Visual Education Branch Dept. of Labour (film censor) Alta.:—Dept. of Economic Affairs, Photographic Branch B.C.:—Dept. of Trade and Industry Photographic Branch <i>All provinces have Motion Picture Censorship Boards. Details may be obtained by application to the province concerned: Depts. of Education and Travel, Provincial Censorship Boards and Regional National Film Board Offices.</i> |
| Dominion Bureau of Statistics Public Finance and Transportation Division | MUNICIPAL AFFAIRS | Nfld.:—Dept. of Municipal Affairs and Supply P.E.I.:—Dept. of Industry and Natural Resources N.S., N.B., Que., Ont., Sask., Alta., B.C.:—Depts. of Municipal Affairs Man.:—Dept. of Municipal Commissioner |
| National Gallery of Canada (paintings, sculpture, etc.) Public Archives (and Canadian War Museum) Laurier House, Ottawa (historical) Dept. of Northern Affairs and National Resources National Parks Branch National Museum of Canada Historic Parks Museums | MUSEUMS | Nfld.:—Dept. of Provincial Affairs N.S.:—Nova Scotia Museum of Fine Arts, Public Archives of Nova Scotia, Provincial Museum of Nova Scotia, Halifax N.B.:—New Brunswick Museum, Saint John Que.:—The Archives, Musée de la Province de Québec, Quebec Commercial and Industrial Museum of Montreal Ont.:—Royal Ontario Museum (including Archaeology, Geology, Mineralogy, Palæontology and Zoology) and Ontario Archives, Toronto Man.:—Manitoba Museum, Winnipeg Sask.:—Dept. of Natural Resources' Provincial Museum B.C.:—Provincial Museum of Natural History and Anthropology, Provincial Archives (including Helmcken House), Victoria <i>Does not include provincial universities of Sask., Alta. and B.C.</i> |

| Sources for Federal Data | Subject | Sources for Provincial Data |
|--|---|--|
| Dominion Bureau of Statistics | NATIONAL ACCOUNTS | |
| Dept. of Citizenship and Immigration Canadian Citizenship Registration Branch | NATURALIZATION See also "Population" | |
| Dept. of Public Works (acquisition, construction and improvement of harbour and river works, including construction and oper- ation of graving docks and marine engineering generally). Harbours and Rivers Engineer- ing Branch and Information Services | NAVIGATION | |
| Dept. of Transport Marine and Canal Services (aids to marine navigation) Telecommunications Branch (radio aids to navigation) | | |
| National Research Council Radio and Electrical Engineering Division (applications of radar to navigation) Division of Mechanical Engineer- ing (model testing basin and Seaway models) | | |
| Dept. of Mines and Technical Surveys Hydrographic Service Legal Surveys and Aeronautical Charts Division | | |
| National Harbours Board Canadian Maritime Commission | | |
| Dept. of National Health and Welfare Nutrition Division Dept. of Agriculture Consumer Section Dept. of Fisheries Inspection and Consumer Service | NUTRITION | Nfld., Que., Ont.:—Depts. of Health P.E.I., B.C.:—Depts. of Health and Welfare N.S.:—Dept. of Public Health N.B.:—Dept. of Health and Social Services Man.:—Dept. of Health and Public Welfare Sask.:—Dept. of Public Health, Nutrition Division Alta.:—Dept. of Agriculture, Nutri- tionist |
| | OCCUPATIONAL INFORMATION See "Employment" | |
| Dept. of Mines and Technical Surveys Geological Survey of Canada Mines Branch Dept. of Northern Affairs and National Resources (for Yukon and Northwest Territories) Dept. of Defence Production Northern Ontario Pipe Line Crown Corporation Dept. of Trade and Commerce Standards Branch Dominion Bureau of Statistics | OIL AND NATURAL GAS | Nfld.:—Dept. of Mines and Re- sources N.S., Ont., B.C.:—Depts. of Mines N.B.:—Dept. of Lands and Mines Man.:—Dept. of Mines and Natural Resources, Mines Branch Sask.:—Dept. of Mineral Resources Alta.:—Dept. of Mines and Minerals Bureau of Statistics |

| Sources for Federal Data | Subject | Sources for Provincial Data |
|--|---|--|
| Dept. of National Health and Welfare Dept. of Northern Affairs and National Resources (Yukon and Northwest Territories) | OLD AGE ASSISTANCE | Nfld., N.S., B.C.:—Old Age Assistance Boards P.E.I., Ont.:—Director of Old Age Assistance N.B.:—The Old Age and Blind Assistance Board Que.:—Quebec Social Allowances Commission Man.:—The Old Age Assistance and Blind Persons' Allowances Board Sask.:—Dept. of Social Welfare, Public Assistance Division Alta.:—The Pensions Board |
| Dept. of National Health and Welfare | OLD AGE SECURITY PENSIONS | |
| Dept. of Northern Affairs and National Resources National Parks Branch National Film Board (films, photographs) Federal District Commission | PARKS | Nfld.:—Dept. of Mines and Resources N.S., Ont., Alta.:—Depts. of Lands and Forests N.B.:—Dept. of Lands and Mines Que.:—Dept. of Game and Fisheries Man.:—Dept. of Mines and Natural Resources, Forestry Branch Sask.:—Dept. of Travel and Information B.C.:—Dept. of Recreation and Conservation |
| The Senate The House of Commons Library of Parliament Privy Council Office | PARLIAMENT | Nfld.:—Dept. of Provincial Affairs P.E.I., N.B., Man., Sask., Alta., B.C.:—Legislative Assemblies N.S., Ont.:—Houses of Assembly Que.:—Legislative Council Legislative Assembly |
| Dept. of Secretary of State Patent and Copyright Office Trade Marks Office National Library (handles all copyright books) | PATENTS, COPYRIGHTS AND TRADE MARKS | |
| Dept. of Mines and Technical Surveys The National Air Photographic Library National Film Board Public Archives (historical) | PHOTOGRAPHIC MATERIAL See also "Motion Pictures" and "Tourist Trade" | Photographs are available from many provincial government departments in all provinces. |

| Sources for Federal Data | Subject | Sources for Provincial Data |
|--|---------------------------------|--|
| <p>Dominion Bureau of Statistics (for all census population statistics)</p> <p>Dept. of Northern Affairs and National Resources</p> <p>Northern Administration and Lands Branch (for Eskimos)</p> <p>Dept. of Citizenship and Immigration</p> <p>Canadian Citizenship Branch</p> <p>Immigration Branch</p> <p>Indian Affairs Branch (for Indians)</p> <p>Public Archives (early census and settlement records)</p> | POPULATION | <p>Nfld.:—Dept. of Health</p> <p>P.E.I.:—Travel Bureau</p> <p>N.S.:—Dept. of Public Health, Vital Statistics Branch</p> <p>N.B.:—Dept. of Health and Social Services, Vital Statistics Branch</p> <p>Que.:—Dept. of Health, Vital Statistics Branch</p> <p>Dept. of Trade and Commerce</p> <p>Bureau of Statistics</p> <p>Ont.:—Bureau of Statistics and Research</p> <p>Man.:—Dept. of Industry and Commerce</p> <p>Dept. of Municipal Affairs</p> <p>Sask.:—Dept. of Public Health</p> <p>Vital Statistics Branch</p> <p>Legislative Library</p> <p>Alta.:—Dept. of Industries and Labour, Provincial Statistician</p> <p>B.C.:—Dept. of Health and Welfare</p> <p>Vital Statistics</p> <p>Dept. of Industrial Development, Trade and Commerce, Bureau of Economics and Statistics</p> |
| <p>Post Office Department</p> <p>Administration Branch (general postal information, postage rates, both domestic and foreign, etc.)</p> <p>Transportation Branch (air, land and railway mail services)</p> <p>Financial Branch (information regarding money orders, savings bank, philatelic services, etc.)</p> <p>Operations Branch (information regarding postal service to the public and hours of service)</p> <p>Personnel Branch (personnel, training, employee services)</p> | POST OFFICE | |
| <p>Dept. of Agriculture</p> <p>Poultry Husbandry Division, Experimental Farms Service (for general information)</p> <p>Poultry Products Division (for marketing data)</p> <p>Livestock and Poultry Division (breeding programs, hatchery regulations, etc.)</p> <p>Health of Animals Division (for poultry diseases)</p> <p>Dept. of Trade and Commerce</p> <p>Agriculture and Fisheries Branch</p> <p>Dominion Bureau of Statistics</p> | POULTRY | <p>Nfld.:—Dept. of Mines and Resources</p> <p>P.E.I., N.S.:—Depts. of Agriculture</p> <p>N.B., Alta., B.C.:—Depts. of Agriculture, Poultry Branches</p> <p>Que.:—Dept. of Agriculture</p> <p>Poultry Division</p> <p>Dept. of Trade and Commerce</p> <p>Bureau of Statistics</p> <p>Ont.:—Ontario Agricultural College (Guelph), Poultry Division</p> <p>Man.:—Dept. of Agriculture and Immigration</p> <p>Sask.:—Dept. of Agriculture</p> <p>Animal Industry Branch</p> |
| | POWER | |
| | See "Electric Power" | |
| <p>Dept. of Secretary of State</p> <p>Special Division</p> | PRECEDENCE AND CEREMONIAL | |
| <p>Dept. of Agriculture</p> <p>Marketing Service (prices of farm products)</p> <p>Agricultural Prices Support Board</p> <p>Dept. of Fisheries</p> <p>Fisheries Prices Support Board</p> <p>Dominion Bureau of Statistics</p> | PRICES | <p>Man.:—Dept. of Industry and Commerce</p> <p>Sask.:—Economic Advisory and Planning Board</p> <p>B.C.:—Dept. of Industrial Development, Trade and Commerce, Bureau of Economics and Statistics</p> |

Sources for Federal Data

Subject

Sources for Provincial Data

Dept. of Secretary of State
Registration Division
Public Archives (early records)

PUBLIC DOCUMENTS
(Commissions of Appointment,
Proclamations,
Federal Land Grants, etc.)

Ont.:—Dept. of Provincial Secretary

PUBLIC HEALTH
See "Health"

Dominion Bureau of Statistics

PUBLIC UTILITIES
See also
"Electric Power"

Nfld.:—Public Utilities Board
P.E.I., B.C.:—Public Utilities Commissions
N.S., N.B.:—Boards of Commissioners of Public Utilities
Que.:—Public Service Board
Ont.:—Ontario Municipal Board
The Hydro-Electric Power Commission of Ontario
Ontario Telephone Authority
Ontario Fuel Board.
Man.:—Dept. of Public Utilities
Sask.:—Government Finance Office
Saskatchewan Government Telephones
Saskatchewan Power Corporation
Alta.:—Board of Public Utilities Commissioners
Natural Gas Utilities Board

PUBLIC WELFARE
See "Welfare"

Dept. of Labour
Industrial Relations Branch (fair wages)
Dept. of Public Works
Information Services
Dept. of Transport
Marine, Canal and Air Services
St. Lawrence Seaway Authority
(St. Lawrence Seaway and Power Project)

PUBLIC WORKS

All Provinces except N.S.:—Depts. of Public Works
N.S.:—Dept. of Highways and Public Works
Ont.:—The Hydro-Electric Power Commission of Ontario (St. Lawrence Power Project)

Dept. of Transport
Telecommunications Branch (all matters affecting licences and facilities)
Canadian Broadcasting Corporation (national broadcasting in Canada, including radio and television, regulations for control of programs, international short-wave service)
National Research Council
Radio and Electrical Engineering Division (radio science and its application to industry)

RADIO

RAILWAYS
See
"Transportation"

| Sources for Federal Data | Subject | Sources for Provincial Data |
|--|---|--|
| Dept. of Northern Affairs and National Resources Water Resources Branch (for Y.T. and N.W.T. and federal interests in the provinces) Central Mortgage and Housing Corporation | <div>RECON- STRUCTION AND DEVELOPMENT</div> | Nfld.:—Dept. of Economic Development P.E.I.:—Dept. of Industry and Natural Resources N.S.:—Depts. of Municipal Affairs, and Trade and Industry N.B.:—Dept. of Industry and Development Que.:—Depts. of Lands and Forests, Labour, Roads, Trade and Commerce, Social Welfare and Youth Ont.:—Dept. of Planning and Development Man.:—Dept. of Industry and Commerce Sask.:—Dept. of Social Welfare, Rehabilitation Division Alta.:—Dept. of Economic Affairs B.C.:—Dept. of Industrial Development, Trade and Commerce Bureau of Economics and Statistics |
| Dept. of Northern Affairs and National Resources National Parks Branch Canadian Government Travel Bureau Northern Administration and Lands Branch (for Y.T. and N.W.T.) Dept. of Citizenship and Immigration Canadian Citizenship Branch Indian Affairs Branch (for Indians) Dept. of National Health and Welfare National Film Board (films, filmstrips, photographs in connection with the Dept. of National Health and Welfare) | <div>RECREATION See also "Health"</div> | P.E.I., N.S., N.B., Que., Ont., Sask.:—Depts. of Education Man.:—Dept. of Health and Public Welfare Alta.:—Dept. of Economic Affairs, Community Recreation Branch B.C.:—Dept. of Recreation and Conservation |
| Dept. of Veterans Affairs Dept. of Labour Civilian Rehabilitation Branch Dept. of National Health and Welfare Dept. of Citizenship and Immigration Indian Affairs Branch National Film Board (films) | <div>REHABILITATION</div> | P.E.I.:—Dept. of Education (Co-ordinator, Rehabilitation Branch) N.S.:—Dept. of Public Health (Provincial Rehabilitation Co-ordinator) N.B.:—Dept. of Health and Social Services (Provincial Co-ordinator of Rehabilitation) Que.:—Dept. of Social Welfare and Youth Dept. of Labour Man.:—Dept. of Health and Public Welfare (Provincial Co-ordinator of Rehabilitation Services) Sask.:—Dept. of Social Welfare, Rehabilitation Division Alta.:—Dept. of Public Welfare (Co-ordinator of Rehabilitation of Disabled Persons) B.C.:—Dept. of Health and Welfare (Rehabilitation Co-ordinator) |
| Canada Council (humanities and social sciences) | <div>RESEARCH See also "Economic and Social Research" and "Scientific Research"</div> | |

Sources for Federal Data

Subject

Sources for Provincial Data

National Research Council
Laboratory Divisions (for investigations in applied biology, building research, pure and applied chemistry, mechanical engineering, including aeronautics and hydraulics, pure and applied physics, radio and electrical engineering)
Regional Laboratories at Saskatoon, Sask., and Halifax, N.S.
Division of Medical Research
(Scholarships and grants-in-aid for graduate research in the universities)
Inquiries for general research information should be addressed to the Technical Information Service.
Dept. of Mines and Technical Surveys
Mines Branch
Dominion Observatories
Dept. of Northern Affairs and National Resources
Forestry Branch (federal interests)
National Parks Branch, Canadian Wildlife Services, National Museum of Canada
Dept. of Agriculture
Science Service (for research in botany and plant pathology, bacteriology, chemistry, entomology, etc.)
Experimental Farms Service (for research in agricultural engineering, crop production, breeding and genetics, plant and animal nutrition, etc.)
Production Service (for research in animal diseases)
Dept. of Transport (aviation, radio, meteorology, navigation)
Dept. of National Defence
Defence Research Board, Directorate of Public Relations
Dept. of National Health and Welfare
Dept. of Veterans Affairs
Treatment Services Branch (medical research)
Fisheries Research Board of Canada

SCIENTIFIC
RESEARCH

Nfld.:—Dept. of Economic Development
P.E.I.:—Dept. of Industry and Natural Resources
N.S.:—Nova Scotia Research Foundation
N.B.:—Dept. of Industry and Development, Research and Development Division
Que.:—Dept. of Trade and Commerce, Scientific Research Bureau
Ont.:—Ontario Research Foundation
Man.:—Various Depts., such as Health and Welfare, Mines and Natural Resources, Agriculture and Immigration, Industry and Commerce
Sask.:—Saskatchewan Research Council
Alta.:—Alberta Research Council
B.C.:—Dept. of Industrial Development, Trade and Commerce Research Council

SENATE
See "Parliament"

SMALL LOANS
AND
MONEY-LENDERS
See "Banking"

Sources for Federal DataSubjectSources for Provincial DataSOCIAL
SECURITY

See

"Family
Allowances""Blindness
Allowances""Old Age
Assistance""Old Age
Security""Disabled Persons
Allowances""Workmen's
Compensation"

"Labour"

"Unemployment"

"Veterans Affairs"

"Economic and
Social Research"

SOCIAL WELFARE

See "Welfare"

Dept. of Trade and Commerce
Standards Branch (for inquiries
on electricity and gas inspection,
weights and measures, precious
metals marking, commodity
standards and national trade
mark matters)

Dept. of National Health and
Welfare (for standards and
method of control of quality or
potency of food and drugs)

Dept. of Agriculture (for inquiries
on standards for meat and
canned food, fruit, honey, maple
products, vegetables, dairy prod-
ucts, poultry, etc.)

Dept. of Transport (standards in
radio frequencies, standards in
steamship inspection)

National Research Council
Applied Physics Division (funda-
mental physical and electrical
standards)

Division of Building Research,
Specifications Section

Dept. of Fisheries (standards of fish
products)

Canadian Government Specifications
Board (specifications for pur-
chasing)

Canadian Standards Association
Central Mortgage and Housing
Corporation

STANDARDS
AND
SPECIFICATIONS

| Sources for Federal Data | Subject | Sources for Provincial Data |
|--|--|---|
| | STEAMSHIPS See "Transportation" | |
| | SUCCESSION DUTIES See "Taxation" | |
| Dept. of National Revenue Taxation Division (Income Tax and Succession Duties statistics and information) Customs and Excise Division (Customs, Excise and Sales Tax statistics and information) Dept. of Finance (Budget papers reviewing taxation policy, changes in rates, revenue fore- casts) | TAXATION | Nfld., Que.:—Depts. of Finance P.E.I.:—Provincial Treasurer N.S.:—Dept. of Provincial Secretary N.B.:—Dept. of Provincial Secre- tary-Treasurer Ont.:—Provincial Treasurer's Dept. Man., Sask.:—Provincial Treasury Depts. Alta.:—Provincial Treasurer's Dept. Provincial Secretary B.C.:—Dept. of Finance, Surveyor of Taxes |
| | TELEGRAPHS AND TELEPHONES See "Communications" | |
| Canadian Broadcasting Corporation Dept. of Transport Telecommunications Branch National Research Council National Film Board (films) | TELEVISION See also "Radio" | |
| Dept. of Mines and Technical Surveys Surveys and Mapping Branch National Research Council Applied Physics Division (photo- grammetric research) | TOPOGRAPHY | Nfld.:—Dept. of Mines and Re- sources N.S.:—Dept. of Mines, Nova Scotia Research Foundation N.B.:—Dept. of Lands and Mines Que.:—Dept. of Lands and Forests Dept. of Trade and Commerce Cartography Service Dept. of Mines Ont.:—Dept. of Lands and Forests, Surveys Branch Man.:—Dept. of Mines and Natural Resources Sask.:—Dept. of Natural Resources Alta., B.C.:—Depts. of Lands and Forests |
| Dept. of Northern Affairs and National Resources National Parks Branch Canadian Government Travel Bureau Dept. of Trade and Commerce Canadian Government Exhibition Commission (displays) National Film Board (films, photo- graphs) Dominion Bureau of Statistics | TOURIST TRADE | Nfld.:—Tourist Development Board P.E.I.:—Dept. of Provincial Secre- tary, Tourist and Information Branch N.S.:—Dept. of Trade and Industry, Travel Bureau N.B.:—New Brunswick Travel Bu- reau Que.:—Provincial Tourist Bureau Ont.:—Dept. of Travel and Pub- licity Man.:—Dept. of Industry and Commerce Sask.:—Dept. of Travel and In- formation, Tourist Branch Alta.:—Dept. of Economic Affairs, Alberta Travel Bureau B.C.:—Dept. of Recreation and Conservation, Travel Branch |

| Sources for Federal Data | Subject | Sources for Provincial Data |
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| <p>Dept. of Trade and Commerce Trade Commissioner Service Commodities Branch (for exports, imports, transportation, etc.) Agriculture and Fisheries Branch Trade Publicity Branch Industrial Development Branch Information Branch International Trade Relations Branch Canadian Government Exhibition Commission Export Credits Insurance Corporation Standards Branch (weights and measures) International Economic and Technical Co-operation Division (Colombo Plan)</p> <p>Dept. of Secretary of State Companies Division National Film Board (films, filmstrips, photographs, for exhibition publicity purposes) Dominion Bureau of Statistics</p> | TRADE | <p>For incorporation of companies under provincial law, address Provincial Secretaries except B.C., where Attorney-General's Department is the authority.</p> <p>Nfld.:—Dept. of Economic Development P.E.I.:—Dept. of Industry and Natural Resources N.S., B.C.:—Depts. of Trade and Industry N.B.:—Dept. of Industry and Development Que.:—Dept. of Trade and Commerce Ont.:—Dept. of Planning and Development, Trade and Industry Branch Man.:—Dept. of Industry and Commerce Sask.:—Dept. of Co-operation and Co-operative Development, Trade and Business Information Services Saskatchewan Marketing Services Industrial Development Office Alta.:—Dept. of Industries and Labour Dept. of Economic Affairs</p> |
| <p>Dept. of Secretary of State Bureau for Translations</p> | TRANSLATION | |
| <p>Dept. of National Defence, Directorate of Public Relations (Army) (for maintenance of Alaska Highway)</p> <p>Dept. of Public Works (Trans-Canada Highway, roads and bridges in National Parks and international and inter-provincial bridges) Development Engineering Branch and Information Services</p> <p>Dept. of Northern Affairs and National Resources National Parks Branch (for highways in National Parks)</p> <p>Board of Transport Commissioners (regulations re construction and operation of railways; construction and protection of highway crossings; rates of railways, express companies and certain inland water carriers; rates with respect to communications, international bridges and tunnels; issuing of licences to certain inland water carriers; regulations re construction of oil and gas pipelines; statistics)</p> <p>Air Transport Board (regulation of commercial air services)</p> <p>Dept. of Transport (railways, civil aviation, marine services, steamship inspection, canals, etc.) Canadian Maritime Commission National Harbours Board St. Lawrence Seaway Authority Trans-Canada Air Lines Northern Transportation Company Limited</p> <p>Dept. of National Health and Welfare Civil Aviation Medicine Division</p> <p>Dept. of Trade and Commerce Transportation and Trade Services Division National Film Board (films, filmstrips, photographs) Dominion Bureau of Statistics</p> | TRANSPORTATION | <p>Nfld.:—Dept. of Highways P.E.I.:—Dept. of Public Works and Highways N.S.:—Dept. of Highways and Public Works N.B.:—Dept. of Public Works Highways Branch Que.:—Dept. of Roads, Transportation Board Ont.:—Dept. of Highways, Ontario Northland Transportation Commission Man.:—Dept. of Public Works Highways Branch Dept. of Mines and Natural Resources Dept. of Public Utilities Dept. of Industry and Commerce Sask.:—Dept. of Highways and Transportation Saskatchewan Transportation Company Alta.:—Dept. of Railways and Telephones Dept. of Highways, Highway Traffic Board B.C.:—Dept. of Railways Public Utility Commission Dept. of Public Works Bureau of Economics and Statistics</p> |

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| Dept. of Northern Affairs and National Resources Northern Administration and Lands Branch (Yukon and Northwest Territories) National Parks Branch Dept. of Citizenship and Immigration Indian Affairs Branch Dominion Bureau of Statistics (for general trapping statistics) | TRAPPING See also "Fur Farming" | Nfld.:—Dept. of Mines and Resources P.E.I.:—Dept. of Industry and Natural Resources N.S., Ont., Alta.:—Depts. of Lands and Forests N.B.:—Dept. of Lands and Mines Que.:—Dept. of Game and Fish Man.:—Dept. of Mines and Natural Resources Sask.:—Dept. of Natural Resources, Fur Marketing Service B.C.:—Attorney - General's Dept. Provincial Game Commissioner |
| | TRUST AND LOAN COMPANIES See "Banking" | |
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| Dept. of Transport Meteorological Branch, Toronto National Research Council Division of Building Research Climatological Atlas of Canada | WEATHER | |
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PART II.—SPECIAL MATERIAL PUBLISHED IN FORMER EDITIONS OF THE CANADA YEAR BOOK

It is not possible to include in any single edition of the Year Book all articles and descriptive text of previous editions. Therefore the following list has been compiled as an index to such miscellaneous material and special articles as are not repeated in the present edition. This list links up the 1957-58 Year Book with its predecessors in respect of matters that have not been subject to wide change. Those Sections of Chapters, such as "Population", which are automatically revived when later census material is made available and to which adequate references are made in the text, are not listed unless they are in the nature of special contributions. The latest published article on each subject is shown, except when an earlier article includes material not repeated in the later one. When an article covers more than one subject it is listed under each appropriate heading.

The articles marked with an asterisk (*) are available in reprint form from the Information Services Division, Dominion Bureau of Statistics, at the price quoted.

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| A Bibliography of Canadian History..... | GUSTAVE LANCTOT, LL.M., D. Litt., LL.D., K.C., F.R.S.C. | 1939 | 36-40 |
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PART III.—REGISTER OF OFFICIAL APPOINTMENTS

The following list of official appointments continues up to Feb. 28, 1958, the list published in the 1956 Year Book at pp. 1219-1228.

Governor General's Staff.—1957. *June 11*, Lt.-Col. G. R. Whiston, M.B.E.: to be Honorary Aide-de-Camp. *June 29*, The following persons to be Deputies of His Excellency the Administrator of the Government of Canada: Hon. Robert Taschereau, Puisne Judge of the Supreme Court of Canada; Hon. Charles Holland Locke, Puisne Judge of the Supreme Court of Canada; Hon. Gerald Fauteux, Puisne Judge of the Supreme Court of Canada; Hon. Douglas Charles Abbott, Puisne Judge of the Supreme Court of Canada; Joseph François Delaute. *Nov. 12*, A/Lt.-Col. G. G. Aldous, M.C.; to be Honorary Aide-de-Camp. *Dec. 17*, A/Lt.-Col. R. C. Rutherford, M.B.E., C.D.: to be Honorary Aide-de-Camp.

Queen's Honorary Physician.—1957. *July 30*, Brigadier K. A. Hunter, O.B.E., C.D., M.D., Canadian Joint Staff, Co-ordinator of Medical Services, Department of National Defence: to be Queen's Honorary Physician for a period of two years.

Lieutenant-Governors.—1957. *Nov. 21*, Dr. William Joseph Parnell MacMillan: to be Lieutenant-Governor of the Province of Prince Edward Island, effective Dec. 16, 1957.* Campbell L. Macpherson: to be Lieutenant-Governor of the Province of Newfoundland, effective Dec. 16, 1957. *Nov. 28*, Mr. Justice John Keiller Mackay: to be Lieutenant-Governor of the Province of Ontario, effective Dec. 30, 1957. *Dec. 13*, Major-General Edward Chester Plow, C.B.E., D.S.O., C.D.: to be Lieutenant-Governor of the Province of Nova Scotia, effective Jan. 15, 1958. **1958.** *Jan. 27*, Frank Lindsay Bastedo Q.C.: to be Lieutenant-Governor of the Province of Saskatchewan, effective Feb. 3, 1958. Frederick Walter Hyndman: to be Lieutenant-Governor of the Province of Prince Edward Island, effective Mar. 31, 1958. *Jan. 29*, Onésime Gagnon: to be Lieutenant-Governor of the Province of Quebec, effective Feb. 14, 1958.

Queen's Privy Council.—1958. See p. 45 and Appendix.

Cabinet Ministers.—1958. See p. 44 and Appendix.

Senators.—1957. *Jan. 3*, William Albert Boucher: to be a Member of the Senate and a Senator for the Province of Saskatchewan. Austin Claude Taylor: to be a Member of the Senate and a Senator for the Province of New Brunswick. Sydney John Smith: to be a Member of the Senate and a Senator for the Province of British Columbia. Henri-Charles Bois: to be a Member of the Senate and a Senator for the Province of Quebec. *Apr. 25*, J. Eugène Lefrançois: to be a Member of the Senate and a Senator for the Province of Quebec. *Sept. 20*, George Stanley White, Q.C.: to be a Member of the Senate and a Senator for the Province of Ontario. *Oct. 4*, Mark-Robert Drouin, Q.C.: to be a Member of the Senate and a Senator for the Province of Quebec. *Oct. 12*, Clarence V. Emerson: to be a Member of the Senate and a Senator for the Province of New Brunswick. Dr. Joseph A. Sullivan and William Ralph Brunt, Q.C.: to be Members of the Senate and Senators for the Province of Ontario. Arthur M. Pearson: to be a Member of the Senate and a Senator for the Province of Saskatchewan. Léon Methot, Q.C. and Gustave Monette, Q.C.: to be Members of the Senate and Senators for the Province of Quebec. **1958.** *Jan. 7*, John Joseph Macdonald, D.C.M.: to be a Member of the Senate and a Senator for the Province of Prince Edward Island. *Jan. 29*, Gunnar S. Thorvaldson: to be a Member of the Senate and a Senator for the Province of Manitoba. *Jan. 31*, James Gladstone, a Treaty Indian of the Blood Reserve of Cardston, Alta.: to be a Member of the Senate and a Senator for the Province of Alberta. *Jan. 31*, Lionel Choquette: to be a Member of the Senate and a Senator for the Province of Ontario.

Speaker of the Senate.—1957. *Oct. 4*, Hon. Mark Drouin, a Member of the Senate: to be Speaker of the Senate.

Deputy Ministers.—1957. *Feb. 28*, Mitchell William Sharp, Associate Deputy Minister of Trade and Commerce: to be Deputy Minister of Trade and Commerce, effective Aug. 1, 1957. *Apr. 15*, Wilbur Roy Jackett, Q.C., Assistant Deputy Minister of Justice: to be Deputy Minister of Justice and Deputy Attorney General of Canada, effective May 1, 1957. *Sept. 24*, George Andrew Boyle: to be Deputy Postmaster General, effective Dec. 1, 1957.

Parliamentary Assistants.—1957. *Aug. 7*, John Alpheus Charlton, M.P.: to be Parliamentary Assistant to the Minister of Agriculture. Arthur Maloney, M.P.: to be Parliamentary Assistant to the Minister of Labour. G. Ernest Halpenny, M.P.: to be Parliamentary Assistant to the Minister of National Health and Welfare. Raymond O'Hurley, M.P.: to be Parliamentary Assistant to the Minister of Mines and Technical

*Dr. W. J. P. MacMillan died Dec. 7, 1957.

Surveys. Marcel Lambert, M.P.: to be Parliamentary Assistant to the Minister of National Defence. Thomas M. Bell, M.P.: to be Parliamentary Assistant to the Minister of Trade and Commerce. Angus R. Macdonald, M.P.: to be Parliamentary Assistant to the Minister of Transport. Clayton W. Hodgson, M.P.: to be Parliamentary Assistant to the Minister of Public Works. *Aug. 19*, Wallace Bickford Nesbitt, M.P.: to be Parliamentary Assistant to the Prime Minister. Walter Dinsdale, M.P.: to be Parliamentary Assistant to the Minister of Veterans Affairs. David J. Walker, M.P.: to be Parliamentary Assistant to the Minister of Justice. Richard A. Bell, M.P.: to be Parliamentary Assistant to the Minister of Finance. *Nov. 6*, John Borden Hamilton, M.P.: to be Parliamentary Assistant to the Minister of Citizenship and Immigration. **1958.** *Jan. 10*, Wallace Bickford Nesbitt, M.P.: to be Parliamentary Assistant to the Secretary of State for External Affairs.

Diplomatic Appointments.—1957. *Jan. 10*, James Scott MacDonald: to be Ambassador Extraordinary and Plenipotentiary of Canada to Austria. George Ignatieff: to be Ambassador Extraordinary and Plenipotentiary of Canada to Yugoslavia. Max Hirsch Wershof: to be Permanent Representative of Canada to the European Office of the United Nations, Geneva. Hector Allard: to be Ambassador Extraordinary and Plenipotentiary of Canada to Cuba and concurrently Ambassador Extraordinary and Plenipotentiary of Canada to the Dominican Republic and Ambassador Extraordinary and Plenipotentiary of Canada to Haiti. William Arthur Irwin: to be Ambassador Extraordinary and Plenipotentiary of Canada to Brazil. Philippe Panneton: to be Ambassador Extraordinary and Plenipotentiary of Canada to Portugal. *Jan. 17*, Robert Arthur Douglass Ford: to be Ambassador Extraordinary and Plenipotentiary of Canada to Colombia. Terrence William Leighton MacDermot: to be High Commissioner for Canada to Australia. *Mar. 7*, Chester Alvin Ronning: to be High Commissioner for Canada to India. *Apr. 4*, Norman Alexander Robertson: to be Ambassador Extraordinary and Plenipotentiary of Canada to the United States. William Frederick Bull: to be Ambassador Extraordinary and Plenipotentiary of Canada to Japan. *Apr. 15*, Edgar D'Arcy McGreer: to be Ambassador Extraordinary and Plenipotentiary of Canada to Greece and concurrently Ambassador Extraordinary and Plenipotentiary of Canada to Israel. Edmond Turcotte: to be Ambassador Extraordinary and Plenipotentiary of Canada to Switzerland. Herbert Owen Moran: to be High Commissioner for Canada to Pakistan. *June 13*, Ronald MacAlister Macdonnell: to be Ambassador Extraordinary and Plenipotentiary of Canada to Egypt and concurrently Minister Extraordinary and Plenipotentiary of Canada to Lebanon. Evan William Thistle Gill: to be High Commissioner for Canada to Ghana. *June 24*, Hon. George Alexander Drew: to be High Commissioner for Canada to the United Kingdom. *Nov. 22*, Robert Alexander MacKay: to be Ambassador of Canada to Norway and Minister of Iceland. Escott Meredith Reid: to be Ambassador of Canada to Germany. Charles Stewart Almon Ritchie: to be Permanent Delegate of Canada to the United Nations, with the rank of Ambassador. *Dec. 13*, Arthur Redpath Menzies: to be High Commissioner for Canada to the Federation of Malaya. Evan Benjamin Rogers: to be Ambassador Extraordinary and Plenipotentiary of Canada to Turkey. *Dec. 13*, Nik Cavell: to be High Commissioner for Canada to Ceylon. George Robert Cawdron Heasman: to be High Commissioner for Canada to New Zealand. James Joseph Hurley: to be High Commissioner for Canada to the Union of South Africa.

Judicial Appointments

Higher Courts.—1956. *Aug. 15*, L. P. Lizotte, Q.C.: to be a Puisne Judge of the Superior Court for the District of Quebec in the Province of Quebec, effective Sept. 1, 1956. Ignace Deslauriers, Q.C.: to be a Puisne Judge of the Superior Court for the District of Montreal in the Province of Quebec. *Aug. 29*, Arthur L. Thurlow, Q.C.: to be a Puisne Judge of the Exchequer Court of Canada. Alan Burnside Harvey, Q.C.: to be Deputy Registrar of the Supreme Court of Canada, effective Oct. 1, 1956. *Sept. 13*, Hon. Arthur Mahoney LeBel: to be a Member of the Court of Appeal for Ontario and *ex officio* a Member of the High Court of Justice for Ontario, effective Oct. 10, 1956. Leo A. Landreville, Q.C.: to be a Judge of the Supreme Court of Ontario and a Member of the High

Court of Justice for Ontario, and *ex officio* a Member of the Court of Appeal for Ontario, effective Oct. 10, 1956. Oct. 11, Victor Pager, Q.C.: to be a Puisne Judge of the Superior Court for the District of Montreal, in the Province of Quebec, effective Nov. 15, 1956. Oct. 31, Jean-Louis Marchand: to be a Puisne Judge of the Superior Court for the District of Three Rivers, in the Province of Quebec. Nov. 14, Hon. Fernand-Léopold Choquette, a Puisne Judge of the Superior Court for the District of Quebec in the Province of Quebec: to be a Puisne Judge of the Court of Queen's Bench in and for the Province of Quebec. Paul Lesage, Q.C.: to be a Puisne Judge of the Superior Court for the District of Quebec, in the Province of Quebec. 1957. Jan. 3, H. Allan MacLean, Q.C.: to be a Judge of the Supreme Court of British Columbia, effective Feb. 1, 1957. Jan. 17, Hon. Clinton James Ford, a Judge of the Appellate Division of the Supreme Court of Alberta: to be Chief Justice of the Supreme Court of Alberta, with the style and title of Chief Justice of Alberta, and *ex officio* a Judge of the Trial Division of the said Court. Hon. Hugh John Macdonald, a Judge of the Trial Division of the Supreme Court of Alberta: to be a Judge of the Appellate Division of the said Court, and *ex officio* a Judge of the Trial Division of the said Court. Hon. J. Boyd McBride, a Judge of the Trial Division of the Supreme Court of Alberta: to be a Judge of the Appellate Division of the said Court and *ex officio* a Judge of the Trial Division of the said Court. His Honour Peter Greschuk, a Judge of the District Court of the District of Northern Alberta: to be a Judge of the Trial Division of the Supreme Court of Alberta, and *ex officio* a Judge of the Appellate Division of the said Court. H. W. Riley, Q.C.: to be a Judge of the Trial Division of the Supreme Court of Alberta, and *ex officio* a Judge of the Appellate Division of the said Court. Feb. 21, Alfred S. Marriott, Q.C.: to be a Surrogate Judge in Admiralty of the Exchequer Court of Canada for the Ontario Admiralty District. Feb. 22, George H. Montgomery, Q.C.: to be a Puisne Judge of the Court of Queen's Bench in and for the Province of Quebec. Apr. 18, Hon. George Eric Tritschler: to be a Judge of the Court of Appeal for Manitoba, and *ex officio* a Judge of the Court of Queen's Bench for Manitoba. A. M. Monnin, Barrister-at-Law: to be a Judge of the Court of Queen's Bench for Manitoba. Oct. 1, Emmett Matthew Hall, Q.C.: to be Chief Justice of Her Majesty's Court of Queen's Bench for Saskatchewan. Oct. 25, K. G. Morden, Q.C.: to be a Judge of the Supreme Court of Ontario and a Member of the Court of Appeal and *ex officio* a Member of the High Court of Justice for Ontario. Nov. 7, Frédéric Dorion, Q.C.: to be a Puisne Judge of the Superior Court for the District of Quebec in the Province of Quebec. Jean St-Germain, Q.C.: to be a Puisne Judge of the Superior Court for the District of Montreal in the Province of Quebec. Dec. 13, J.-Achille Joli-coeur, Q.C.: to be a Puisne Judge of the Superior Court for the District of Quebec. George A. McGillivray, Q.C.: to be a Judge of the Supreme Court of Ontario and a Member of the Court of Appeal for Ontario, and *ex officio* a Member of the High Court of Justice for Ontario. Dec. 23, Gaétan Sylvestre, Q.C.: to be a Puisne Judge of the Superior Court for the District of Montreal, in the Province of Quebec. 1958. Jan. 13, Hugh C. Farthing, Q.C.: to be a Judge of the District Court of the District of Southern Alberta and a Local Judge of the Supreme Court of Alberta, effective Feb. 1, 1958. Jan. 15, Ronald Martland, Q.C.: to be a Puisne Judge of the Supreme Court of Canada. Jan. 24, Antoine Lacourcière, Q.C.: to be a Puisne Judge of the Superior Court for the District of Quebec in the Province of Quebec. Jan. 28, Franklin Kay Collins: to be a Judge of the Supreme Court of British Columbia. Alan Burnside Harvey, Q.C., Deputy Registrar of the Supreme Court of Canada: to be Registrar of the Supreme Court of Canada, effective Jan. 28, 1958. Jan. 31, Dana Harris Porter, Q.C.: to be a Judge of the Supreme Court of Ontario and Chief Justice of the Court of Appeal for Ontario, with the style and title of Chief Justice of Ontario, and *ex officio* a Member of the High Court of Justice for Ontario. Feb. 5, Hon. Wilfred Judson, a Judge of the Supreme Court of Ontario and a Member of the High Court of Justice for Ontario: to be a Puisne Judge of the Supreme Court of Canada. Feb. 7, Hon. Emmett Matthew Hall, Chief Justice of the Court of Queen's Bench for Saskatchewan: to be the Judge of the Appeal Court constituted by the Farmers' Creditors Arrangement Act for the Province of Saskatchewan.

County and District Courts.—1956. *Sept. 13*, Peter S. MacKenzie: to be a Judge of the County Court for the County of Bruce in the Province of Ontario and also a Local Judge of the High Court of Justice for Ontario. *Sept. 20*, Lawrence Hudson Phinney, Police Magistrate in and for the Northwest Territories: to act as Juvenile Court Judge for that part of the Northwest Territories lying North of the Arctic Circle. *Nov. 22*, William Austin Molloy: to be a Judge of the County Court of the Eastern Judicial District in the Province of Manitoba, effective Dec. 1, 1956. **1957.** *Jan. 17*, John E. Friesen: to be Judge of the District Court of the Judicial District of Shaunavon, in the Province of Saskatchewan. *Jan. 31*, John Edward Gibben: to be a Police Magistrate in and for the Yukon Territory. *Feb. 7*, John Howard Sissons, Judge of the Territorial Court of the Northwest Territories and Deputy Judge of the Territorial Court of the Yukon Territory to act as Juvenile Court Judge for that part of the Yukon Territory lying to the North of the Arctic Circle. *Feb. 28*, His Honour Reginald D. Keirstead, Judge of the County Court for the City and County of Saint John, N.B.: to be Deputy Judge of the Admiralty District for the Province of New Brunswick. *Apr. 15*, Colin E. Bennett, Q.C.: to be Judge of the County Court of the County of Grey, in the Province of Ontario and also a Local Judge of the High Court of Justice for Ontario. *Apr. 18*, John R. Solomon, Barrister-at-Law: to be a Judge of the County Court of the Eastern Judicial District in the Province of Manitoba, effective June 1, 1957. *Apr. 25*, Arthur Charles Lewer Adams, Police Magistrate in and for the Yukon Territory: to act as a Juvenile Court Judge in that part of the Mining District of Dawson and Mayo in the Yukon Territory lying south of the Sixty-sixth Parallel of North Latitude and in the area known as the Mining District of Whitehorse in the Yukon Territory. *May 27*, J. D. McCallum, Barrister-at-Law: to be Junior Judge of the County Court of the County of Middlesex, in the Province of Ontario and also a Local Judge of the High Court of Justice for Ontario, effective June 15, 1957. *Sept. 24*, Gordon Lindsay, Q.C.: to be a Judge of the County Court of Yale in the Province of British Columbia and a Local Judge of the Supreme Court of British Columbia. Laurance Yeomans Cairns, Q.C.: to be a Judge of the District Court of the District of Northern Alberta in the said Province and a Local Judge of the Supreme Court of Alberta. Herbert E. Keown, Q.C.: to be Judge of the District Court of the Judicial District of Swift Current in the Province of Saskatchewan. *Nov. 7*, R. A. Carscallen, Q.C.: to be Judge of the County Court of the County of Lambton in the Province of Ontario, and also a Local Judge of the High Court of Justice for Ontario. *Dec. 23*, Harold W. Timmins, Q.C.: to be a Junior Judge of the County Court of the County of York, in the Province of Ontario, effective Jan. 1, 1958. **1958.** *Jan. 13*, Ralph H. Shaw, Barrister-at-Law: to be Judge of the County Court of District Number Four in the Province of Nova Scotia. *Jan. 17*, Maxwell W. Strange, Q.C.: to be a Judge of the County Court of the County of Frontenac in the Province of Ontario and a Local Judge of the High Court of Justice for Ontario. Richard W. Reville, Q.C.: to be Judge of the County Court of the County of Brant in the Province of Ontario and a Local Judge of the High Court of Justice for Ontario. *Jan. 28*, Stanley J. Remnant, Q.C.: to be a Judge of the County Court of Vancouver in the Province of British Columbia and a Local Judge of the Supreme Court of British Columbia. *Jan. 31*, William Arthur Schultz, Q.C.: to be Judge of the County Court of Prince Rupert in the Province of British Columbia and to be a Local Judge of the Supreme Court of British Columbia.

Courts under Canadian Citizenship Act.—1956. *July 12*, The following persons are designated to act as Courts for the purposes of the Canadian Citizenship Act: Inspector Joseph John Atherton, Officer Commanding, Prince Albert Sub-division, Royal Canadian Mounted Police, Prince Albert, Sask.; Corporal Harry MacBeth Mann, Royal Canadian Mounted Police Detachment, Uranium City, Sask.; Constable William Kenneth Williams, Royal Canadian Mounted Police Detachment, Fort McMurray, Alta.; and William Carysfort Proby, Stipendiary Magistrate, Ocean Falls, B.C. *Sept. 27*, Lieut.-Col. Gérard-Adolphe-Maxime Nantel, Assistant Judge Advocate General, Canadian Joint Staff, London, England; Major Clarence Howard Johnson, Deputy Judge Advocate, Canadian Infantry Brigade, Soest, Germany; and Lieutenant-Commander Herbert Galt Oliver,

Deputy Judge Advocate, Air Division Headquarters, RCAF, Metz, France: to act as Courts for the purpose of dealing with applications under the Canadian Citizenship Act made by persons serving in the Armed Forces of Canada outside of Canada. *Oct. 3*, Aubrey Fisher, Stipendiary Magistrate, Fort Nelson, B.C.; Constable Alexander William Wieslow, Royal Canadian Mounted Police Detachment, Port Alice, B.C.; Constable Max Harte, Royal Canadian Mounted Police Detachment, Cassiar, B.C.; and Corporal David Gordon Kennedy, Royal Canadian Mounted Police Detachment, Fort Chipewyan, Alta.: to act as Courts for the purposes of the Canadian Citizenship Act. *Oct. 25*, J. Colin A. Campbell, Q.C., Chairman of the Immigration Appeal Boards: to act as a Court from Nov. 1, 1956. *Dec. 28*, Kenneth Lockhart MacKenzie (Jurisdiction, Province of Ontario), Ross McCormick Winter (Jurisdiction, Province of Ontario), and J.-Darius Robitaille (Jurisdiction, Province of Quebec): to act, as and from Jan. 1, 1957, as Courts for the purposes of the Canadian Citizenship Act. **1957.** *Jan. 17*, Vernon Ulysses Miner, Q.C.—(Jurisdiction, Provinces of Alberta and Saskatchewan); Archibald Frederick Flucke, Northern Affairs Officer, Frobisher Bay, N.W.T. (Jurisdiction, Northwest Territories); Corporal Edward Evan Jones, Royal Canadian Mounted Police Detachment, Cambridge Bay, N.W.T. (Jurisdiction, Northwest Territories); Corporal Hughes Douglas Ferguson, Royal Canadian Mounted Police Detachment, Mayo, Yukon Territory (Jurisdiction, Yukon Territory); Constable James Gladman Vincent, Royal Canadian Mounted Police Detachment, Dawson, Yukon Territory (Jurisdiction, Yukon Territory); Constable Wayne Howard Canam, Royal Canadian Mounted Police Detachment, Great Whale River, Quebec (Jurisdiction, Province of Quebec): to act as Courts. *Apr. 4*, Magistrate Clement P. Scott, St. Anthony, Nfld.; Magistrate Edward Walter Kenrick, Kirkland Lake, Ont.; Paul Ethelbert Trussler, Geraldton, Ont.; Corporal Gordon Clifton Barr, Royal Canadian Mounted Police Detachment, Pangnirtung, N.W.T.; and Constable Joseph-Jean-Romeo-Georges Coulombe, Royal Canadian Mounted Police Detachment, Sept-Îles, Que.: to act as a Court. *June 20*, Sub-Inspector Albert Huget, Royal Canadian Mounted Police Detachment, Aklavik, Yukon Territory; Constable Steve Penteluk, Royal Canadian Mounted Police Detachment, Mayo, Yukon Territory; Constable Carl Walter Smith, Royal Canadian Mounted Police Detachment, Ile a la Crosse, Sask.; Constable Vernon George Smith, Royal Canadian Mounted Police Detachment, Fort Vermilion, Alta.: to act as Courts. *Aug. 16*, Sub-Inspector John Stewart Craig, Royal Canadian Mounted Police Detachment, Fort Smith, N.W.T.; Corporal Joseph Laurie Belliveau, Royal Canadian Mounted Police Detachment, Sept-Îles, Que.; Constable Ian Russell Smith, Royal Canadian Mounted Police Detachment, Port Alice, B.C.; Squadron Leader Terence Reid Giles, Deputy Judge Advocate, No. 1 Air Division, Metz, France; Major Frederick Ronald Bickell, Deputy Judge Advocate, Canadian Infantry Brigade, Soest, Germany: to act as Courts. *Sept. 12*, Corporal Charles-Auguste-Leo Liboiron, Royal Canadian Mounted Police Detachment, Roberval, Que.; Corporal William Arthur Fieldsend, Royal Canadian Mounted Police Detachment, Snow Lake, Man.; James Jameson Bond, Northern Affairs Officer, Cambridge Bay, N.W.T.: to act as Courts. *Oct. 26*, Constable Robert Winston Hobson, Royal Canadian Mounted Police Detachment, Tahsis, B.C.; Constable John Hugh Wilson, Royal Canadian Mounted Police Detachment, Great Whale River, Que.; Corporal Robert Neil Milmine, Royal Canadian Mounted Police Detachment, Cambridge Bay, Northwest Territories; and Magistrate Marcel Léger, Office of the District Magistrate, Cochrane, Ont.: to act as Courts.

Miscellaneous

1956. *July 19*, Hon. Gordon McGregor Sloan: to be until Mar. 31, 1957, the Administrator of the Government of the Province of British Columbia whenever the Lieutenant-Governor is unable to execute his office and functions by reason of absence, illness or other inability. *Aug. 29*, A. G. Stanley: to be Inspector of Machinery of Steamships at Halifax, N.S., pursuant to Sect. 376 of the Canada Shipping Act. The following persons to be, pursuant to Sect. 497 of the Canada Shipping Act, receivers of wrecks for districts

in the Province of Nova Scotia: District No. 1—J. T. Burns, Office of the District Marine Agent, Halifax, N.S.; District No. 2—Major W. A. Leask, Harbour Master, Beaver Harbour, Halifax County, N.S.; District No. 3—R. E. Jamieson, Canso, N.S.; District No. 6—T. M. Allan, Box 32, Pugwash, N.S.; District No. 8—P. A. Sanford, Harbour Master, Walton, Hants County, N.S.; District No. 9—Captain R. C. Hall, Keeper, Margaretsville Light, Margaretsville, Annapolis County, N.S.; District No. 10—C. F. McBride, Sr., Wharfinger, Box 264, Digby, N.S.; District No. 11—Captain George L. Coggins, Harbour Master, Weymouth, N.S.; District No. 12—Patrick J. Murphy, Yarmouth, N.S.; District No. 13—Edward C. Crowell, Port LaTour, N.S.; District No. 14—Richard William Mulhall, Harbour Master, Liverpool, N.S.; District No. 16—A. Victor Kyte, Mulgrave, N.S.; District No. 17—Captain E. R. Huntington, Harbour Master, P.O. Box 558, Sydney, N.S.; District No. 18—John H. MacInnis, R.R. No. 1, Port Hood, Inverness County, N.S. *Sept. 13*, Hon. James Chalmers McRuer, Chief Justice of the High Court of Justice of Ontario: to be during pleasure the Administrator of the Government of Ontario whenever the Lieutenant-Governor of Ontario is unable to execute his office and functions by reason of absence, illness, or other inability. *Sept. 27*, Roy Forsythe Purdie and Robert S. Torrance: to be Inspectors of Hulls and Equipment of Steamships. *Nov. 22*, James Albert Smith: to be an Inspector of Hulls and Equipment of Steamships at Ottawa, Ont., pursuant to the Canada Shipping Act. *Nov. 29*, Gerald-Armand Beaudoin, Donald Henry Christie, Alban Garon, Gilbert Thomas Gregory, Bernard Charles Hofley, Hilton Alexander McIntosh, Charles Robert Orrock Munro, Ellis Richmond Olson and Francis Frederick Gallant: to be Commissioners *per dedimus potestatem* to take oaths for use in the Supreme and Exchequer Courts of Canada. **1957.** *Jan. 17*, Mrs. Rolande-Andrée-Camille Rouen, an employee of the Royal Canadian Mounted Police Crime Detection Laboratory: to be a duly qualified analyst pursuant to the Opium and Narcotic Drug Act. *Jan. 22*, Hon. Marshall Menzies Porter and Hon. Horace Gilchrist Johnson, Judges of the Appellate Division of the Supreme Court of Alberta, and Hon. Philip Neil Primrose, Hon. Peter Greschuk and Hon. Harold William Riley, Judges of the Trial Division of the said Court: to be Commissioners to take oaths in the Province of Alberta. *Feb. 7*, Hon. Clinton James Ford, Chief Justice of Alberta: to be during pleasure the Administrator of the Government of the said Province of Alberta whenever the Lieutenant-Governor is unable to execute his office and functions by reason of absence, illness or other inability. *Feb. 28*, Barrie Montgomery Strang: to be Inspector of Machinery and of Hulls and Equipment of Steamships at the Port of St. John's, Nfld., effective Feb. 1, 1957. *Mar. 7*, William Hugh Masson Wardrope, Assistant Chief Commissioner, Board of Transport Commissioners for Canada: to be one of Her Majesty's Counsel learned in the law. *Mar. 14*, Hon. Gordon McGregor Sloan, Chief Justice of British Columbia: to be again from Apr. 1, 1957, until Mar. 31, 1958, both dates inclusive, the Administrator of the Government of the Province of British Columbia whenever the Lieutenant-Governor is unable to execute his office and functions by reason of absence, illness or other inability. *Apr. 18*, Guy Roberge: to be Government Film Commissioner, for a period of five years, effective May 1, 1957. *Apr. 25*, Guy Roberge: to be one of Her Majesty's Counsel learned in the law. *July 25*, Hon. Jacques Dumoulin and Hon. Arthur Louis Thurlow, Puisne Judges of the Exchequer Court of Canada; Hon. Frederick Anderson Sheppard, Court of Appeal for British Columbia; Hon. Sherwood Lett, Chief Justice, and Hon. Harold Walker McInnes, Hon. Arthur Edward Lord, Hon. Harry Joseph Sullivan, Hon. Thomas Wilfrid Brown, Hon. John Graham Ruttan and Hon. Hugh Alan Maclean, Supreme Court of British Columbia; Hon. Ivan Schultz, Court of Appeal for Manitoba; Hon. Alfred Maurice Monnin, Court of Queen's Bench for Manitoba; Hon. John Babbitt McNair, Chief Justice of New Brunswick, and Hon. Louis McCoskery Ritchie, Appeal Division of the Supreme Court of New Brunswick; Hon. Charles Jordan Jones, Queen's Bench Division of the Supreme Court of New Brunswick; Hon. John Howard Sissons, Territorial Court of the Northwest Territories; Hon. Léo-Albert Landreville, Supreme Court of Ontario and the High Court of Justice for Ontario; Hon. Jean Martineau, Hon. André Taschereau, Hon. George Robert Whitley Owen, Hon. George Hugh Montgomery, Court of Queen's Bench for Quebec; Hon. Georges François Reid, Hon. William Morin, Hon. Charles-A. Sylvestre,

Hon. Roger Ouimet, Hon. Jean-Pierre Charbonneau, Hon. Ignace-Joseph Deslauriers, Hon. Louis-Philippe Lizotte, Hon. Jean-Louis Marchand, Hon. Paul Lesage and Hon. Victor Payer, Court of Queen's Bench for Quebec: to be Commissioners *per dedimus potestatem* to administer oaths in Canada or in the province or territory for which such judges were appointed. Oct. 3, Alfred Frederick Lambert: to be International Boundary Commissioner, *vice* J. E. R. Ross, resigned. Oct. 10, Hon. Sir Brian Edward Spencer Dunfield, Kt., a Judge of the Supreme Court of Newfoundland: to be the Administrator of the Government of the Province of Newfoundland from Oct. 10 to Oct. 20, 1957, both dates inclusive. Oct. 22, Hon. Sir Brian Edward Spencer Dunfield, Kt., a Judge of the Supreme Court of Newfoundland: to be again the Administrator of the Government of the Province of Newfoundland for a further period from Oct. 21, 1957, until the Lieutenant-Governor of Newfoundland is able to exercise the functions of Lieutenant-Governor. Nov. 7, Hon. Sir Albert Joseph Walsh, Kt., Chief Justice of the Province of Newfoundland: to be the Administrator of the government of the said Province of Newfoundland whenever the Lieutenant-Governor of Newfoundland is unable to execute his office and functions by reason of absence, illness or other inability, effective Nov. 12, 1957. 1958. Jan. 31, John Bracken: to inquire into the distribution of railway box cars for the movement of grain amongst country elevators at individual shipping points in Western Canada. Feb. 13, Victor Martineau, Assistant Master of the Rolls: to be Official Receiver for Bankruptcy Division No. 1 of the Province of Quebec, *vice* F. G. Coffin, Q.C., resigned. Feb. 18, George L. Cassidy, Q.C., Chief Oscar D. Peters and Chief Vincent Harris: to be Commissioners under Part I of The Inquiries Act, to inquire into the desirability of establishing a new band of Indians composed of those Indians residing on Seabird Island in the Province of British Columbia. Feb. 25, Hon. Dana H. Porter, Chief Justice of Ontario: to be Administrator of the Government of Ontario whenever the Lieutenant-Governor is unable to execute his functions by reason of absence, illness or other inability.

Government Appointments to Miscellaneous Boards, Commissions, etc.

Agricultural Stabilization Board.—1958. Feb. 18, Luke W. Pearsall, S. J. Chagnon and Alexander Howard Turner: to be Members of the Board, Luke W. Pearsall to be Chairman and Alexander Howard Turner to be Vice-Chairman thereof.

Bank of Canada.—1957. Jan. 7, H. O. Patriquin: to be a Director for the period expiring Feb. 28, 1958, the remainder of the term of the late Arthur M. Day. Feb. 21, The following persons to be Directors for a term of three years commencing Mar. 1, 1957: W. A. Johnson, H. A. Russel, Austin A. Seales and Anselme Samoisette.

Frederick Banting Fund Account Committee.—1956. Sept. 13, The following persons to be Members: C. J. Mackenzie, President of the Atomic Energy Control Board; A. H. Zimmerman, Chairman of the Defence Research Board; K. W. Neatby, Director, Science Service, Department of Agriculture; W. J. Bennett, President of the Atomic Energy of Canada Limited; and F. T. Rosser, Director of Administration, National Research Council, to be Secretary of the Committee.

Board of Grain Commissioners.—1956. Oct. 3, Roy Wilfred Milner: to be Chief Commissioner for Canada, *vice* Donald Gordon McKenzie, effective Dec. 10, 1956.

Board of Transport Commissioners for Canada.—1956. Nov. 20, Clarence Day Shepard: to be a Member and Chief Commissioner of the Board, *vice* Hon. John Doherty Kearney, resigned, effective Jan. 15, 1957.

Buffalo and Fort Erie Public Bridge Authority.—1957. Dec. 23, Allan Lewis Brooks, Q.C., Welland, Ont.; J. George Johnston, Toronto, Ont.; Archibald L. Hayes, D.D.S., Fort Erie, Ont.; John A. MacDonald, Ottawa, Ont.; and William G. Stamp, Fort Erie, Ont., *vice* J. S. Kaymayer, John H. Gardner and John M. Teal: to be Canadian Members, effective Jan. 1, 1958.

Canada Council.—1957. Apr. 15, Hon. Brooke Claxton and the Very Reverend George Henri Lévesque: to be Chairman and Vice-Chairman respectively for terms of five years. Each of the following persons to be Members: Mrs. R. Reginald Arkell, two

years; Jules Bazin, two years; L. W. Brockington, two years; Samuel Bronfman, two years; Fred Emerson, two years; Eric Harvie, two years; Dr. Frank Leddy, three years; Mrs. Angus L. Macdonald, three years; Dr. N. A. MacKenzie, three years; Dr. Frank MacKinnon, three years; Dr. W. A. Macintosh, three years; Sir Ernest MacMillan, three years; Dr. Eustache Morin, four years; Miss Vida Peene, four years; John A. Russell, four years; E. P. Taylor, four years; Mrs. Alfred Paradis, Jr., four years; Major-General George P. Vanier, four years; David H. Walker, four years. Dr. A. W. Trueman: to be Director, and E. Bussière: to be Associate Director of the Canada Council. John G. Hungerford, James Muir and Graham Towers: to be Members of the Investment Committee of the Canada Council.

Canada Labour Relations Board.—1957. July 25, A. H. Balch, Vice-Chairman of the National Legislative Committee, International Railway Brotherhoods, Ottawa: to be a Member as a representative of employees *vice* W. L. Best, deceased.

Canadian Broadcasting Corporation.—1956. Nov. 29, The following persons to be again Governors: Dr. G. Douglas Steel, for a period of three years from Nov. 1, 1956, and Kenneth G. Montgomery, for a period of three years from Jan. 1, 1957. 1957. Dean Adrien Pouliot: to be again a Governor for a term of three years from Jan. 25, 1957.

Canadian Commercial Corporation.—1956. Aug. 9, Richard Golding Johnson, President, Defence Construction (1951) Limited: to be a Director, *vice* T. E. Stephenson, resigned.

Canadian Farm Loan Board.—1958. Jan. 24, Clément Vincent, Ste-Perpétue, Que., and Cameron McTaggart, Glencoe, Ont.: to be Members for a period of five years.

Canadian Maritime Commission.—1956. Nov. 22, Louis de la Chesnaye Audette: to be again a Member for a term of five years from Nov. 1, 1956, and to be again Chairman of the said Commission.

Canadian Pension Commission.—1956. Dec. 5, Reginald Robert Laird, M.D., C.M.: to be a Commissioner for a period of ten years from Jan. 1, 1957. 1957. Oct. 4, Brigadier James Learmonth Melville: to be a Commissioner and Chairman of the Commission for the period expiring the 30th day of December, 1958.

Civil Service Commission.—1957. Jan. 17, Miss Ruth Elizabeth Addison, Executive Assistant to the Deputy Minister of Defence Production: to be a Member, effective Feb. 1, 1957. Mar. 14, Arnold Danforth Patrick Heeney, Q.C., Ambassador Extraordinary and Plenipotentiary of Canada to the United States of America: to be a Member and Chairman thereof *vice* S. G. Nelson, effective May 1, 1957. Paul Pelletier, Assistant Secretary to the Cabinet: to be a Member *vice* A. J. Boudreau, effective Aug. 1, 1957.

Defence Research Board.—1957. Mar. 28, Dr. John Edgar Keyston, O.B.E.: to be Vice-Chairman, effective June 1, 1957. Apr. 11, Thomas Ingledow: to be a Member for a term of three years commencing Apr. 1, 1957. July 16, Dr. George Sydney Field, Chief Scientist: to be a Member for a term of three years commencing Aug. 1, 1957.

Dominion Council of Health.—1956. Dec. 13, John W. Bruce, O.B.E.: to be a Member. 1957. Jan. 24, Miss Priscilla Cameron, R.N., Administrator of the Chatham General Hospital, Chatham, Ont.: to be a Member for a further period of three years from June 1, 1957.

Dominion Statistician.—1956. Oct. 3, Walter Elliott Duffett: to be Dominion Statistician, effective Jan. 1, 1957.

Federal District Commission.—1956. Dec. 13, Mme. Cécile Fontaine and Lawrence Freiman: to be again Members for the period ending Dec. 31, 1959. Dec. 19, Colonel J. D. Fraser: to be again a Member for the period ending Dec. 31, 1959. 1958. Jan. 17, Major-General Howard Kennedy: to be a Member for a period of six months and to be Chairman of the Commission.

Historic Sites and Monuments Board of Canada.—1956. *July 12*, Oliver L. Vardy: to be a Member, representing the Province of Newfoundland, for a period of five years from *July 10, 1956*. 1957. *Apr. 4*, Joel K. Smith: to be a Member representing the Province of Alberta, for a period of three years from *Apr. 13, 1957*, *vice* M. E. LaZerte, resigned. 1958. *Feb. 13*, Reverend Antoine d'Eschambault, D.S.T., D.J.C.: to be Chairman of the Board, *vice* Professor Fred Landon, resigned.

Income Tax Appeal Board.—1957. *May 9*, Maurice Boisvert: to be a Member.

International Commission for the Northwest Atlantic Fisheries.—1957. *Feb. 28*, J. Howard MacKichan, General Manager, United Maritime Fishermen, Limited, Halifax, N.S.: to be again a Commissioner, for a further period of two years from *Mar. 8, 1957*.

International Joint Commission.—1958. *Jan. 2*, Donald McGregor Stephens, Chairman and General Manager of the Hydro-Electric Board for the Province of Manitoba: to be a Commissioner for a period of one year, effective *Jan. 1, 1958*, *vice* George Spence.

International Pacific Salmon Fisheries Commission.—1956. *Sept. 20*, Fred D. Mathers: to be a Member for a period of two years, effective *Sept. 20, 1956*, *vice* H. R. MacMillan, resigned.

International Whaling Commission.—1957. *Mar. 7*, George R. Clark, Deputy Minister of Fisheries: to represent the Government of Canada, *vice* Alistair Fraser.

Medical Council of Canada.—1956. *Sept. 20*, Dr. Neil Macdonald; Dr. Léon Gérin-Lajoie, and Dr. Joseph E. Josephson: to be Members for a term of four years, with effect from *Nov. 7, 1956*.

National Battlefields Commission.—1956. *Dec. 19*, Mostyn Lewis and R. H. Price: to be Members.

National Film Board.—1957. *July 18*, Charles Stein, Q.C., Under Secretary of State: to be a Member.

National Harbours Board.—1957. *Dec. 23*, Maurice-Georges Archer, who was appointed a Member and Vice-Chairman for a term of ten years effective *July 1, 1952*: to be Chairman for the balance of the said term, effective *Feb. 1, 1958*. 1958. *Jan. 16*, Robert James Rankin: to be a Member and to be Vice-Chairman effective *Feb. 1, 1958*.

National Library Advisory Council.—1957. *Feb. 21*, The following persons to be Members for a further term expiring *Dec. 31, 1960*: Isabel Cummings, H. Newell, and Peter Grossman. Jules Bazin: to complete the term of the late Paul Houde, expiring *Dec. 31, 1957*.

National Research Council.—1957. *Jan. 3*, Dr. F. T. Rosser: to be Vice-President (Administration), effective *Feb. 1, 1957*. *Feb. 7*, Dr. R. F. Farquharson, M.B.E., Head of the Department of Medicine, University of Toronto: to be Vice-President (Scientific), effective *Apr. 1, 1957*. *Apr. 11*, The following persons to be Members for a term of three years, from *Apr. 1, 1957*, to *Mar. 31, 1960*: Gordon G. Cushing, Executive Vice-President, Canadian Labour Congress, Ottawa, Ont.; Henry Gaudet, Director, École Polytechnique, Montreal, Que.; Abel Gauthier, Vice-Dean, Faculty of Science, University of Montreal, Montreal, Que.; Pierre-R. Gendron, Dean, Faculty of Science, University of Ottawa, Ottawa, Ont.; Paul-Antoine Giguère, Head of the Department of Chemistry, Laval University, Quebec, Que.; L. H. J. Shebeski, Professor of Plan Science, University of Manitoba, Winnipeg, Man.; and F. J. Toole, Head of the Department of Chemistry, and Dean of the Graduate School, University of New Brunswick, Fredericton, N.B.

Northern Ontario Pipe Line Crown Corporation.—1956. *July 5*, Victor G. Bartram: to be General Manager, effective *July 10, 1956*. *Feb. 21*, Jean Claude Lessard; John W. McKee and Dr. Chester S. Walters: to be Directors replacing Marc Boyer, Richard G. Johnson, and Mitchell W. Sharp, effective *Mar. 1, 1957*.

Northwest Territories.—**1956.** Dec. 28, D. M. Stewart: to be a Small Debts Official for the Northwest Territories, with Headquarters at Hay River, N.W.T. **1957.** Feb. 14, E. H. Essex: to be a Small Debts Official for the Northwest Territories with Headquarters at Fort Smith, N.W.T. June 13, Wilfrid George Brown, Chief of the Territorial Division of the Department of Northern Affairs and National Resources: to be a Member of the Council of the Northwest Territories and Deputy Commissioner, *vice* F. J. C. Cunningham, effective June 18, 1957. Aug. 7, Louis de la Chesnaye Audette, Chairman, Canadian Maritime Commission; Charles Mills Drury, Executive; Hubert Murray Jones, Director of Indian Affairs Branch, Department of Citizenship and Immigration; and Leonard Hanson Nicholson, Commissioner of the Royal Canadian Mounted Police: to be Members of the Council.

Parliamentary Library.—**1956.** Oct. 11, Jean-Guy Sylvestre: to be Associate Parliamentary Librarian, effective Oct. 13, 1956.

St. Lawrence Seaway Authority.—**1957.** May 27, Charles Gavsie: to be President for the remainder of his term as a Member, effective June 1, 1957. Jean-Claude Lessard: to be a Member for a term of ten years, effective July 1, 1957. Dec. 23, Bennett J. Roberts, Chairman of the National Harbours Board: to be President for a term of eighteen months, effective Feb. 1, 1958, *vice* Charles Gasvie, resigned.

Tariff Board.—**1957.** Apr. 15, George Alexander Elliott: to be a Member for a period of ten years, effective Apr. 23, 1957. Apr. 25, W. W. Buchanan: to be a Vice-Chairman, for the remainder of his term as Member of the Board.

Vocational Training Advisory Council.—**1956.** July 26, Mrs. Rex Eaton, President, The National Council of Women of Canada: to be a Member, representing women, *vice* Mrs. A. Turner Bone, resigned. Dec. 13, The following persons to be Members and Alternate Members for the period expiring Dec. 1, 1959: Member—W. F. McMullen, Canadian Manufacturers' Association, representing employers; Alternate Member—L. M. Schram, Canadian Manufacturers' Association, representing employers, Alternate for W. F. McMullen; Member—N. S. Dowd, Canadian Labour Congress, representing organized labour; Alternate Member—A. L. Hepworth, Canadian Brotherhood of Railway Employees and other Transport Workers, representing organized labour, Alternate for N. S. Dowd; Member—E. K. Ford, Director of Vocational Education, Nova Scotia, representing the Province of Nova Scotia; Alternate Member—W. D. Mills, Assistant Director of Vocational Education, Nova Scotia, representing the Province of Nova Scotia, Alternate for E. K. Ford; Member—T. D. Anderson, Dominion Secretary, Canadian Legion, representing veterans; Alternate Member—Dr. Robert Westwater, representing veterans, Alternate for T. D. Anderson; Member—J. W. McNutt, Director of Vocational Education, New Brunswick, representing the Province of New Brunswick; Alternate Member—Dr. F. E. MacDiarmid, Director and Chief Superintendent, Department of Education, New Brunswick, representing the Province of New Brunswick, Alternate for J. W. McNutt; Member—J. A. Doyle, Director of Technical Education, Saskatchewan, representing the Province of Saskatchewan; Alternate Member—W. W. Sharp, Department of Education, Saskatchewan, representing the Province of Saskatchewan, Alternate for J. A. Doyle; Member—J. A. Ferguson, Canadian Federation of Agriculture, representing agriculture; Alternate Member—David Kirk, Secretary, Canadian Federation of Agriculture, representing agriculture, Alternate for J. A. Ferguson.

Unemployment Insurance Commission.—**1956.** Nov. 1, J.-G. Bisson: to be again Chief Commissioner, effective Sept. 30, 1956. Dec. 13, Robert J. Tallon: to be again a Commissioner for a term of one year, effective from Dec. 31, 1956. **1957.** Hon. Mr. Justice John D. Kearney, a Judge of the Exchequer Court of Canada: to be Umpire for the purposes of the Unemployment Insurance Act, *vice* Hon. Mr. Justice J. C. A. Cameron, resigned, effective Jan. 15, 1957. Apr. 4, Clifford A. L. Murchison, Q.C.: to be again a Commissioner, for a term of five years effective June 1, 1957.

PART IV.—FEDERAL LEGISLATION 1956-57

This classified list of federal legislation has been compiled from the Statutes. Naturally in summarizing material of this kind it is not always possible to convey the full implication of the legislation. The reader who is interested in any specific Act is therefore referred to the Statutes of Canada in the given volume and chapter.

**Legislation of the Third Session of the Twenty-Second Parliament,
Jan. 10 to Aug. 14, 1956**

| Subject, Chapter and Date of Assent | Synopsis |
|---|--|
| 4-5 Elizabeth II | |
| Agriculture— | |
| 1 Mar. 7 | <i>Prairie Grain Producers Interim Financing Act, 1956</i> , provides short-term credit for grain producers in the Prairie Provinces to meet temporary financial difficulties arising from inability to deliver grain to elevators. |
| 2 Mar. 7 | <i>Temporary Wheat Reserves Act</i> provides for payment of carrying costs on temporary wheat reserves owned by the Canadian Wheat Board, if over 178,000,000 bu. at commencement of the crop year. |
| 14 June 12 | <i>An Act to amend the Live Stock and Live Stock Products Act</i> includes minor amendments to the poultry production Part. |
| 17 June 26 | <i>An Act to amend the Canadian Farm Loan Act</i> changes the capital structure of the Canadian Farm Loan Board and certain of its financial operations; increases the amount of individual loans procurable and the period of repayment; and eliminates supplementary advances formerly provided in the form of second mortgages. |
| 24 July 11 | <i>An Act to amend the Farm Improvement Loans Act</i> extends the provisions of the Act to Mar. 31, 1959, increases the maximum individual loan by bank to borrower from \$4,000 to \$5,000 and continues the federal guarantee to an aggregate of \$300,000,000. |
| Finance— | |
| 3 Mar. 22 | <i>Appropriation Act No. 1, 1956</i> , grants certain sums of money for the public service of the financial year ending Mar. 31, 1957. |
| 4 Mar. 22 | <i>Appropriation Act No. 2, 1956</i> , grants certain sums of money for the public service of the financial year ending Mar. 31, 1956. |
| 13 June 12 | <i>Appropriation Act No. 3, 1956</i> , provides certain sums of money for the public service of the financial year ending Mar. 31, 1957. |
| 15 June 12 | <i>An Act to amend the Tariff Board Act</i> increases the membership of the Board from three to five. |
| 16 June 26 | <i>Appropriation Act No. 4, 1956</i> , provides supplementary sums for the public service of the financial year ending Mar. 31, 1957. |
| 23 July 11 | <i>Canadian National Railways Financing and Guarantee Act, 1956</i> , provides moneys to meet certain capital expenditures during the calendar year 1956 and to guarantee certain securities to be issued by the Canadian National Railway Company. |
| 25 July 11 | <i>An Act to amend the Industrial Development Bank Act</i> , in addition to certain administration changes, enlarges the classes of loans that may be made under the Act and raises the limit on the aggregate amount of loans exceeding \$200,000 from \$50,000,000 to \$75,000,000. |
| 27 July 31 | <i>Appropriation Act No. 5, 1956</i> , grants certain sums of money for the public service of the financial year ending Mar. 31, 1957. |
| 29 July 31 | <i>The Federal-Provincial Tax-Sharing Arrangements Act</i> , authorizing the Minister of Finance of the Government of Canada to make payments to and enter into fiscal agreements with the Governments of the Provinces, provides the necessary authority for new financial arrangements with the provinces to come into effect on Apr. 1, 1957. |
| 32 Aug. 14 | <i>Appropriation Act No. 6, 1956</i> , grants certain sums of money for the public service of the financial year ending Mar. 31, 1957. |
| 44 Aug. 14 | <i>An Act to amend the Public Service Superannuation Act</i> extends the application of certain provisions of the Act to certain persons or groups of persons not previously eligible for benefit. |

**Legislation of the Third Session of the Twenty-Second Parliament,
Jan. 10 to Aug. 14, 1956—continued**

| Subject, Chapter and Date of Assent | Synopsis |
|---|--|
| Finance—concl. | |
| 46 Aug. 14 | <i>An Act to amend the Small Loans Act</i> increases the maximum amount of a loan by money-lenders and small loans companies to \$1,500 from \$500; permits the securing of more than one loan by a borrower; and amends certain interest charges and repayment regulations. |
| Insurance— | |
| 28 July 31 | <i>An Act to amend the Canadian and British Insurance Companies Act</i> raises the amount of the deposit required for a certificate of registry to transact life or fire insurance and makes amendments <i>re</i> dates for filing of statements. |
| 30 July 31 | <i>An Act to amend the Foreign Insurance Companies Act</i> raises the amount of the deposit required for a certificate of registry to transact life or fire insurance and makes amendments <i>re</i> dates for filing of statements. |
| Justice— | |
| 8 June 7 | <i>An Act to amend the Judges Act</i> authorizes the payment of salaries to four additional judges of the Superior Court of Quebec and two additional judges of the Supreme Court of British Columbia. |
| 45 Aug. 14 | <i>An Act to amend the Royal Canadian Mounted Police Act</i> provides for the payment and recovery of succession duties payable on pensions and allowances; extends in certain cases and under certain conditions the time and service that may be counted for pension purposes; and provides funds for additional liability to RCMP pensions account resulting from general pay increases. |
| 48 Aug. 14 | <i>An Act to amend the Supreme Court Act and the Criminal Code</i> revises regulations <i>re</i> the appointment and service of the Registrar and Deputy Registrar of the Supreme Court and of other staff; other amendments deal with appeals to the Supreme Court. |
| Labour— | |
| 26 July 11 | <i>The Unemployment Assistance Act</i> authorizes contributions by Canada to be paid out of the Consolidated Revenue Fund, in respect of unemployment assistance costs in the provinces. |
| 38 Aug. 14 | <i>The Female Employees Equal Pay Act</i> stipulates that female employees shall be paid at a rate equal to that paid male employees whenever the work is identical or substantially the same and the work is done by, or for, the Federal Government, except where the difference of rates of pay is based on length of service or seniority, geographical area of employment or any factor other than sex. Enforcement procedure is defined and penalties laid down. |
| 50 Aug. 14 | <i>An Act to amend the Unemployment Insurance Act</i> extends the provisions of the Act to all persons engaged in the fishing industry; other amendments ease the requalifying requirement and adjust the provisions for computing the duration of benefit for such claimants. |
| National Revenue— | |
| 5 June 7 | <i>The Canada-Denmark Income Tax Agreement Act, 1956</i> , implements an agreement between Canada and Denmark for the avoidance of double taxation and the prevention of fiscal evasion with respect to taxes on income. |
| 33 Aug. 14 | <i>The Canada-Germany Income Tax Agreement Act, 1956</i> , implements an agreement between Canada and the Federal Republic of Germany for the avoidance of double taxation and the prevention of fiscal evasion with respect to taxes on income. |
| 35 Aug. 14 | <i>An Act to amend the Canada-United States of America Tax Convention Act, 1943</i> , further modifies and supplements the Convention and accompanying protocol of Mar. 4, 1942, for the avoidance of double taxation and the prevention of fiscal evasion in the case of income taxes. |
| 36 Aug. 14 | <i>An Act to amend the Customs Tariff</i> gives effect to Budget resolutions on the Customs Tariff. |
| 37 Aug. 14 | <i>An Act to amend the Excise Tax Act</i> gives effect to Budget resolutions on Excise Tax; of particular interest is the imposition of a tax on special editions of non-Canadian periodicals issued to the public in Canada. |
| 39 Aug. 14 | <i>An Act to amend the Income Tax Act</i> gives effect to Budget resolutions on Income Tax and contains over thirty revisions, deletions and additions pertaining to the Act. |

**Legislation of the Third Session of the Twenty-Second Parliament,
Jan. 10 to Aug. 14, 1956—concluded**

| Subject, Chapter and Date of Assent | Synopsis |
|---|--|
| Transportation and Communications— | |
| 7 June 7 | <i>An Act to amend the Department of Transport Act</i> advances to May 31, 1958, the expiry date of Section 6A of the Act concerning control of transport of goods in bulk. |
| 11 June 7 | <i>An Act to amend the St. Lawrence Seaway Authority Act</i> empowers the Authority to construct, maintain and operate international bridges and incidental works and to procure the incorporation of any necessary subsidiary companies for the purpose. |
| 12 June 7 | <i>An Act to amend the Trans-Canada Highway Act</i> extends the highway construction period to Dec. 31, 1960, with federal contributions to May 31, 1961; increases federal contributions to 90 p.c. for certain sections of the highway; and increases the total amount of federal expenditure on construction from \$150,000,000 to \$250,000,000. |
| 19 June 26 | <i>An Act respecting the construction of a line of railway in the Province of New Brunswick by the Canadian National Railway Company, from a point at or near Bartibog in a westerly direction to the Tomogonops River in the vicinity of Little River Lakes</i> , provides for the construction of such railway and its financing. |
| 34 Aug. 14 | <i>An Act to amend the Canada Shipping Act</i> includes revisions mainly of a technical character which bring provisions of the Act in line with modern marine practice; it approves the International Convention for the Prevention of Pollution of the Sea by Oil, 1954. |
| 41 Aug. 14 | <i>An Act to amend the Navigable Waters Protection Act</i> provides for the simplification of procedure in connection with the building of works on navigable waters. The Minister of Public Works rather than the Governor in Council is authorized to approve plans and sites, and construction may be started prior to such approval with the consent of the Minister. |
| 43 Aug. 14 | <i>An Act to amend the Post Office Act</i> provides for the transfer of a contract for the conveyance of mail under certain circumstances. |
| 47 Aug. 14 | <i>An Act to amend the St. Lawrence Seaway Authority Act</i> further amends the Act re the building of international bridges. |
| 49 Aug. 14 | <i>An Act to amend the Telegraphs Act</i> provides for the control of submarine cables terminating in or passing through Canadian territory. |
| Miscellaneous— | |
| 6 June 7 | <i>An Act to amend the Canadian Citizenship Act</i> effects changes regarding the granting of citizenship to children and to adults in certain circumstances; also amends certain items of procedure and regulations. |
| 9 June 7 | <i>An Act to amend the National Housing Act, 1954</i> , effects important amendments concerning the redevelopment of blighted areas in cities and increases the federal contribution to municipalities for clearance of substandard areas; the maximum amount of all loans under the Act is increased from \$2,000,000,000 to \$4,000,000,000. |
| 10 June 7 | <i>The Northern Ontario Pipe Line Crown Corporation Act</i> establishes the Corporation and defines its purposes, powers and financing. |
| 18 June 26 | <i>The Canadian Forces Act, 1956</i> , makes minor revisions to the Defence Services Pension Act and the National Defence Act. |
| 20 June 26 | <i>An Act to amend the Emergency Gold Mining Assistance Act</i> extends the application of the Act to the end of 1958. |
| 21 June 26 | <i>An Act to amend the Veterans' Business and Professional Loans Act</i> includes a minor adjustment with respect to bank losses as a result of such loan. |
| 22 July 11 | <i>An Act to amend the Canada Land Surveys Act</i> provides for an increase in remuneration for the members and secretary of the Board as well as in the fees paid to special examiners. |
| 31 July 31 | <i>An Act to amend the National Parks Act</i> withdraws certain lands described in the Schedule from Cape Breton Highlands National Park. |
| 40 Aug. 14 | <i>An Act to amend the Indian Act</i> effects many changes in connection with the administration of the Act; the maximum amount of money provided for loans to Indians under the Act is increased to \$1,000,000 from \$350,000. |
| 42 Aug. 14 | <i>An Act to amend the Northwest Territories Power Commission Act</i> changes the title of the Act to the Northern Canada Power Commission Act and authorizes the Commission to supply public utilities other than electric power to municipalities, organizations, corporations or individuals within the Yukon and Northwest Territories; a fund is established to finance investigations of possible power developments in the North. |

**Legislation of the Fourth Session of the Twenty-Second Parliament,
Nov. 26, 1956 to Jan. 8, 1957**

| Subject, Chapter and Date of Assent | Synopsis |
|---|--|
| 5-6 Elizabeth II | |
| Finance— | |
| 1 Nov. 26 | <i>Appropriation Act No. 7, 1956</i> , grants certain sums of money for the public service of the financial year ending Mar. 31, 1957. |

**Legislation of the Fifth Session of the Twenty-Second Parliament,
Jan. 8, 1957 to Apr. 12, 1957**

| Subject, Chapter and Date of Assent | Synopsis |
|---|---|
| 5-6 Elizabeth II | |
| Agriculture— | |
| 5 Mar. 28 | <i>An Act to amend the Canadian Farm Loan Act</i> increases the authorized capital stock. |
| 6 Mar. 28 | <i>An Act to amend the Canadian Wheat Board Act</i> extends the provisions of the Act to Aug. 1, 1962. |
| 15 Apr. 12 | <i>An Act to amend the Agricultural Products Marketing Act</i> grants authority to provincial boards to impose levies and charges for the purpose of equalizing returns among producers of any agricultural product subject to marketing regulations. |
| 27 Apr. 12 | <i>The Fertilizers Act</i> provides for the regulation and control of agricultural fertilizers. This Act repeals R.S. 1952, c. 115. |
| 32 Apr. 12 | <i>An Act to amend the Prairie Farm Assistance Act</i> increases the awards and the levy authorized by the Act. |
| 33 Apr. 12 | <i>An Act to amend the Prairie Grain Producers Interim Financing Act, 1956</i> , makes the necessary revisions in dates to extend the application of the Act to June 1, 1958; the rate of interest on loans is modified and the maximum amount of loan increased from \$1,500 to \$3,000. |
| Finance— | |
| 1 Feb. 6 | <i>Appropriation Act No. 1, 1957</i> , grants certain sums of money for the public service of the financial year ending Mar. 31, 1957. |
| 2 Mar. 28 | <i>Appropriation Act No. 2, 1957</i> , grants certain sums of money for the public service of the financial year ending Mar. 31, 1957. |
| 10 Mar. 28 | <i>An Act to amend the Municipal Grants Act</i> increases the grants on federal property up to the full tax equivalent. |
| 12 Mar. 28 | <i>An Act to amend the Quebec Savings Banks Act</i> includes changes in cash reserves, investments, loans and advances, charitable funds, etc. |
| 13 Mar. 28 | <i>Appropriation Act No. 3, 1957</i> , grants certain sums of money for the public service of the financial year ending Mar. 31, 1958. |
| 14 Mar. 28 | <i>Appropriation Act No. 4, 1957</i> , grants certain sums of money for the public service of the financial year ending Mar. 31, 1958. |
| 19 Apr. 12 | <i>The Canadian National Railways Financing and Guarantee Act, 1957</i> , authorizes moneys to meet certain capital expenditures of the Canadian National Railways System and the guarantee of certain securities to be issued by the Company. |
| 20 Apr. 12 | <i>An Act to amend the Currency, Mint and Exchange Fund Act</i> changes the remedy allowance for ten ten-cent coins from 3.00 grains to 15.00 grains. |

**Legislation of the Fifth Session of the Twenty-Second Parliament,
Jan. 8, 1957 to Apr. 12, 1957—continued**

| Subject, Chapter and Date of Assent | Synopsis |
|---|--|
| Finance—concl. | |
| 37 Apr. 12 | <i>An Act to amend the United Kingdom Financial Agreement Act, 1948</i> , approves the Agreement between the Government of Canada and the Government of the United Kingdom which amends the Financial Agreement between the two Governments signed Mar. 6, 1956, by providing for deferment of annual instalments of principal and interest in place of the Article in the original Agreement providing for waiver of interest. |
| 39 Apr. 12 | <i>Appropriation Act No. 5, 1957</i> , grants certain sums of money for the public service of the financial year ending Mar. 31, 1958. |
| Fisheries— | |
| 11 Mar. 28 | <i>The Pacific Salmon Fisheries Act</i> implements a convention between Canada and the United States for the protection and extension of the sockeye salmon fisheries in the Fraser River System. |
| 31 Apr. 12 | <i>The Pacific Fur Seals Convention Act</i> provides implementing legislation to carry out Canada's obligation under the Interim Convention on Conservation of North Pacific Fur Seals entered into by the Governments of Canada, Japan, the Union of Soviet Socialist Republics and the United States of America. This legislation replaces the Pelagic Sealing (Provisional Agreement) Act passed in 1948, implementing an agreement between Canada and the United States. |
| Justice— | |
| 24 Apr. 12 | <i>An Act to amend the Exchequer Court Act</i> provides for a revision of salary for the Registrar of the Exchequer Court. |
| 30 Apr. 12 | <i>An Act to amend the Judges Act</i> increases by one the number of county judges for Ontario and amends the Act in line with changes in the Judicature Act of Nova Scotia. |
| 34 Apr. 12 | <i>An Act to amend the Prisons and Reformatories Act</i> authorizes the transfer of prisoners from any common gaol of British Columbia to the new Haney Correctional Institution and vice versa. |
| 35 Apr. 12 | <i>An Act to amend the Royal Canadian Mounted Police Act</i> provides that for purpose of determining liability in any action or proceeding by or against Her Majesty, a person who was at any time a member of the Force shall be considered to have been at such time a servant of the Crown. |
| 36 Apr. 12 | <i>An Act to amend the Territorial Lands Act</i> substitutes for stipendiary magistrate, a judge of the Court to deal with matters arising in the Northwest Territories and the Yukon Territory. |
| National Revenue— | |
| 16 Apr. 16 | <i>The Canada-Netherlands Income Tax Agreements Act, 1957</i> , implements an agreement between Canada and the Netherlands for the avoidance of double taxation and the prevention of fiscal evasion with respect to taxes on income. |
| 17 Apr. 12 | <i>The Canada-South Africa Death Duties Agreement Act, 1957</i> , implements an agreement between Canada and South Africa for the avoidance of double taxation and the prevention of fiscal evasion with respect to death duties. |
| 18 Apr. 12 | <i>The Canada-South Africa Income Tax Agreement Act, 1957</i> , implements an agreement between Canada and the Union of South Africa for the avoidance of double taxation and the prevention of fiscal evasion with respect to taxes on income. |
| 21 Apr. 12 | <i>An Act to amend the Customs Tariff</i> gives effect to Budget resolutions on the Customs Tariff. |
| 22 Apr. 12 | <i>An Act to amend the Dominion Succession Duty Act</i> provides, among other amendments, that the value of any property included in a succession to a charitable organization in Canada shall be deductible in determining the aggregate net value and dutiable value of a succession. |
| 25 Apr. 12 | <i>An Act to amend the Excise Act</i> reduces the amount of duty on Canadian raw leaf tobacco. |
| 26 Apr. 12 | <i>An Act to amend the Excise Tax Act</i> gives effect to Budget resolutions on the Excise Act. |

**Legislation of the Fifth Session of the Twenty-Second Parliament,
Jan. 8, 1957 to Apr. 12, 1957—concluded**

| Subject, Chapter and Date of Assent | Synopsis |
|---|--|
| National Revenue— concl. | |
| 29 Apr. 12 | <i>An Act to amend the Income Tax Act</i> gives effect to Budget resolutions on the Income Tax Act. Among other amendments, provision is made for the amount of a taxpayer's donations to charitable organizations in a year in excess of the amount deductible under the Act to be carried forward to the following year. A new Section permits the deduction of premiums paid under a registered retirement savings plan. |
| Trade— | |
| 7 Mar. 28 | <i>An Act to amend the Export and Import Permits Act</i> advances to July 31, 1960, the date of expiration of the Act. |
| 8 Mar. 28 | <i>An Act to amend the Export Credits Insurance Act</i> provides insurance for certain additional transactions and permits the Corporation, for income tax purposes, to deduct credits to the underwriting reserve. |
| Transportation— | |
| 4 Mar. 28 | <i>An Act to amend the Canada Shipping Act</i> makes a minor revision <i>re</i> penalty for violation of Part VII of the Act. |
| 9 Mar. 28 | <i>An Act to amend the Merchant Seamen Compensation Act</i> revises the rates of compensation payable to disabled seamen and dependants of deceased seamen under the Act. |
| 38 Apr. 12 | <i>The Windsor Harbour Commissioners Act</i> establishes a corporation under the name of Windsor Harbour Commissioners to manage and develop the harbour at the city of Windsor, Ont. |
| Miscellaneous— | |
| 3 Mar. 28 | <i>The Canada Council Act</i> provides for the establishment of a Canada Council for the encouragement of the arts, humanities and social sciences, through awards, grants, scholarships in support of study, research and publication of such works, and through exhibitions, performances and exchange with other countries. It provides also for grants to universities and similar institutions of higher learning with respect to building construction projects. |
| 23 Apr. 12 | <i>An Act to amend the Eastern Rocky Mountain Forest Conservation Act</i> amends the Agreement between Canada and the Province of Alberta respecting the conservation of the forests on the east slope of the Rocky Mountains. |
| 28 Apr. 12 | <i>Hospital Insurance and Diagnostic Services Act</i> authorizes contribution by Canada for programs, administered by the provinces, providing hospital insurance and laboratory and other services in aid of diagnoses to commence when at least six provinces, containing at least half the population of Canada, have entered into such agreements and qualified for receipt of such contributions. |

PART V.—CANADIAN CHRONOLOGY

Events in the general chronology from 1497 to 1866 are given in the 1951 Year Book, pp. 46-49; from 1867 to 1953 in the 1954 Year Book, pp. 1259-1264; for 1954 in the 1955 Year Book, pp. 1329-1330; and for 1955 in the 1956 edition, pp. 1233-1234. References regarding federal and provincial elections or changes in legislatures or ministries are not included in the following listing but may be found in Chapter II on Constitution and Government and in the Appendix.

1956. *Jan. 11*, Mrs. Ann Shipley first woman in Canadian Parliamentary history to move the Address in Reply to the Speech from the Throne. *Feb. 3-8*, Rt. Hon. Sir Anthony Eden, Prime Minister of the United Kingdom addressed joint session of the Senate and House of Commons during official visit to Ottawa. *Feb. 3*, Merger of the Imperial Bank of Canada and Barclays Bank (Canada) as the Imperial Bank of Canada formally approved by the Federal Government. *Feb. 14*, End of 148-day strike involving 17,000 General Motors employees, the costliest strike in Canadian history. *Mar. 4*, President Giovanni Gronchi of Italy addressed joint session of the Senate and House of Commons during official visit to Ottawa. *Mar. 9*, Federal-Provincial tax conference opened at Ottawa; no agreement reached. *Mar. 23*, Pakistan formally became the Islamic Republic of Pakistan. *Mar. 26-27*, Rt. Hon. Louis S. St. Laurent, Prime Minister of Canada, Dwight D. Eisenhower, President of the United States, and Adolfo Ruiz Cortines, President of Mexico, met at White Sulphur Springs, Va., to discuss matters of common interest. *Apr. 23-27*, Merger of the Trades and Labour Congress of Canada and the Canadian Congress of Labour as the Canadian Labour Congress, at the founding convention in Toronto, Ont. *May 4-5*, NATO Council in Paris, France, named Hon. L. B. Pearson of Canada with representatives from Italy and Norway to study future NATO developments. *May 26*, Term of office of the Rt. Hon. Vincent Massey as Governor General of Canada extended for one year. *June 4-5*, The President of the Republic of Indonesia, His Excellency Dr. Achmed Sukarno, addressed the Canadian Parliament. *June 6-19*, The Prime Minister of New Zealand, the Rt. Hon. S. J. Holland, visited Canada. *June 19*, Canada's recognition of the independence of Tunisia and Morocco. *June 18*, Queen Elizabeth reviewed 300 Victoria Cross holders from the Commonwealth on centenary of the decoration in London, England. Thirty-six Canadian V.C. holders were present. *June 27-July 6*, Commonwealth Prime Ministers Conference in London, England, to review current state of international affairs. The Canadian delegation was led by the Prime Minister, the Rt. Hon. Louis S. St. Laurent. *July 25-29*, The Prime Minister of Australia, the Rt. Hon. R. G. Menzies and his wife, Dame Pattie Menzies, were guests of Canada. *Aug. 14*, The 3rd Session of the 22nd Parliament closed; the longest sitting (152 days) since 1903. *Aug. 18*, The Alexander Graham Bell Museum dedicated at Baddeck, N.S. *Aug. 23*, The opening session of the first Northwest Territories Council to be held above the Arctic Circle, at the new townsite of Aklavik. *Sept. 19*, Ontario Premier Leslie M. Frost turned the first sod for Canada's atomic power station at Des Joachims on the Ottawa River. *Sept. 20*, The Hon. George A. Drew resigned the leadership of the Progressive Conservative Party. *Sept. 24*, Atomic Energy Agreement signed in Washington by Canada, the United Kingdom and the United States

for interchanging rights in inventions and discoveries in the atomic energy field on which patents were held or applied for by one or more of the other countries as of Nov. 15, 1955. *Sept. 25*, First transatlantic three-way telephone cable opened between London, New York and Ottawa. *Nov. 1-10*, Emergency session of the United Nations General Assembly called at New York in regard to the Middle East crisis and the crisis in Hungary. *Nov. 5*, UN Assembly approved resolution sponsored by Canada, Colombia and Norway for a United Nations police force; Major-General E. L. M. Burns of Canada appointed Chief of the United Nations Command to organize an international force. *Nov. 12*, Rt. Hon. Louis S. St. Laurent announced creation of Canada Council for the Encouragement of the Arts, Humanities and Social Sciences. *Nov. 22*, Gen. Alfred Gruenther, just retired from post of Supreme Commander of NATO, arrived in Ottawa. *Nov. 24*, First 20 Canadians to join UN Emergency Force arrived in Egypt. *Nov. 26*, The Prime Minister of Ceylon, the Hon. S. W. R. D. Bandaranaike, visited Ottawa as guest of the Government of Canada. *Nov. 28*, Canada approved a vote of \$1,000,000 to the victims of events in Hungary and free passage to Canada for Hungarian refugees. *Nov. 29*, UN Force occupied buffer zone between Anglo-French and Egyptian forces on Suez. *Dec. 11-14*, The Ministerial Meeting of the North Atlantic Council met in Paris; Canada represented by the Hon. L. B. Pearson and the Hon. Ralph O. Campney. *Dec. 14*, John G. Diefenbaker elected leader of the Progressive Conservative Party. *Dec. 19*, Canadian-German air training agreement announced; arrangements made for training in Canada of 360 German aircrew for the F86 Sabres allotted the Federal Republic of Germany. *Dec. 21-23*, The Prime Minister of India, Mr. Jawaharlal Nehru, visited Ottawa.

1957. *Jan. 1*, The western section from James Bay to the Peace River District of the Mid-Canada radar warning line came into operation over a distance of 3,000 miles. *Jan. 1*, Two Canadians honoured in the Queen's New Year List—General Loewen and Sqdn. Ldr. Frederick Drury. *Jan. 2-10*, Strike of CPR employees halting operations on 17,000 miles of track. *Jan. 11*, Canadian aircraft carrier *Magnificent* with troops and supplies for UNEF reached Port Said. *Mar. 4*, The Prime Minister of France, His Excellency Guy Mollet, addressed the Parliament of Canada. *Mar. 5-6*, The United Kingdom Colony of the Gold Coast became a free and independent member of the Commonwealth named Ghana; Canada was represented at the ceremonies by Hon. George Prudham, Minister of Mines and Technical Surveys. *Mar. 6*, The Supreme Court of Canada nullified the Quebec Padlock Law. *Mar. 7*, UNEF took over the Gaza Strip in the Middle East. *Mar. 11*, The 11th Session of the United Nations General Assembly adjourned. *Mar. 18*, Disarmament

conference, including United States, United Kingdom, France, Russia and Canada, opened at London, England. *Mar. 25-26*, Prime Minister Macmillan of the United Kingdom, and Prime Minister St. Laurent of Canada, met in Bermuda to discuss common problems concerning the Middle East, Far East, NATO, European co-operation, the reunification of Germany, and defence. *May 2-3*, NATO Ministerial Meeting held in Bonn, Germany to discuss problems of security, political developments within and without the NATO area, events in the Middle East and Hungary and defence of the Atlantic Alliance. *June 13*, W. O. Frederick W. Humberstone, (RCAF) Sarnia, Ont., listed in the Queen's Birthday Honour List as a Member of the Order of the British Empire. *June 15*, Canadian Federation of Mayors and Municipalities Conference held at Montreal, Que. *June 21*, The Hon. Ellen Fairclough appointed Secretary of State for Canada, the first woman to hold a portfolio in a Canadian Cabinet and the second woman Cabinet Minister in the history of the Commonwealth. *June 26-July 5*, Prime Minister Diefenbaker attended the Conference of Commonwealth Prime Ministers in London, England. *June 25*, The Hon. George A. Drew appointed as Canada's High Commissioner to the United Kingdom, effective Aug. 1, 1957. *July 1*, Official opening of the International Geophysical Year extending to January 1959. *July 3*, Agreement signed between Canada and the United States for the conservation and regulation of the pink salmon fisheries of the Juan de Fuca-Fraser River area of the Pacific Coast. *July 18*, Ambassador Ahmet Cavat Ustun of Turkey became the Dean of the Diplomatic Representatives in Ottawa, succeeding former Ambassador A. H. J. Lovink of the Netherlands, who returned to The Hague on reassignment. *July 22*, Opening of the hearings of the Royal Commission reviewing Newfoundland's 1949 terms of Union with Canada. *July 27*, United States Secretary of State John Foster Dulles visited Ottawa for informal talks with Prime Minister Diefenbaker. *July 31*, The Distant Early Warning (DEW) radar line, a combined United States-Canada defence project, officially went into operation. *Aug. 1*, The Prime Minister of Australia, the Rt. Hon. Robert Menzies, arrived at Ottawa *en route* from England to Australia. Owen Sound, Ont., celebrated centenary; incorporated in 1857. Announcement by Defence Minister Peakes of the official formation of a Canada-United States Continental Air Defence Command (NORAD) to be commanded by Lt.-General Earl Partridge (USAF); deputy commander to be Air Marshal C. Roy Slemon (RCAF). *Aug 11*, Worst aircraft crash in Canadian aviation history occurred at Issoudun, near Quebec City, when a chartered aircraft returning to Canada from England with veterans and their families crashed and burned, taking the lives of 79 persons. *Aug. 14-Sept. 25*, Canada was host at Ottawa to the 14th Congress of the Universal Postal Union presided over by the Canadian Postmaster-General, Walter J. Turnbull, and attended by members from 96 countries. *Aug. 21*, Prime Minister Diefenbaker announced \$150,000,000 loans program for low-cost housing. *Aug. 23*, Saskatchewan became the first Province to complete its share of the Trans-Canada Highway with the official opening by Premier T. C. Douglas, of that Province's 406-mile stretch of the Highway. *Aug. 24*, Navy Arctic patrol ship,

HMCS *Labrador*, became the first deep draught vessel to proceed through Bellot Strait. *Aug. 31*, The nine Malayan States became an independent federation within the British Commonwealth of Nations, with Yang Di-Pertuan Besar as the Head of the new Federation. *Sept. 3*, Prime Minister Diefenbaker welcomed more than 1,200 scientists of the International Union of Geodesy and Geophysics from over 50 countries meeting in Toronto, Ont. *Sept. 5-7*, Sixteen distinguished Canadians, Britons and Americans met at Dartmouth College, N.H., for discussion of mutual problems. The assembly was addressed by Prime Minister Diefenbaker. *Sept. 6*, Rt. Hon. Louis S. St. Laurent announced his retirement as leader of the Liberal Party. *Sept. 15*, The Queen appointed Prime Minister Diefenbaker a member of the Imperial Privy Council. *Sept. 16*, A four-month strike involving 6,500 employees of the Aluminum Company of Canada at Arvida, Que., ended with an agreement on wage rates between company officials and the National Federation of Metal Trades. *Sept. 23*, Prime Minister Diefenbaker addressed General Assembly of the United Nations for the first time. *Sept. 28*, Four-day Conference of Commonwealth Finance Ministers opened at Mont Tremblant, Que. *Oct. 4*, Canadian and United Kingdom Finance Ministers met in Ottawa to discuss trade. The U.S.S.R. successfully launched the first earth satellite—*Sputnik I*. *Oct. 12*, The Hon. Lester B. Pearson the first Canadian to be awarded the Nobel Peace Prize. *Oct. 12-16*, H.M. Queen Elizabeth and H.R.H. Prince Philip arrived in Ottawa beginning a nine-day visit to Canada and the United States. *Oct. 13*, Queen Elizabeth made her first television broadcast. *Oct. 14*, For the first time in Canadian history the reigning monarch officiated at the opening of the Parliament of Canada. *Oct. 15*, Queen Elizabeth officially opened construction of the 20-mile Queensway in Ottawa. *Oct. 16*, The Queen and Prince Philip left Ottawa for Jamestown, Va., U.S.A. *Oct. 16*, Royal Commission appointed to study Energy Resources in Canada; headed by Henry Borden. *Oct. 18*, Montreal Herald ceased publication on completion of 146th year. *Oct. 24*, United Nations celebrated 12th birthday since signing of the Charter in San Francisco in 1945. *Nov. 3*, NRU, one of the most advanced research and engineering test reactors in the world, started operation at Chalk River, Ont. *Nov. 14*, The Prime Minister announced \$125,000,000-plans for Maritime power development. *Nov. 22*, Delegation of 58 businessmen from all provinces headed by Trade and Commerce Minister Hon. Gordon Churchill left for the U.K. where they toured industrial areas and discussed furthering of trade between the two countries. *Nov. 22*, First vessel passed through Iroquois Lock, the first St. Lawrence Seaway lock to be completed. *Nov. 26*, Two-day Dominion-Provincial Conference at Ottawa ended with federal offer of grants-in-aid to Atlantic Provinces; boosts in unemployment relief. *Dec. 10*, Royal Commission appointed to study price spreads in farm and fisheries production; headed by Alberta University President, Dr. Andrew Stewart. *Dec. 16-19*, A special meeting of 15 heads of Government of NATO member countries convened in Paris, France, to discuss problems of the free world including the implications of the successful testing by the U.S.S.R. of an intercontinental ballistic missile. Canada was represented by Prime Minister

Diefenbaker, External Affairs Minister Smith, Defence Minister Pearkes and Finance Minister Fleming.

1958. *Jan. 1*, Celebrations to commemorate British Columbia's centennial year began. *Jan. 16*, Hon. Lester B. Pearson chosen as national leader of the Liberal Party at convention in Ottawa. *Jan. 17*, Royal Commission appointed to study dispute between the CPR and the Brotherhood of Locomotive Firemen and Enginemen, headed by Justice Kellock. *Jan. 28*, Queen Mother Elizabeth stopped briefly in Montreal and Vancouver on round-the-world tour. Mr. Justice Roy L. Kellock, a Judge of the Supreme Court of Canada since October 1944, resigned due to ill health. *Feb. 1*, United States Army successfully launched first American earth satellite—*Explorer*. *Feb. 4*, Kellock Royal Commission declared that firemen were unnecessary on diesel engines used by the CPR in its freight and yard operations. *Feb. 16-20*, The Canadian Conference on Education met in Ottawa under the Chairmanship of Dr. Wilder Penfield. *Feb. 17*, Rt. Hon. Louis S. St. Laurent, Prime Minister of Canada from 1948-1957, announced his retirement from active politics. *Mar. 25*, Successful maiden flight of the Canadian-built supersonic interceptor CF-105, described as the ultimate in manned fighter aircraft. *Apr. 5*, Ripple Rock in Seymour Narrows near Campbell River, B.C., worst underwater

shipping hazard on the West Coast, removed by underwater explosion. *Apr. 15-16*, Twenty-one-storey Queen Elizabeth Hotel in central Montreal first CNR hotel to be built in 20 years, officially opened. *Apr. 24-May 20*, Trade mission from the United Kingdom toured Canada exploring ways of expanding British sales in this country. *Apr. 30*, Celebration in Montreal of the 300th anniversary of the first school established in that city by Marguerite Bourgeoys in 1658. *May 28-June 4*, President Theodor Heuss of the Federal Republic of Germany made state visit to Canada, the first German Head of State ever to do so. *June 12*, Prime Minister Macmillan of the United Kingdom addressed a joint session of the Senate and the House of Commons during a visit to Ottawa. *June 21-July 9*, Celebrations in Quebec City marking the 350th anniversary on July 1 of its founding in 1608 by Samuel de Champlain. *July 1*, Canadians celebrated the 91st anniversary of Confederation. Blasting of the cofferdam holding back the waters of the St. Lawrence River touched off the creation of the 100-sq. mile St. Lawrence power pool, permitting, within a few days, the operation of the first generators of the new hydro development and the use of two seaway locks on the U.S. side of the River and of the Canadian seaway lock at Iroquois. Inauguration of Canada's new microwave relay system, completed from coast to coast.

PART VI.—STATISTICAL SUMMARY OF THE PROGRESS OF CANADA 1871-1956

Newfoundland entered Confederation in 1949 and figures for that Province have since been included with Canadian statistics as they have become available. Under each item in the following Summary, the inclusion of Newfoundland data for the first time is indicated by a black dot (•). If no dot is shown on any of the years from 1951-56 for a particular item, Newfoundland is excluded throughout. In some instances the symbol does not apply. Revisions of figures published in previous editions of the Year Book are not indicated in this Summary.

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA

NOTE.—The interpretation of the symbols used in the table will be found facing p. 1 of this volume.

| Item | | 1871 | 1881 | 1891 | 1901 | 1911 | 1921 |
|--|---|-----------|----------------------|-----------|---------------------|-----------|------------------------|
| Population—¹ | | | | | | | |
| 1 | Newfoundland..... No. | ... | ... | ... | ... | ... | ... |
| 2 | Prince Edward Island..... | 94,021 | 108,891 | 109,078 | 103,259 | 93,728 | 88,615 |
| 3 | Nova Scotia..... | 387,800 | 440,572 | 450,396 | 459,574 | 492,338 | 523,837 |
| 4 | New Brunswick..... | 285,594 | 321,233 | 321,263 | 331,120 | 351,889 | 387,876 |
| 5 | Quebec..... | 1,191,516 | 1,359,027 | 1,488,535 | 1,648,898 | 2,005,776 | 2,860,510 |
| 6 | Ontario..... | 1,620,851 | 1,926,922 | 2,114,321 | 2,182,947 | 2,527,292 | 2,933,662 |
| 7 | Manitoba..... | 25,228 | 62,260 | 152,506 | 255,211 | 461,394 | 610,118 |
| 8 | Saskatchewan..... | .. | .. | .. | 91,279 | 492,432 | 757,510 |
| 9 | Alberta..... | .. | .. | .. | 73,022 | 374,295 | 588,454 |
| 10 | British Columbia..... | 36,247 | 49,459 | 98,173 | 178,657 | 392,480 | 524,582 |
| 11 | Yukon Territory..... | .. | .. | .. | 27,219 | 8,512 | 4,157 |
| 12 | Northwest Territories..... | 48,000 | 56,446 | 98,967 | 20,129 | 6,507 | 8,143 |
| | Canada..... | 3,689,257 | 4,324,810 | 4,833,239 | 5,371,315 | 7,206,643 | 8,787,949 ² |
| 13 | Households (excl. Territories).. No. | .. | 800,410 | 900,080 | 1,058,386 | 1,482,980 | 1,897,110 |
| Immigration— | | | | | | | |
| 14 | From United Kingdom..... No. | .. | 17,033 | 22,042 | 11,810 ⁴ | 144,076 | 43,772 |
| 15 | From United States..... | .. | 21,822 | 52,516 | 17,987 ⁴ | 112,028 | 23,888 |
| 16 | From other countries..... | .. | 9,136 | 7,607 | 19,352 ⁴ | 75,184 | 24,068 |
| | Totals..... | 27,773 | 47,991 | 82,165 | 49,149 ⁴ | 331,288 | 91,728 |
| Vital Statistics— | | | | | | | |
| 17 | Births (live)..... No. | .. | .. | .. | .. | .. | .. |
| | Rates per 1,000 population... | .. | .. | .. | .. | .. | .. |
| 18 | Deaths, all causes..... No. | .. | .. | .. | .. | .. | .. |
| | Rates per 1,000 population... | .. | .. | .. | .. | .. | .. |
| 19 | Marriages..... No. | .. | .. | .. | .. | .. | .. |
| | Rates per 1,000 population... | .. | .. | .. | .. | .. | .. |
| 20 | Divorces..... No. | 4 | 7 | 10 | 19 | 57 | 558 |
| Health and Welfare— | | | | | | | |
| HOSPITALS—⁵ | | | | | | | |
| Public Hospitals— | | | | | | | |
| 21 | Hospitals..... No. | .. | .. | .. | .. | .. | .. |
| 22 | Bed capacity ⁶ | .. | .. | .. | .. | .. | .. |
| 23 | Patient days ⁷ | .. | .. | .. | .. | .. | .. |
| 24 | Expenditure (net) ⁸ \$ | .. | .. | .. | .. | .. | .. |
| Tuberculosis Sanatoria— | | | | | | | |
| 25 | Sanatoria..... No. | .. | .. | .. | .. | .. | .. |
| 26 | Bed capacity..... | .. | .. | .. | .. | .. | .. |
| 27 | Patient days..... | .. | .. | .. | .. | .. | .. |
| 28 | Expenditure (net) ⁸ \$ | .. | .. | .. | .. | .. | .. |
| Mental Institutions— | | | | | | | |
| 29 | Hospitals..... No. | .. | .. | .. | .. | .. | .. |
| 30 | Bed capacity..... | .. | .. | .. | .. | .. | .. |
| 31 | Patient days..... | .. | .. | .. | .. | .. | .. |
| 32 | Expenditure (net) ⁸ \$ | .. | .. | .. | .. | .. | .. |
| 33 | FAMILY ALLOWANCES ⁴ \$ | .. | .. | .. | .. | .. | .. |
| 34 | OLD AGE SECURITY..... \$ | .. | .. | .. | .. | .. | .. |
| 35 | PENSIONS FOR THE BLIND ¹⁰ \$ | .. | .. | .. | .. | .. | .. |
| 36 | UNEMPLOYMENT INSURANCE ^{4,11} \$ | .. | .. | .. | .. | .. | .. |
| Criminal Statistics—¹² | | | | | | | |
| 37 | Convictions, indictable offences. No. | .. | 3,509 ¹³ | 3,974 | 5,638 | 12,627 | 19,396 |
| | Convictions, offences punishable on summary conviction— | | | | | | |
| 38 | Relating to traffic and parking regulations..... | .. | 30,365 ¹³ | 33,643 | 36,510 | 100,633 | 51,843 |
| 39 | Other..... | .. | .. | .. | .. | .. | 105,934 |

¹ At every census the previous post-censal estimates made at June 1 each year are adjusted to the newly recorded population figures.² Includes 485 members of the Royal Canadian Navy recorded separately.³ Intercensal estimate—excludes households in institutions, hotels, camps, etc.⁴ Year ended Mar. 31.⁵ For reporting hospitals only; private and federal hospitals excluded.⁶ Bassinets for newborn excluded.

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

NOTE.—The interpretation of the symbols used in the table will be found facing p. 1 of this volume.

| 1931 | 1941 | 1951 | 1953 | 1954 | 1955 | 1956 | |
|------------------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|---------------------|-----------|
| ... | ... | 361,416 | 383,000 | 395,000 | 406,000 | 415,074 | 1 |
| 88,038 | 95,047 | 98,429 | 101,000 | 101,000 | 100,000 | 99,285 | 2 |
| 512,846 | 577,962 | 642,584 | 663,000 | 673,000 | 683,000 | 694,717 | 3 |
| 408,219 | 457,401 | 515,697 | 533,000 | 540,000 | 547,000 | 554,616 | 4 |
| 2,874,662 | 3,331,882 | 4,055,681 | 4,269,000 | 4,388,000 | 4,517,000 | 4,658,378 | 5 |
| 3,431,683 | 3,787,655 | 4,597,542 | 4,941,000 | 5,115,000 | 5,266,000 | 5,404,933 | 6 |
| 700,139 | 729,744 | 776,541 | 809,000 | 823,000 | 839,000 | 850,040 | 7 |
| 921,785 | 895,992 | 831,728 | 861,000 | 873,000 | 878,000 | 880,665 | 8 |
| 731,605 | 796,169 | 939,501 | 1,012,000 | 1,057,000 | 1,091,000 | 1,123,116 | 9 |
| 694,263 | 817,861 | 1,165,210 | 1,248,000 | 1,295,000 | 1,342,000 | 1,398,464 | 10 |
| 4,230 | 4,914 | 9,096 | 9,000 | 10,000 | 11,000 | 12,190 | 11 |
| 9,316 | 12,028 | 16,004 | 16,000 | 17,000 | 18,000 | 19,313 | 12 |
| 10,376,786 | 11,506,655 | 14,009,429● | 14,845,000 | 15,287,000 | 15,698,000 | 16,080,791 | |
| 2,275,171 | 2,706,089 | 3,420,822● | 3,675,000 ³ | 3,785,000 ³ | 3,891,000 ³ | 3,941,148 | 13 |
| 7,678 | 435 | 31,559 | 46,574 | 43,120 | 29,228 | 50,246 | 14 |
| 15,195 | 6,594 | 7,755 | 9,407 | 10,131 | 10,395 | 9,777 | 15 |
| 4,657 | 2,300 | 155,077 | 112,887 | 100,976 | 70,323 | 104,834 | 16 |
| 27,530 | 9,329 | 194,391 | 168,868 | 154,227 | 109,946 | 164,857 | |
| 247,205 | 263,993 | 381,092● | 417,884 | 436,198 | 442,937 | 450,739 | 17 |
| 23,2 | 22,4 | 27,2● | 28,1 | 28,5 | 28,2 | 28,0 | |
| 108,446 | 118,797 | 125,823● | 127,791 | 124,855 | 128,476 | 131,961 | 18 |
| 10,2 | 10,1 | 9,0● | 8,6 | 8,2 | 8,2 | 8,2 | |
| 68,239 | 124,644 | 128,408● | 131,034 | 128,629 | 128,029 | 132,713 | 19 |
| 6,4 | 10,6 | 9,2● | 8,8 | 8,4 | 8,2 | 8,3 | |
| 700 | 2,461 | 5,263● | 6,110 | 5,922 | 6,031 | 5,890 ²⁰ | 20 |
| 587 | 610 | 778 | 810● | 817 | 858 | 872 | 21 |
| 43,247 | 53,305 | 68,674 | 70,223● | 75,478 | 82,330 | 86,018 | 22 |
| 9,657,517 | 12,926,043 | 19,798,448 | 20,813,371● | 21,978,256 | 23,655,377 | 24,855,330 | 23 |
| 38,309,400 | .. | 196,203,373 | 235,512,500● | 273,604,227 | 309,722,352 | 360,198,926 | 24 |
| 31 | 39 | 59● | 60 | 56 | 56 | 56 | 25 |
| 6,044 | 8,655 | 13,502● | 15,150 | 13,942 | 13,756 | 13,596 | 26 |
| 1,924,289 | 3,227,640 | 4,640,217● | 5,160,391 | 4,674,914 | 4,398,412 | 4,240,580 | 27 |
| 5,329,393 | 7,753,229 | 26,815,147● | 30,882,973 | 31,165,027 | 31,132,850 | 32,003,164 | 28 |
| 52 | 54 | 63● | 69 | 73 | 73 | 73 | 29 |
| 29,283 | 38,800 | 44,205● | 49,290 | 51,986 | 53,943 | 54,951 | 30 |
| 10,662,343 | 16,078,250 | 19,708,905● | 21,534,703 | 22,243,176 | 22,948,007 | 22,993,091 | 31 |
| 13,235,767 | 14,725,760 | 46,403,522● | 57,223,007 | 64,086,874 | 68,047,648 | 76,942,032 | 32 |
| 7,050,924 ⁹ | 28,472,475 ⁹ | 309,465,461● | 334,197,685 | 350,113,902 | 366,465,965 | 382,535,026 | 33 |
| .. | 1,067,239 | 99,268,006 ⁹ | 323,141,614 | 338,970,791 | 353,205,333 | 366,218,474 | 34 |
| .. | .. | 3,901,109● | 2,985,217 | 2,914,101 | 2,886,185 | 2,918,495 | 35 |
| .. | .. | 88,273,000● | 135,822,000 | 186,852,000 | 257,629,000 | 215,206,000 | 36 |
| 31,542 | 42,646 | 40,289● | 45,071 | 47,981 | 46,239 | 45,913 | 37 |
| 212,361 | 369,232 | 1,065,426● | 1,505,931 | 1,685,811 | 1,837,814 | 2,127,737 | 38 |
| 115,417 | 178,824 | 243,040● | 257,691 | 291,756 | 309,962 | 273,993 | 39 |

⁷ Days' stay of newborn excluded.⁸ Not all hospitals shown above furnished financial reports.⁹ Provinces contributed prior to 1952 but their contributions are not included.¹¹ Includes seasonal benefit payments from 1950.¹² Years ended Sept. 30 prior to 1950; 1950 and subsequently, years ended Dec. 31.¹³ 1886 figures; first year available.

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

| | Item | 1871 | 1881 | 1891 | 1901 | 1911 | 1921 |
|---|---|-------------|-------------|-------------|-------------|-------------|-------------|
| Education— | | | | | | | |
| 1 | Total enrolment, all types..... No. | 803,000 | 891,000 | 993,000 | 1,092,633 | 1,861,205 | 1,880,805 |
| 2 | Teachers ² " " | 13,559 | 18,016 | 23,718 | 27,126 | 40,516 | 56,607 |
| 3 | Public expenditure on..... \$ | .. | .. | .. | 11,044,925 | 37,971,374 | 112,976,543 |
| Survey of Production— | | | | | | | |
| 4 | Net value..... \$'000 | .. | .. | .. | .. | .. | .. |
| Agriculture— | | | | | | | |
| 5 | Area of occupied farms..... acre | 36,046,401 | 45,358,141 | 58,997,995 | 63,422,338 | 108,968,715 | 140,887,903 |
| 6 | Improved lands..... " " | 17,335,818 | 21,899,181 | 27,729,852 | 30,166,033 | 48,733,823 | 70,769,548 |
| 7 | Cash income from the sale of farm products..... \$'000 | .. | .. | .. | .. | .. | .. |
| FIELD CROPS—⁴ | | | | | | | |
| 8 | Wheat..... bu. | 16,723,873 | 32,350,269 | 42,144,779 | 55,572,368 | 132,077,547 | 226,508,411 |
| | " " \$ | 16,993,265 | 38,820,323 | 31,667,529 | 36,122,039 | 104,816,825 | 374,178,601 |
| 9 | Oats..... bu. | 42,489,453 | 70,493,131 | 83,428,202 | 151,497,407 | 245,393,425 | 364,989,218 |
| | " " \$ | 15,966,310 | 23,967,665 | 31,702,717 | 51,509,118 | 86,796,130 | 180,989,587 |
| 10 | Barley..... bu. | 11,496,038 | 16,844,868 | 17,222,795 | 22,224,366 | 28,848,310 | 42,956,049 |
| | " " \$ | 8,170,735 | 11,791,408 | 8,611,397 | 8,889,746 | 14,653,697 | 33,514,070 |
| 11 | Corn..... bu. | 3,802,830 | 9,025,142 | 10,711,330 | 25,875,919 | 14,417,599 | 10,822,278 |
| | " " \$ | 2,283,145 | 5,415,085 | 5,034,348 | 11,902,923 | 5,774,039 | 7,081,140 |
| 12 | Potatoes..... bu. | 47,330,187 | 55,368,790 | 53,490,857 | 55,362,635 | 55,461,473 | 62,230,052 |
| | " " \$ | 15,211,774 | 13,288,510 | 21,396,342 | 13,840,658 | 27,426,765 | 44,635,547 |
| 13 | Hay and clover..... ton | 3,818,641 | 5,055,810 | 7,693,733 | 6,943,715 | 10,406,367 | 8,329,915 |
| | " " \$ | 38,869,900 | 40,446,480 | 69,243,597 | 85,625,315 | 90,115,531 | 174,110,386 |
| | Total Areas, Field Crops ⁵ acre | | | 15,662,811 | 19,763,740 | 30,556,168 | 47,553,418 |
| | Total Values, Field Crops ⁶ ... \$ | 111,116,606 | 155,277,427 | 194,766,934 | 237,682,285 | 384,513,795 | 933,045,936 |
| LIVESTOCK AND POULTRY—⁷ | | | | | | | |
| 14 | Horses..... No. | 836,700 | 1,059,400 | 1,470,600 | 1,577,500 | 2,599,000 | 3,451,800 |
| | " " \$ | .. | .. | .. | 118,279,000 | 381,916,000 | 414,808,000 |
| 15 | Milk cows..... No. | 1,251,200 | 1,595,800 | 1,857,100 | 2,408,700 | 2,645,200 | 3,086,700 |
| | " " \$ | .. | .. | .. | 69,238,000 | 111,833,000 | 188,518,000 |
| 16 | Other cattle..... No. | 1,373,100 | 1,919,200 | 2,263,500 | 3,167,800 | 3,880,900 | 5,282,800 |
| | " " \$ | .. | .. | .. | 54,197,000 | 84,021,000 | 146,567,000 |
| 17 | Sheep..... No. | 3,155,500 | 3,048,700 | 2,563,800 | 2,510,200 | 2,174,300 | 3,200,500 |
| | " " \$ | .. | .. | .. | 10,491,000 | 10,702,000 | 20,675,000 |
| 18 | Swine..... No. | 1,366,100 | 1,207,600 | 1,733,900 | 2,353,800 | 3,634,800 | 3,324,300 |
| | " " \$ | .. | .. | .. | 16,446,000 | 26,987,000 | 35,899,000 |
| 19 | All poultry..... No. | .. | .. | 14,105,100 | 17,922,700 | 31,793,300 | 37,185,800 |
| | " " \$ | .. | .. | .. | 5,724,000 | 14,654,000 | 38,015,000 |
| | Total Values..... \$ | .. | .. | .. | 274,875,000 | 630,113,000 | 844,452,000 |
| DAIRYING—⁸ | | | | | | | |
| 20 | Total milk production..... '000 lb. | .. | .. | .. | 6,866,834 | 9,806,741 | 11,897,545 |
| 21 | Cheese, factory ⁹ lb. | .. | 54,574,856 | 97,418,855 | 220,833,269 | 199,904,205 | 162,117,000 |
| | " " \$ | .. | 5,457,486 | 9,741,886 | 22,221,430 | 21,587,124 | 28,710,000 |
| 22 | Butter, creamery..... lb. | .. | 1,365,912 | 3,654,644 | 36,066,739 | 64,489,398 | 128,745,000 |
| | " " \$ | .. | 341,478 | 913,591 | 7,240,972 | 15,597,807 | 48,135,000 |
| 23 | Butter, dairy..... lb. | .. | 102,545,169 | 111,577,210 | 105,343,076 | 137,110,200 | 107,379,000 |
| | " " \$ | .. | .. | .. | 21,384,644 | 30,269,497 | 35,307,000 |
| 24 | Other dairy products ¹⁰ \$ | .. | .. | .. | 15,623,907 | 35,927,426 | 110,623,000 |
| | Total Values, Dairy Products \$ | .. | 22,743,939 | 30,315,214 | 66,470,953 | 103,381,854 | 222,775,000 |
| Forestry— | | | | | | | |
| 25 | Primary forest production..... \$ | .. | .. | .. | .. | .. | 168,054,024 |
| 26 | Lumber production..... M ft. b.m. | .. | .. | .. | .. | 4,918,202 | 2,869,307 |
| | " " \$ | .. | .. | .. | .. | 75,830,954 | 82,448,585 |
| 27 | Total sawmill products..... \$ | .. | .. | .. | .. | .. | 116,891,191 |
| 28 | Pulp and paper products..... \$ | .. | .. | .. | .. | .. | 151,003,165 |
| 29 | Exports of wood, wood products and paper ¹² \$ | .. | .. | 25,351,085 | 33,099,915 | 56,334,695 | 284,561,478 |

¹ Estimated. ² Up to 1941 includes teachers in provincially controlled ordinary and technical day schools only; subsequently all teachers. ³ Includes the Yukon and Northwest Territories. ⁴ Figures for the decennial census years 1871-1921 are for the immediately preceding years; those for 1871 are for the four original provinces only. ⁵ Currently being revised. ⁶ Includes other field crops, e.g., rye and flaxseed, not specified. ⁷ On farms only. ⁸ Figures for the decennial census years 1881-1921 are for the immediately

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

| 1931 | 1941 | 1951 | 1953 | 1954 | 1955 | 1956 | |
|-------------|-------------|----------------------------|---------------|---------------|--------------------------|-----------------------------|----|
| 2,264,106 | 2,131,391 | 2,922,931 ● | 3,206,181 | 3,387,557 | 3,644,900 ¹ | 3,843,300 ¹ | 1 |
| 71,246 | 75,308 | 105,796 ● | 114,618 | 118,369 | 126,370 ¹ | 135,350 ¹ | 2 |
| 144,748,823 | 129,817,268 | 513,442,000 ● | 627,012,000 | 705,412,000 | 751,000,000 ¹ | 835,000,000 ¹ | 3 |
| .. | 4,592,464 | 13,249,469 ● | 14,588,095 | 14,177,499 | 15,838,050 | .. | 4 |
| 163,114,034 | 173,563,282 | 174,046,654 ² ● | .. | .. | .. | 173,923,691 ³ | 5 |
| 85,732,172 | 91,636,065 | 96,852,826 ² ● | .. | .. | .. | 100,326,243 ³ | 6 |
| 476,101 | 885,257 | 2,816,461 | 2,775,795 | 2,394,837 | 2,390,471 | 2,667,150 ⁴ | 7 |
| 312,325,000 | 314,710,000 | 553,646,000 | 5 | 5 | 5 | 573,062,000 | 8 |
| 123,550,000 | 192,642,000 | 856,724,000 | 5 | 5 | 5 | 614,818,000 | |
| 328,278,000 | 306,052,000 | 488,125,000 | 5 | 5 | 5 | 524,445,000 | 9 |
| 77,970,000 | 125,657,000 | 369,237,000 | 5 | 5 | 5 | 300,189,000 | |
| 67,382,600 | 110,401,000 | 245,212,000 | 5 | 5 | 5 | 269,065,000 | 10 |
| 17,465,000 | 47,296,000 | 269,943,000 | 5 | 5 | 5 | 195,551,000 | |
| 5,449,000 | 13,672,000 | 15,900,000 | 5 | 5 | 5 | 27,814,000 | 11 |
| 2,274,000 | 9,868,000 | 28,500,000 | 5 | 5 | 5 | 33,377,000 | |
| 87,175,000 | 61,731,000 | 48,361,000 | 5 | 5 | 5 | 68,932,000 | 12 |
| 22,359,000 | 46,234,000 | 98,088,000 | 5 | 5 | 5 | 77,914,000 | |
| 14,539,600 | 14,448,000 | 19,488,000 | 5 | 5 | 5 | 19,655,000 | 13 |
| 110,110,000 | 178,638,000 | 297,290,000 | 5 | 5 | 5 | 302,698,000 | |
| 58,862,305 | 55,102,799 | 60,864,320 | 5 | 5 | 5 | 61,370,000 | |
| 435,966,400 | 678,899,000 | 2,121,657,000 | 5 | 5 | 5 | 1,757,332,000 | |
| 3,113,900 | 2,788,800 | 1,303,800 | 5 | 5 | 5 | 782,100 | 14 |
| 205,087,000 | 184,549,700 | 94,130,000 | 5 | 5 | 5 | 74,384,000 | |
| 3,371,900 | 3,626,000 | 2,903,800 | 5 | 5 | 5 | 3,160,000 | 15 |
| 160,655,000 | 191,214,000 | 722,589,000 | 5 | 5 | 5 | 447,057,000 | |
| 4,601,100 | 4,891,000 | 5,459,300 | 5 | 5 | 5 | 4,942,300 | 16 |
| 94,952,000 | 138,196,200 | 871,003,000 | 5 | 5 | 5 | 539,694,000 | |
| 3,627,100 | 2,840,000 | 1,461,200 | 5 | 5 | 5 | 1,619,700 | 17 |
| 19,680,000 | 17,083,600 | 38,439,000 | 5 | 5 | 5 | 25,983,000 | |
| 4,699,800 | 6,081,400 | 4,914,300 | 5 | 5 | 5 | 4,730,900 | 18 |
| 33,288,000 | 54,911,800 | 185,773,000 | 5 | 5 | 5 | 115,064,000 | |
| 65,468,000 | 63,526,200 | 67,857,000 | 5 | 5 | 5 | 73,052,000 | 19 |
| 45,138,000 | 27,444,100 | 86,943,000 | 5 | 5 | 5 | 79,729,000 | |
| 558,800,000 | 613,354,300 | 1,998,877,000 | 5 | 5 | 5 | 1,281,911,000 | |
| 14,339,686 | 16,068,037 | 15,309,971 | 16,448,679 | 16,902,148 | 17,298,471 | 17,303,082 | 20 |
| 113,956,639 | 152,790,000 | 94,314,000 | 83,219,000 | 92,587,000 | 87,554,000 | 93,082,000 | 21 |
| 12,824,695 | 26,107,000 | 33,527,000 | 26,968,000 | 30,824,000 | 29,212,000 | 33,574,000 | |
| 225,955,246 | 285,845,000 | 287,165,000 | 302,783,000 | 313,230,000 | 318,577,000 | 303,248,000 | 22 |
| 50,198,878 | 93,198,000 | 162,154,000 | 179,088,000 | 182,943,000 | 184,808,000 | 175,681,000 | |
| 98,590,000 | 75,483,000 | 26,830,000 | 21,169,000 | 19,487,000 | 18,553,000 | 18,589,000 | 23 |
| 20,098,000 | 22,221,000 | 16,159,000 | 12,321,000 | 11,182,000 | 10,617,000 | 10,590,000 | |
| 109,262,600 | 158,267,000 | 403,052,000 | 438,871,000 | 449,268,000 | 468,866,000 | 491,550,000 | 24 |
| 192,384,173 | 299,793,000 | 614,892,000 | 657,248,000 | 674,217,000 | 693,503,000 | 711,395,000 ⁵ | |
| 141,123,930 | 225,615,876 | 821,021,875 ● | 704,538,888 | 728,369,907 | 829,572,714 | 7,739,603 | 25 |
| 2,497,553 | 4,941,084 | 6,948,697 ● | 7,305,958 | 7,243,855 | 7,920,033 | 539,261,627 | 26 |
| 45,977,843 | 129,287,703 | 507,650,241 ● | 494,385,993 | 482,912,005 | 541,563,241 | 639,414,360 | 27 |
| 62,769,253 | 163,412,292 | 591,551,749 ● | 580,693,704 | 572,186,498 | 644,482,990 | 1,433,441,726 ¹¹ | 28 |
| 174,733,954 | 334,726,175 | 1,237,897,470 ● | 1,179,665,443 | 1,241,665,451 | 1,326,938,138 | 1,514,832,426 | 29 |
| 185,493,491 | 387,113,232 | 1,399,076,131 ● | 1,295,395,860 | 1,378,354,376 | 1,520,921,089 | | |

preceding years. In the Censuses of 1881 and 1891 values only were given of factory butter and cheese; quantities are estimated.

⁹ Data shown for 1941 and subsequent years represent cheddar and other cheese made from whole milk; prior to 1941 the figures included other cheese for Quebec only.

¹⁰ Prior to 1921 this item does not include skim milk and buttermilk.

¹¹ Value of factory shipments.

¹² Years ended Mar. 31 prior

to 1931.

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

| | Item | 1871 | 1881 | 1891 | 1901 | 1911 | 1921 |
|--|--|------------------------|-------------------------|----------------------|----------------------|---------------|---------------|
| Mineral Production— | | | | | | | |
| 1 | Gold.....oz. t. | 105,187 | 63,524 | 45,018 | 1,167,216 | 473,159 | 926,329 |
| | \$ | 2,174,412 | 1,313,153 | 930,614 | 24,128,503 | 9,781,077 | 19,148,920 |
| 2 | Silver.....oz. t. | .. | 355,083 ¹ | 414,523 | 5,539,192 | 32,559,044 | 13,543,198 |
| | \$ | .. | 347,271 ¹ | 409,549 | 3,265,354 | 17,355,272 | 8,485,355 |
| 3 | Copper.....lb. | .. | 3,260,424 ¹ | 9,529,401 | 37,827,019 | 55,648,011 | 47,620,820 |
| | \$ | .. | 366,798 ¹ | 1,226,703 | 6,096,581 | 6,886,998 | 5,953,555 |
| 4 | Lead.....lb. | .. | 204,800 ¹ | 88,665 | 51,900,958 | 23,784,969 | 66,679,592 |
| | \$ | .. | 9,216 ¹ | 3,857 | 2,249,387 | 827,717 | 3,828,742 |
| 5 | Zinc.....lb. | .. | .. | .. | 788,000 ² | 1,877,479 | 53,089,356 |
| | \$ | .. | .. | .. | 36,011 ² | 108,105 | 2,471,310 |
| 6 | Nickel.....lb. | .. | 830,477 ³ | 4,035,347 | 9,189,047 | 34,098,744 | 19,293,060 |
| | \$ | .. | 498,286 ³ | 2,421,208 | 4,594,523 | 10,229,623 | 6,752,571 |
| 7 | Coal.....short ton | 1,063,742 ⁴ | 1,537,106 | 3,577,749 | 6,486,325 | 11,323,388 | 15,057,493 |
| | \$ | 1,763,423 ⁴ | 2,688,621 | 7,019,425 | 12,699,243 | 26,467,646 | 72,451,656 |
| 8 | Natural gas..... M cu. ft. | .. | .. | 150,000 ⁵ | 339,476 | 1,917,678 | 4,594,164 |
| | \$ | .. | .. | 755,298 | 622,392 | 291,092 | 187,541 |
| 9 | Petroleum, crude..... bbl. | .. | 368,987 | 1,010,211 | 1,005,275 | 357,073 | 641,533 |
| | \$ | .. | .. | 9,279 | 40,217 | 127,414 | 92,761 |
| 10 | Asbestos.....short ton | .. | .. | 999,878 | 1,259,759 | 2,943,108 | 4,906,230 |
| 11 | Cement.....bbl. | .. | 69,843 ⁶ | 93,479 | 450,394 | 5,692,915 | 5,752,885 |
| | \$ | .. | 81,909 ⁶ | 108,561 | 660,030 | 7,644,537 | 14,195,143 |
| | Totals, Mineral Production ⁷ .. \$ | .. | 10,221,255 ⁷ | 18,976,616 | 65,797,911 | 103,220,994 | 171,923,342 |
| Water Power— | | | | | | | |
| 12 | Turbine installation..... h.p. | .. | .. | 71,219 | 238,902 | 1,363,134 | 2,754,157 |
| Central Electric Stations— | | | | | | | |
| 13 | Power stations..... No. | .. | .. | 80 | 58 | 266 | 510 |
| 14 | Capital invested..... \$ | .. | .. | 4,113,771 | 11,891,025 | 110,838,746 | 484,669,451 |
| 15 | Power generated..... '000 kwh. | .. | .. | .. | .. | .. | 5,614,132 |
| 16 | Customers..... No. | .. | .. | .. | .. | .. | 973,212 |
| Fisheries— | | | | | | | |
| 17 | Marketed value of all products. \$ | 7,573,199 | 15,817,162 | 18,977,874 | 25,737,153 | 34,667,872 | 34,931,935 |
| Furs— | | | | | | | |
| 18 | Pelts taken ⁸ No. | .. | .. | .. | .. | .. | 2,936,407 |
| | \$ | .. | .. | .. | .. | .. | 10,151,594 |
| 19 | Value of animals on fur farms.. \$ | .. | .. | .. | .. | .. | 5,977,545 |
| Manufactures— | | | | | | | |
| 20 | Employees..... No. | 187,942 | 254,935 | 369,595 | 339,173 | 515,203 | 438,555 |
| 21 | Capital..... \$ | 77,964,020 | 165,302,623 | 353,213,000 | 446,916,487 | 1,247,583,609 | 2,697,858,073 |
| 22 | Salaries and wages..... \$ | 40,851,009 | 59,429,002 | 100,415,350 | 113,249,350 | 241,008,416 | 497,399,761 |
| 23 | Values of materials used in.... \$ | 124,907,846 | 179,918,593 | 250,759,292 | 266,527,858 | 601,509,018 | 1,365,292,885 |
| Products— | | | | | | | |
| 24 | Gross ¹⁰ \$ | 221,617,773 | 309,676,068 | 469,847,886 | 481,053,375 | 1,165,975,639 | 2,488,987,148 |
| 25 | Net..... \$ | 96,709,927 | 129,757,475 | 219,088,594 | 214,525,517 | 564,466,621 | 1,123,694,263 |
| 26 | Index of Industrial Production.... (1935-39=100) | .. | .. | .. | .. | .. | .. |
| Construction— | | | | | | | |
| 27 | Values of contracts awarded... \$ | .. | .. | .. | .. | 345,425,000 | 240,133,300 |
| Labour— | | | | | | | |
| Gainfully Occupied—^{12,13} | | | | | | | |
| 28 | Agricultural occupations..... No. | .. | .. | 735,207 | 716,860 | 933,735 | 1,035,283 |
| 29 | Other primary "..... " | .. | .. | 58,211 | 71,584 | 139,877 | 115,737 |
| 30 | Manufacturing "..... " | .. | .. | 237,972 | 299,535 | 372,234 | 406,677 |
| 31 | Construction "..... " | .. | .. | 86,694 | 89,165 | 150,567 | 162,275 |
| 32 | Transportation and communication "..... " | .. | .. | 61,310 | 82,483 | 158,926 | 199,568 |
| 33 | Trade and finance "..... " | .. | .. | 88,064 | 99,552 | 221,805 | 293,334 |
| 34 | Service "..... " | .. | .. | 203,897 | 236,205 | 322,895 | 420,173 |
| 35 | Clerical "..... " | .. | .. | 24,121 | 58,789 | 106,351 | 217,937 |
| 36 | Labourers ¹⁵ "..... " | .. | .. | 116,598 | 127,867 | 317,244 | 306,215 |
| 37 | Not stated "..... " | .. | .. | 3,534 | 792 | .. | 7,149 |
| | Totals, Gainfully Occupied ¹³ .. " | .. | .. | 1,615,608 | 1,782,832 | 2,723,634 | 3,164,348 |
| 38 | Wage-earners ¹³ No. | .. | .. | .. | .. | 1,628,273 | 1,972,089 |

¹ 1887.² 1898.³ 1899.⁴ 1874.⁵ 1892.⁶ Tons.⁷ Includes other items

not specified.

⁸ Not comparable with previous years; only ultimate customers now included.⁹ Years

ended June 30.

¹⁰ In 1952 gross value of products was replaced by value of factory shipments.¹¹ Does

not include Newfoundland but reflects changes in Newfoundland production since 1951.

¹² 10 years of age or

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

| 1931 | 1941 | 1951 | 1953 | 1954 | 1955 | 1956 | |
|---------------|-------------------------|---------------------|----------------|----------------|-------------------------|------------------------------|----|
| 2,693,892 | 5,345,179 | 4,392,751 ● | 4,055,723 | 4,366,440 | 4,541,962 | 4,383,863 | 1 |
| 58,093,396 | 205,789,392 | 161,872,873 ● | 139,597,985 | 148,764,611 | 156,788,528 | 151,024,080 | |
| 20,562,247 | 21,754,408 | 23,125,825 ● | 28,299,335 | 31,117,949 | 27,984,204 | 28,431,847 | 2 |
| 6,141,943 | 8,323,454 | 21,865,467 ● | 23,774,271 | 25,907,870 | 24,676,472 | 25,497,681 | |
| 292,304,390 | 643,316,713 | 539,941,589 ● | 506,504,074 | 605,464,042 | 651,987,423 | 709,720,590 | 3 |
| 24,114,065 | 64,407,497 | 149,026,216 ● | 150,953,742 | 175,712,693 | 239,756,455 | 292,958,091 | |
| 267,342,482 | 400,167,005 | 316,462,751 ● | 387,411,588 | 436,990,488 | 405,525,038 | 377,708,904 | 4 |
| 7,260,183 | 15,470,815 | 58,229,146 ● | 50,076,822 | 58,250,831 | 58,314,500 | 58,582,651 | |
| 237,245,451 | 512,381,636 | 682,224,335 ● | 803,523,295 | 752,982,353 | 866,714,038 | 845,265,125 | 5 |
| 6,050,249 | 17,477,337 | 135,762,643 ● | 96,101,386 | 90,207,285 | 118,306,466 | 125,437,344 | |
| 65,666,320 | 282,258,225 | 275,806,272 ● | 287,385,777 | 322,557,961 | 349,856,997 | 357,030,311 | 6 |
| 15,267,453 | 68,656,795 | 151,269,994 ● | 160,430,098 | 180,173,392 | 215,866,007 | 222,204,860 | |
| 12,243,211 | 18,225,921 | 18,586,823 ● | 15,900,673 | 14,913,579 | 14,818,880 | 14,915,610 | 7 |
| 41,207,682 | 58,059,630 | 109,038,835 ● | 102,721,875 | 96,600,266 | 93,579,471 | 95,349,763 | |
| 25,874,723 | 43,495,353 | 79,400,667 ● | 100,985,923 | 120,735,214 | 150,772,312 | 169,152,556 | 8 |
| 9,026,573 | 12,665,116 | 7,158,920 ● | 10,877,017 | 12,482,109 | 15,098,508 | 16,849,556 | |
| 1,542,573 | 10,133,838 | 47,615,534 ● | 80,898,897 | 96,080,345 | 129,440,247 | 171,981,413 | 9 |
| 4,211,674 | 14,415,096 | 116,655,238 ● | 200,582,276 | 243,877,030 | 305,640,036 | 406,561,872 | |
| 164,296 | 477,846 | 973,198 ● | 911,226 | 924,116 | 1,063,802 | 1,014,249 | 10 |
| 4,812,886 | 21,468,840 | 81,584,345 ● | 86,052,895 | 86,409,212 | 96,191,317 | 99,859,969 | |
| 10,161,658 | 8,368,711 | 17,007,812 ● | 22,238,335 | 22,437,477 | 25,168,464 | 5,021,683 ¹⁵ | 11 |
| 15,826,243 | 13,063,588 | 40,446,288 ● | 58,842,022 | 59,035,444 | 65,650,025 | 75,223,321 | |
| 230,434,726 | 560,241,290 | 1,245,483,595 ● | 1,336,303,503 | 1,488,382,091 | 1,795,310,796 | 2,084,905,554 | |
| 6,666,337 | 8,845,038 | 13,342,504 ● | 14,929,074 | 16,684,131 | 17,511,148 | 18,356,148 | 12 |
| 559 | 607 | 647 ● | 524 | 557 | .. | .. | 13 |
| 1,229,988,951 | 1,641,460,451 | 54,851,844 ● | 62,860,927 | 65,936,440 | 72,910,592 | 78,004,353 | 14 |
| 16,330,837 | 33,317,663 | 3,439,750 ● | 3,817,455 | 4,001,626 | 4,224,901 ¹⁵ | 4,424,644 ¹⁵ | 15 |
| 1,632,792 | 2,081,270 | | | | | | 16 |
| 30,517,306 | 62,258,997 | 204,912,000 ● | 173,332,000 | 190,508,000 | 181,026,000 | 197,650,000 ¹⁵ | 17 |
| 4,060,356 | 7,257,337 | 7,479,272 | 7,568,865 ● | 6,274,727 | 9,670,796 | 7,727,264 | 18 |
| 11,803,217 | 21,123,161 | 31,134,400 | 23,349,680 ● | 19,287,522 | 30,509,515 | 28,051,746 | |
| 8,497,237 | 7,928,971 | 10,195,561 | 10,835,709 | 12,941,155 | 15,008,081 ● | 12,765,000 | 19 |
| 528,640 | 961,178 | 1,258,375 ● | 1,327,451 | 1,267,966 | 1,298,461 | 1,364,163 | 20 |
| 3,705,701,893 | 4,905,503,966 | | | | | | 21 |
| 587,566,990 | 1,264,862,643 | 3,276,280,917 ● | 3,957,018,348 | 3,896,687,691 | 4,142,409,534 | 4,600,943,000 ¹⁵ | 22 |
| 1,221,911,982 | 3,296,547,019 | 9,074,526,353 ● | 9,380,558,682 | 9,241,857,554 | 10,338,202,165 | 11,698,222,000 ¹⁵ | 23 |
| 2,555,126,448 | 6,076,308,124 | 16,392,187,132 ● | 17,785,416,854 | 17,554,527,504 | 19,513,933,811 | 21,849,415,000 ¹⁵ | 24 |
| 1,252,017,248 | 2,605,119,788 | 6,940,946,783 ● | 7,993,069,351 | 7,902,124,137 | 8,753,450,496 | 9,630,722,000 ¹⁵ | 25 |
| .. | 164.8 | 226.5 ¹¹ | 248.4 | 244.6 | 265.8 | 284.4 | 26 |
| 315,482,000 | 393,991,300 | 2,295,499,200 ● | 2,017,060,700 | 2,154,959,200 | 3,183,592,000 | 3,426,905,500 | 27 |
| 1,127,682 | 1,083,816 | 826,759 | .. | .. | .. | .. | 28 |
| 150,276 | 203,586 | 196,996 | .. | .. | .. | .. | 29 |
| 495,842 | 709,181 | 973,982 | .. | .. | .. | .. | 30 |
| 203,056 | 213,493 | 319,065 | .. | .. | .. | .. | 31 |
| 289,030 | 311,645 | 492,986 | .. | .. | .. | .. | 32 |
| 352,414 | 370,617 | 520,761 | .. | .. | .. | .. | 33 |
| 616,953 | 725,456 ¹⁴ | 919,922 | .. | .. | .. | .. | 34 |
| 258,684 | 314,051 | 541,713 | .. | .. | .. | .. | 35 |
| 426,242 | 252,693 | 323,829 | .. | .. | .. | .. | 36 |
| 1,654 | 11,413 | 63,000 | .. | .. | .. | .. | 37 |
| 3,921,833 | 4,195,951 ¹⁴ | 5,179,613 | .. | .. | .. | .. | |
| 2,570,097 | 2,816,798 ¹⁴ | 4,006,466 | .. | .. | .. | .. | 38 |

over prior to 1911; 14 years of age or over after 1921.
314,584 persons on Active Service on June 2, 1941.
and mining.

¹³ Exclusive of the Territories.

¹⁴ Exclusive of

¹⁵ Exclusive of labourers in agriculture, fishing, logging

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

| | Item | 1871 | 1881 | 1891 | 1901 | 1911 | 1921 |
|---|--|--------------------------|-------------|-------------|-------------|----------------------|---------------|
| Transportation— | | | | | | | |
| STEAM RAILWAYS— | | | | | | | |
| 1 | Miles in operation..... No. | 2,695 | 7,194 | 13,838 | 18,140 | 25,400 | 39,191 |
| 2 | Capital liability..... \$ | 257,035,188 ¹ | 284,419,293 | 632,061,440 | 816,110,837 | 1,528,689,201 | 2,164,687,636 |
| 3 | Passengers..... No. | 5,190,416 ² | 6,943,671 | 13,222,568 | 18,385,722 | 37,097,718 | 46,793,251 |
| 4 | Freight..... ton | 5,670,836 ² | 12,065,323 | 21,753,021 | 36,999,371 | 79,884,282 | 83,730,829 |
| 5 | Earnings..... \$ | 19,470,540 ² | 27,987,509 | 48,192,099 | 72,898,749 | 188,733,494 | 458,008,891 |
| 6 | Expenses..... \$ | 15,775,532 ² | 20,121,418 | 34,960,449 | 50,368,726 | 131,033,785 | 422,581,205 |
| URBAN TRANSIT SYSTEMS— | | | | | | | |
| 7 | Passengers carried..... No. | .. | .. | .. | .. | .. | .. |
| 8 | Vehicle-miles run..... " | .. | .. | .. | .. | .. | .. |
| 9 | Gross passenger revenue..... \$ | .. | .. | .. | .. | .. | .. |
| ROAD TRANSPORTATION— | | | | | | | |
| 10 | Highways, total milages ³ No. | .. | .. | .. | .. | .. | .. |
| 11 | Capital expenditure on ³ \$ | .. | .. | .. | .. | 21,783 | 464,805 |
| 12 | Motor vehicles registered..... No. | .. | .. | .. | .. | .. | .. |
| 13 | Total provincial revenue from licences and operation..... \$ | .. | .. | .. | .. | .. | .. |
| SHIPPING— | | | | | | | |
| 14 | Vessels on the registry..... No. | .. | 7,394 | 7,015 | 6,697 | 8,088 | 7,482 |
| | ton | .. | 1,310,896 | 1,005,475 | 666,276 | 770,446 | 1,223,973 |
| International Sea-borne—^{4,5} | | | | | | | |
| 15 | Entered..... ton | 6,576,771 | 6,967,449 | 9,372,369 | 13,235,307 | 25,205,441 | 27,344,957 |
| 16 | Cleared..... " | 6,549,257 | 6,834,983 | 9,430,279 | 12,794,501 | 22,224,104 | 27,303,673 |
| 17 | Totals..... " | 13,126,028 | 13,802,432 | 18,802,648 | 26,029,808 | 47,429,545 | 54,648,630 |
| Coastwise—⁴ | | | | | | | |
| 18 | Entered..... ton | .. | 7,664,863 | 12,835,774 | 17,927,959 | 34,280,609 | 28,567,545 |
| 19 | Cleared..... " | .. | 7,451,903 | 12,150,356 | 16,516,837 | 32,347,265 | 27,773,668 |
| 20 | Totals..... " | .. | 15,116,766 | 24,986,130 | 34,444,796 | 66,627,934 | 56,341,213 |
| CANALS— | | | | | | | |
| 21 | Passengers carried..... No. | 100,377 | 118,136 | 146,336 | 190,428 | 304,904 | 230,129 |
| 22 | Freight..... ton | 3,955,621 | 2,853,230 | 2,902,526 | 5,665,259 | 38,030,353 | 9,407,021 |
| AIR TRANSPORTATION—⁶ | | | | | | | |
| 23 | Miles flown..... No. | .. | .. | .. | .. | .. | 294,449 |
| 24 | Passenger miles..... " | .. | .. | .. | .. | .. | .. |
| 25 | Freight carried..... lb. | .. | .. | .. | .. | .. | 79,850 |
| 26 | Mail carried..... " | .. | .. | .. | .. | .. | .. |
| Communications— | | | | | | | |
| 27 | Telegraphs, miles of line..... No. | .. | 1,947 | 30,565 | 35,938 | 42,351 | 52,784 |
| 28 | Telephones..... " | .. | .. | .. | 63,192 | 302,759 ⁷ | 902,090 |
| 29 | Telephones, employees ⁸ " | .. | .. | .. | .. | 10,425 ⁷ | 19,943 |
| Post Office— | | | | | | | |
| 30 | Revenue..... \$ | 803,637 | 1,344,970 | 2,515,824 | 3,421,192 | 9,146,952 | 26,331,119 |
| 31 | Expenditure..... \$ | 994,876 | 1,876,658 | 3,161,676 | 3,837,376 | 7,954,223 | 24,661,262 |
| 32 | Money orders issued..... \$ | 4,546,434 | 7,725,212 | 12,478,178 | 17,956,258 | 70,614,862 | 173,523,322 |
| Wholesale and Retail Trade— | | | | | | | |
| Wholesale— | | | | | | | |
| 33 | Establishments..... No. | .. | .. | .. | .. | .. | .. |
| 34 | Employees..... " | .. | .. | .. | .. | .. | .. |
| 35 | Net sales..... \$ | .. | .. | .. | .. | .. | .. |
| 36 | Retail—Stores..... No. | .. | .. | .. | .. | .. | .. |
| 37 | Employees, full-time..... " | .. | .. | .. | .. | .. | .. |
| 38 | Net sales..... \$ | .. | .. | .. | .. | .. | .. |

¹ 1876. ² 1875.
and inland international.

³ Fiscal years.

⁴ Fiscal years prior to 1941.

⁵ Includes sea-going

⁶ Includes Atlantic and Pacific overseas services of Canadian carriers from 1951.

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

| 1931 | 1941 | 1951 | 1953 | 1954 | 1955 | 1956 | |
|----------------------------|---------------|------------------------|------------------------------|------------------------------|------------------------------|------------------------------|----|
| 42,280 | 42,441 | 42,956 ● | 43,163 | 43,132 | 43,444 | 43,652 | 1 |
| 4,232,022,088 | 3,397,488,564 | 3,571,693,932 ● | 3,861,756,258 | 3,975,594,115 | 4,108,574,616 | 4,185,193,864 | 2 |
| 26,396,812 | 29,779,241 | 30,995,604 ● | 28,736,159 | 28,396,528 | 27,229,962 | 25,893,163 | 3 |
| 74,129,694 | 116,808,091 | 161,260,521 ● | 156,249,259 | 143,194,840 | 167,862,156 | 181,935,822 | 4 |
| 358,549,382 | 538,291,947 | 1,088,583,789 ● | 1,205,935,414 | 1,095,440,918 | 1,198,351,601 | 1,397,755,407 | 5 |
| 321,025,588 | 403,733,542 | 977,577,062 ● | 1,100,393,836 | 1,019,534,989 | 1,048,564,681 | 1,235,899,339 | 6 |
| .. | .. | .. | .. | 1,236,965,743 ● | 1,178,952,495 | 1,151,928,811 | 7 |
| .. | .. | .. | .. | 205,271,859 ● | 198,885,300 | 203,888,474 | 8 |
| .. | .. | .. | .. | 127,238,090 ● | 125,419,886 | 129,213,139 | 9 |
| 378,094 | 561,489 | 511,878 ● | 517,809 | 524,055 | 455,404 | 453,582 | 10 |
| 66,250,229 | 37,237,954 | 192,810,362 ● | 234,334,349 | 229,087,011 | 294,343,957 | 421,146,178 | 11 |
| 1,200,668 | 1,572,784 | 2,872,420 ● | 3,430,672 | 3,644,589 | 3,948,652 | 4,230,647 | 12 |
| 42,231,027 | 91,139,300 | 252,213,001 ● | 307,664,164 | 329,552,161 | 377,927,301 | 422,523,915 | 13 |
| 8,966 | 8,667 | 15,292 ● | 16,181 | 16,568 | 17,188 | 17,653 | 14 |
| 1,484,423 | 1,271,811 | 1,659,351 ● | 1,694,715 | 1,632,306 | 2,316,396 | 2,347,311 | 15 |
| 45,834,452 | 31,452,400 | 47,508,342 ● | 56,589,078 | 54,767,687 | 58,018,365 | 63,105,100 | 16 |
| 45,077,424 | 33,313,400 | 52,750,461 ● | 61,962,634 | 59,578,143 | 60,306,168 | 67,415,232 | 17 |
| 90,911,876 | 64,765,800 | 100,258,803 ● | 118,551,712 | 114,345,830 | 118,324,533 | 130,520,332 | 18 |
| 47,134,652 | 48,107,158 | 60,802,798 ● | 67,417,391 | 64,291,085 | 67,228,840 | 75,220,366 | 19 |
| 47,540,555 | 46,433,320 | 55,609,082 ● | 62,022,657 | 60,247,848 | 64,889,982 | 76,857,713 | 20 |
| 94,675,207 | 94,540,478 | 116,411,880 ● | 129,440,048 | 124,538,933 | 132,118,822 | 152,078,079 | 21 |
| 126,633 | 100,092 | 93,512 | 112,082 | 116,231 | 178,932 | 123,241 | 22 |
| 16,189,074 | 23,453,367 | 29,325,034 | 33,373,064 | 30,070,701 | 34,874,198 | 40,016,565 | 23 |
| 7,046,276 | 12,508,390 | 52,578,934 ● | 64,076,912 | 61,582,481 | 83,805,304 | 101,723,710 | 24 |
| 4,073,552 | 56,723,714 | 689,819,451 ● | 942,269,095 | 1,066,805,242 | 1,223,825,448 | 1,547,279,882 | 25 |
| 2,372,467 | 16,559,611 | 59,199,354 ● | 177,451,345 | 109,299,356 | 233,561,830 | 318,042,182 | 26 |
| 470,461 | 3,411,971 | 16,824,652 ● | 20,319,952 | 24,228,571 | 26,616,505 | 27,914,288 | 27 |
| 53,228 | 52,246 | 53,580 ● | 52,727 | 46,284 | 48,067 | 48,062 | 28 |
| 1,364,200 | 1,562,146 | 3,113,766 ● | 3,606,407 | 3,860,269 | 4,151,678 | 4,499,325 | 29 |
| 23,825 | 20,103 | 47,887 ● | 50,540 | 51,929 | 55,673 | 60,121 | 30 |
| 30,416,107 | 40,383,366 | 90,454,678 ● | 112,024,245 | 111,107,484 | 131,315,049 | 137,696,621 | 31 |
| 36,292,604 | 38,699,674 | 91,781,466 ● | 105,553,191 | 113,551,752 | 123,611,055 | 127,421,739 | 32 |
| 167,749,651 | 173,565,550 | 511,915,621 ● | 623,266,884 | 676,080,657 | 690,824,787 | 725,930,733 | 33 |
| 13,140 ⁹ | 24,758 | 26,167 ● | .. | .. | .. | .. | 34 |
| 90,564 ⁹ | 117,471 | 178,658 ⁹ ● | .. | .. | .. | .. | 35 |
| 3,325,210,300 ⁹ | 5,290,751,000 | 224,526 ⁹ ● | .. | .. | .. | .. | 36 |
| 124,608 ⁹ | 136,990 | 14,401,036,700 ● | .. | .. | .. | .. | 37 |
| 238,683 ⁹ | 297,047 | 153,034 ● | .. | .. | .. | .. | 38 |
| 2,735,740,000 ⁹ | 297,047 | 454,794 ⁹ ● | .. | .. | .. | .. | 39 |
| | 3,414,613,000 | 603,891 ⁹ ● | .. | .. | .. | .. | 40 |
| | | 10,693,097,000 ● | 12,128,034,000 ¹² | 12,065,758,000 ¹² | 13,111,895,000 ¹² | 14,088,724,000 ¹² | 41 |

⁷ As at June 30.
minimum.⁸ Excludes rural lines in Saskatchewan.
¹¹ Average maximum.⁹ Census figures for 1930.
¹² Estimated on intercensal survey.¹⁰ Average

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

| Item | | 1871 | 1881 | 1891 | 1901 | 1911 | 1921 |
|---|---|---------|---------|------------|------------|------------|--------------|
| Wholesale and Retail Trade—concl. | | | | | | | |
| 1 | Services— | | | | | | |
| | Establishments..... No. | .. | .. | .. | .. | .. | .. |
| 2 | Employees..... " | .. | .. | .. | .. | .. | .. |
| 3 | Receipts..... \$ | .. | .. | .. | .. | .. | .. |
| 4 | Commercial Failures¹ No. | .. | .. | 1,861 | 1,341 | 1,332 | 2,451 ● |
| 5 | Liabilities..... \$ | .. | .. | 16,723,939 | 10,811,671 | 13,491,196 | 73,299,111 ● |
| Foreign Trade—² | | | | | | | |
| 6 | Exports, domestic..... \$'000 | 57,630 | 83,945 | 88,672 | 177,431 | 274,317 | 1,189,164 |
| 7 | Re-exports..... \$'000 | 9,853 | 13,375 | 8,799 | 17,078 | 15,684 | 21,264 |
| 8 | Imports, for consumption..... \$'000 | 84,214 | 90,488 | 111,534 | 177,931 | 452,725 | 1,240,159 |
| | Totals, Foreign Trade..... \$'000 | 151,698 | 187,808 | 209,004 | 372,440 | 742,725 | 2,450,587 |
| 9 | Domestic exports to all Commonwealth..... \$'000 | 25,346 | 45,980 | 47,137 | 100,748 | 148,967 | 403,452 |
| 10 | Exports to United Kingdom..... \$'000 | 21,734 | 42,637 | 43,244 | 92,858 | 132,157 | 312,845 |
| 11 | Imports from all Commonwealth..... \$'000 | 51,317 | 45,514 | 44,337 | 46,653 | 129,468 | 266,003 |
| 12 | Imports from United Kingdom..... \$'000 | 48,498 | 42,885 | 42,019 | 42,820 | 109,935 | 213,974 |
| 13 | Exports to United States..... \$'000 | 29,164 | 34,038 | 37,743 | 67,984 | 104,116 | 542,323 |
| 14 | Imports from United States..... \$'000 | 27,186 | 36,339 | 52,033 | 107,378 | 275,824 | 856,177 |
| 15 | Exports to other countries..... \$'000 | 3,120 | 3,926 | 3,791 | 8,700 | 21,233 | 243,389 |
| 16 | Imports from other countries..... \$'000 | 5,712 | 8,635 | 15,163 | 23,900 | 47,433 | 117,979 |
| EXPORTS, DOMESTIC, BY CHIEF ITEMS— | | | | | | | |
| 17 | Wheat..... '000 bu. | 1,749 | 2,524 | 2,108 | 9,740 | 45,802 | 129,215 |
| | \$'000 | 1,982 | 2,594 | 1,583 | 6,872 | 45,521 | 310,952 |
| 18 | Wheat flour..... '000 bbl. | 306 | 440 | 297 | 1,119 | 3,049 | 6,017 |
| | \$'000 | 1,610 | 2,173 | 1,389 | 4,015 | 13,855 | 66,520 |
| 19 | Oats..... '000 bu. | 542 | 2,927 | 261 | 8,155 | 5,432 | 14,321 |
| | \$'000 | 231 | 1,192 | 130 | 2,491 | 2,145 | 14,152 |
| 20 | Barley..... '000 bu. | .. | 8,811 | 4,892 | 2,386 | 1,545 | 8,564 |
| | \$'000 | .. | 6,261 | 2,930 | 1,123 | 831 | 11,469 |
| 21 | Bacon, hams, shoulders and sides..... '000 cwt. | 103 | 104 | 76 | 1,055 | 599 | 982 |
| | \$'000 | 1,019 | 758 | 628 | 11,778 | 8,526 | 31,492 |
| 22 | Beef and veal..... '000 cwt. | 41 | 14 | 3 | 97 | 10 | 520 |
| | \$'000 | 241 | 84 | 16 | 813 | 92 | 8,331 |
| 23 | Cheese..... '000 lb. | 8,271 | 49,256 | 106,202 | 195,926 | 181,896 | 133,620 |
| | \$'000 | 1,110 | 5,510 | 9,509 | 20,697 | 20,740 | 37,147 |
| 24 | Planks and boards..... M ft. | 829,550 | 652,621 | 775,793 | 735,695 | 1,127,723 | 1,604,463 |
| | \$'000 | 8,356 | 7,102 | 8,627 | 9,381 | 21,510 | 71,079 |
| 25 | Woodpulp..... '000 cwt. | .. | .. | .. | .. | 6,589 | 14,363 |
| | \$'000 | .. | .. | 281 | 1,937 | 5,716 | 71,552 |
| 26 | Newsprint..... '000 cwt. | .. | .. | .. | .. | .. | 15,113 |
| | \$'000 | .. | .. | .. | .. | 3,092 | 78,922 |
| 27 | Farm implements..... \$'000 | .. | 31 | 253 | 1,743 | 5,912 | 12,527 |
| 28 | Copper..... '000 lb. | 6,246 | 39,604 | 10,994 | 26,346 | 55,005 | 74,176 |
| | \$'000 | 120 | 150 | 505 | 2,659 | 5,575 | 12,748 |
| 29 | Nickel..... '000 lb. | .. | .. | 5,352 | 9,538 | 34,768 | 47,018 |
| | \$'000 | .. | .. | 240 | 958 | 3,842 | 9,405 |
| 30 | Lead..... '000 cwt. | 7 | .. | 7 | 656 | 32 | 111 |
| | \$'000 | 7 | .. | 7 | 2,517 | 101 | 526 |
| 31 | Zinc..... '000 cwt. | .. | .. | .. | .. | .. | 177 |
| | \$'000 | .. | .. | .. | .. | .. | 964 |
| 32 | Asbestos..... '000 ton | .. | .. | 7 | 27 | 70 | 191 |
| | \$'000 | .. | .. | 514 | 865 | 2,076 | 12,633 |
| EXPORTS, DOMESTIC— | | | | | | | |
| 33 | Vegetable products (except chemicals, fibres and wood) \$'000 | .. | .. | 13,743 | 25,542 | 84,368 | 482,140 |
| 34 | Animals and their products (except chemicals and fibres) \$'000 | .. | .. | 36,399 | 68,465 | 69,693 | 188,360 |
| 35 | Fibres, textiles and textile products..... \$'000 | .. | .. | 873 | 1,881 | 1,819 | 18,784 |
| 36 | Wood, wood products and paper..... \$'000 | .. | .. | 25,351 | 33,100 | 56,335 | 284,561 |
| 37 | Iron and its products..... \$'000 | .. | .. | 557 | 3,779 | 9,884 | 76,501 |
| 38 | Non-ferrous metals and their products..... \$'000 | .. | .. | 1,619 | 33,395 | 34,001 | 45,939 |
| 39 | Non-metallic minerals and their products (except chemicals)..... \$'000 | .. | .. | 3,989 | 7,356 | 10,038 | 40,345 |
| 40 | Chemicals and allied products \$'000 | .. | .. | 851 | 792 | 3,089 | 20,143 |
| 41 | All other commodities..... \$'000 | .. | .. | 5,291 | 3,122 | 5,089 | 32,390 |
| | Totals, Exports, Domestic. \$'000 | 57,630 | 83,945 | 88,672 | 177,431 | 274,317 | 1,189,164 |

¹ Census figures for 1930.² Figures include 5,542 hotels with 46,556 average minimum and 64,062 average maximum full-time employees and with receipts of \$348,401,100.³ Average minimum.⁴ Average

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

| 1931 | 1941 | 1951 | 1953 | 1954 | 1955 | 1956 | |
|--------------------------|-------------|------------------------|------------|------------|------------|------------|-----------|
| 42,223 ¹ | 49,271 | 58,748 ² ● | .. | .. | .. | .. | 1 |
| 55,257 ¹ | 62,781 | 143,800 ² ● | .. | .. | .. | .. | 2 |
| 249,455,900 ¹ | 254,678,000 | 190,048 ² ● | .. | .. | .. | .. | 3 |
| 2,563 | 882 | 1,085,757,900 ● | .. | .. | .. | .. | 4 |
| 52,987,554 | 6,959,000 | 797 | 1,039 | 1,381 | 1,352 | 1,320 | 5 |
| | | 19,048,000 | 30,304,000 | 52,017,000 | 38,148,000 | 51,678,000 | |
| 587,653 | 1,621,003 | 3,914,460 ● | 4,117,406 | 3,881,272 | 4,281,784 | 4,789,746 | 6 |
| 11,907 | 19,451 | 48,924 ● | 55,195 | 65,645 | 69,499 | 73,397 | 7 |
| 628,098 | 1,448,792 | 4,084,856 ● | 4,382,830 | 4,093,196 | 4,712,370 | 5,705,449 | 8 |
| 1,227,659 | 3,089,246 | 8,048,241 ● | 8,555,432 | 8,040,113 | 9,063,653 | 10,568,592 | |
| 219,781 | 878,641 | 872,407 ● | 897,585 | 848,461 | 1,006,437 | 1,055,922 | 9 |
| 170,597 | 658,228 | 631,461 ● | 665,232 | 653,408 | 769,313 | 812,706 | 10 |
| 152,000 | 359,942 | 727,089 ● | 623,962 | 574,231 | 610,303 | 705,911 | 11 |
| 109,468 | 219,419 | 420,985 ● | 453,391 | 392,472 | 400,531 | 484,679 | 12 |
| 240,197 | 599,713 | 2,297,675 ● | 2,418,915 | 2,317,153 | 2,559,343 | 2,818,655 | 13 |
| 393,775 | 1,004,498 | 2,812,927 ● | 3,221,214 | 2,961,380 | 3,452,178 | 4,161,667 | 14 |
| 127,675 | 142,649 | 744,379 ● | 800,906 | 715,658 | 716,004 | 915,169 | 15 |
| 82,323 | 84,351 | 544,840 ● | 537,654 | 557,586 | 649,889 | 837,871 | 16 |
| 194,826 | 196,646 | 237,061 ● | 290,073 | 208,262 | 189,967 | 302,770 | 17 |
| 117,871 | 161,856 | 441,043 ● | 567,907 | 375,339 | 338,216 | 513,081 | |
| 5,697 | 11,439 | 12,079 ● | 11,144 | 10,074 | 8,601 | 8,583 | 18 |
| 20,207 | 44,807 | 113,854 ● | 102,160 | 88,029 | 74,442 | 71,549 | |
| 11,177 | 7,692 | 59,273 ● | 80,393 | 40,244 | 12,529 | 10,112 | 19 |
| 3,768 | 3,295 | 53,899 ● | 60,403 | 32,467 | 11,930 | 9,316 | |
| 24,260 | 3,209 | 43,906 ● | 109,372 | 77,013 | 63,906 | 81,095 | 20 |
| 9,924 | 1,959 | 58,822 ● | 136,729 | 89,363 | 76,461 | 94,977 | |
| 128 | 4,646 | 61 ● | 70 | 81 | 99 | 80 | 21 |
| 2,035 | 77,494 | 3,650 ● | 5,508 | 6,349 | 6,463 | 5,663 | |
| 37 | 62 | 934 ● | 255 | 186 | 87 | 128 | 22 |
| 430 | 996 | 50,965 ● | 9,267 | 4,538 | 2,721 | 3,644 | |
| 84,788 | 92,331 | 30,653 ● | 16,429 | 5,006 | 13,749 | 12,216 | 23 |
| 10,595 | 13,555 | 10,232 ● | 4,518 | 1,544 | 4,045 | 4,178 | |
| 937,733 | 2,282,139 | 3,435,510 ● | 3,364,762 | 4,093,512 | 4,603,164 | 3,936,161 | 24 |
| 20,116 | 74,205 | 312,198 ● | 282,103 | 324,724 | 385,313 | 326,445 | |
| 12,451 | 28,234 | 44,866 ● | 39,003 | 43,608 | 47,323 | 47,480 | 25 |
| 30,057 | 85,898 | 365,133 ● | 248,675 | 271,418 | 297,304 | 304,536 | |
| 40,165 | 65,240 | 102,241 ● | 107,505 | 110,431 | 115,263 | 119,344 | 26 |
| 107,233 | 154,357 | 536,372 ● | 619,033 | 635,670 | 665,877 | 708,385 | |
| 2,889 | 30,972 | 106,438 ● | 74,316 | 76,771 | 76,010 | 67,477 | 27 |
| 196,789 | 430,087 | 304,193 ● | 399,136 | 445,031 | 459,706 | 480,729 | 28 |
| 17,065 | 40,951 | 81,691 ● | 117,351 | 127,334 | 163,924 | 194,206 | |
| 63,529 | 275,190 | 262,366 ● | 290,236 | 317,438 | 347,759 | 353,676 | 29 |
| 14,182 | 67,680 | 136,689 ● | 162,542 | 182,154 | 215,169 | 222,909 | |
| 2,208 | 3,818 | 2,536 ● | 3,302 | 3,541 | 3,030 | 2,596 | 30 |
| 4,660 | 13,525 | 45,290 ● | 37,835 | 40,530 | 37,202 | 35,034 | |
| 2,391 | 3,988 | 6,105 ● | 7,105 | 7,826 | 8,198 | 7,770 | 31 |
| 5,565 | 12,278 | 83,669 ● | 57,572 | 58,392 | 70,558 | 74,011 | |
| 159 | 454 | 942 ● | 879 | 888 | 1,002 | 964 | 32 |
| 5,175 | 19,411 | 80,333 ● | 83,972 | 82,566 | 94,804 | 99,895 | |
| 209,761 | 285,709 | 894,210 ● | 1,096,763 | 803,481 | 752,348 | 974,964 | 33 |
| 70,938 | 201,731 | 348,033 ● | 250,919 | 269,861 | 263,621 | 260,249 | 34 |
| 5,394 | 30,820 | 36,858 ● | 24,333 | 20,969 | 22,816 | 22,568 | 35 |
| 185,493 | 387,113 | 1,399,076 ● | 1,295,396 | 1,378,354 | 1,520,921 | 1,514,458 | 36 |
| 19,086 | 239,901 | 342,299 ● | 358,438 | 300,692 | 398,782 | 458,849 | 37 |
| 56,159 | 244,012 | 569,870 ● | 682,183 | 717,073 | 852,923 | 959,471 | 38 |
| 14,977 | 45,172 | 131,529 ● | 147,393 | 145,573 | 206,200 | 292,100 | 39 |
| 10,849 | 58,676 | 131,690 ● | 137,885 | 153,238 | 183,507 | 182,854 | 40 |
| 14,995 | 127,869 | 60,895 ● | 124,095 | 92,031 | 80,666 | 124,233 | 41 |
| 587,653 | 1,621,003 | 3,914,460 ● | 4,117,406 | 3,881,272 | 4,281,784 | 4,789,746 | |

maximum. ¹ Dun and Bradstreet figures. Newfoundland excluded in 1941.

² Less than \$500.

⁶ Fiscal years prior to

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

| | Item | 1871 | 1881 | 1891 | 1901 | 1911 | 1921 |
|--|---|-------------|-------------|-------------|-------------|---------------|--------------------------|
| Foreign Trade—concluded | | | | | | | |
| IMPORTS FOR CONSUMPTION— | | | | | | | |
| 1 | Vegetable products (except chemicals, fibres and wood). \$'000 | .. | .. | 24,212 | 38,036 | 79,214 | 259,431 |
| 2 | Animals and their products (except chemicals and fibres). \$'000 | .. | .. | 8,081 | 14,023 | 30,672 | 61,722 |
| 3 | Fibres, textiles and textile products. \$'000 | .. | .. | 28,670 | 37,285 | 87,916 | 243,608 |
| 4 | Wood, wood products and paper. \$'000 | .. | .. | 5,203 | 8,197 | 26,852 | 57,449 |
| 5 | Iron and its products. \$'000 | .. | .. | 15,143 | 29,956 | 91,968 | 245,626 |
| 6 | Non-ferrous metals and their products. \$'000 | .. | .. | 3,811 | 7,167 | 27,580 | 55,651 |
| 7 | Non-metallic minerals and their products (except chemicals). \$'000 | .. | .. | 14,139 | 21,255 | 53,431 | 206,095 |
| 8 | Chemicals and allied products. \$'000 | .. | .. | 3,698 | 5,685 | 12,472 | 37,887 |
| 9 | All other commodities. \$'000 | .. | .. | 8,577 | 16,327 | 42,620 | 72,688 |
| | Totals, Imports. \$'000 | 84,214 | 90,488 | 111,534 | 177,931 | 452,725 | 1,240,159 |
| Prices— | | | | | | | |
| 10 | Wholesale indexes (1935-39=100)... | 81.3 | 72.4 | 67.1 | 63.7 | 81.1 | 143.4 |
| 11 | Consumer price index (1949=100)... | .. | .. | .. | .. | .. | 80.9 |
| Federal Finance—¹ | | | | | | | |
| 12 | Customs duties. \$ | 11,841,105 | 18,406,092 | 23,305,218 | 28,293,930 | 71,838,089 | 163,266,804 |
| 13 | Excise duties. \$ | 4,295,945 | 5,343,022 | 6,914,850 | 10,318,266 | 16,869,837 | 37,118,367 |
| 14 | Income tax. \$ | ... | ... | ... | ... | ... | 46,381,824 |
| 15 | Sales tax (net). \$ | ... | ... | ... | ... | ... | 38,114,539 |
| 16 | Total receipts from taxation. \$ | 16,320,369 | 23,942,139 | 30,220,068 | 38,612,196 | 88,707,926 | 168,770,498 |
| 17 | Per capita receipts from taxes. \$ | 4.50 | 5.63 | 6.32 | 7.28 | 12.69 | 43.10 |
| 18 | Total revenue. \$ | 19,335,561 | 29,635,298 | 38,579,311 | 52,514,701 | 117,780,409 | 436,292,185 |
| 19 | Revenue per capita. \$ | 5.34 | 6.96 | 8.07 | 9.91 | 16.87 | 50.99 |
| 20 | Total expenditure. \$ | 19,293,478 | 33,796,643 | 40,793,208 | 57,982,866 | 122,861,250 | 528,302,513 |
| 21 | Expenditure per capita. \$ | 5.32 | 7.94 | 8.54 | 10.94 | 17.58 | 61.75 |
| 22 | Gross debt. \$ | 115,492,683 | 199,861,537 | 289,899,230 | 354,732,433 | 474,941,487 | 2,902,482,117 |
| 23 | Net assets. \$ | 37,786,165 | 44,465,757 | 52,090,199 | 86,252,429 | 134,899,435 | 561,603,133 |
| 24 | Net debt. \$ | 77,706,518 | 155,395,780 | 237,809,031 | 268,480,004 | 340,042,052 | 2,340,878,984 |
| Provincial Finance—¹ | | | | | | | |
| 25 | Gross ordinary revenue. \$ | 5,518,946 | 7,858,698 | 10,693,815 | 14,074,991 | 40,706,948 | 102,030,458 |
| 26 | Gross ordinary expenditure. \$ | 4,935,008 | 8,119,701 | 11,628,353 | 14,146,056 | 38,144,511 | 102,569,515 |
| National Accounts— | | | | | | | |
| 27 | National income. \$'000,000 | .. | .. | .. | .. | .. | .. |
| Note Circulation— | | | | | | | |
| 28 | Chartered bank notes. \$ | 20,914,637 | 28,516,692 | 33,061,042 | 50,601,205 | 89,982,223 | 194,621,710 |
| 29 | Bank of Canada and other notes ⁷ . \$ | 7,244,341 | 14,539,795 | 16,176,316 | 27,898,509 | 99,308,945 | 271,531,162 |
| Chartered Banks— | | | | | | | |
| 30 | Capital, paid-up. \$ | 37,095,340 | 59,534,977 | 60,700,697 | 67,035,615 | 103,009,256 | 129,096,339 |
| 31 | Assets. \$ | 125,273,631 | 200,613,879 | 269,307,032 | 531,829,324 | 1,303,131,260 | 2,841,782,079 |
| 32 | Liabilities to the public. \$ | 80,250,974 | 127,176,249 | 187,332,325 | 420,003,743 | 1,097,661,393 | 2,556,454,190 |
| 33 | Deposits payable on demand. \$ | .. | .. | .. | 95,169,631 | 304,801,755 | 551,914,643 |
| 34 | Deposits payable after notice. \$ | .. | .. | .. | 221,624,664 | 568,976,209 | 1,289,347,063 |
| 35 | Totals, deposits ^{7,9} . \$ | 56,287,391 | 94,346,481 | 148,396,968 | 349,573,327 | 980,433,788 | 2,264,586,736 |
| 36 | Cheque payments. \$'000 | .. | .. | .. | .. | .. | 27,157,474 ¹⁰ |
| Savings Banks— | | | | | | | |
| 37 | Deposits in Post Office. \$ | 2,497,260 | 6,208,227 | 21,738,648 | 39,950,813 | 43,330,579 | 29,010,619 |
| 38 | Deposits in Government banks. \$ | 2,072,037 | 9,628,445 | 17,661,378 | 16,098,146 | 14,673,752 | 10,150,189 |
| 39 | Deposits in special banks. \$ | 5,766,712 | 7,685,888 | 10,982,232 | 19,125,097 | 34,770,386 | 58,576,775 |
| Loan Companies (Federal)— | | | | | | | |
| 40 | Assets. \$ | 8,392,464 | 73,906,638 | 125,041,146 | 158,523,307 | 389,701,988 | 96,698,810 |
| 41 | Liabilities. \$ | 8,392,958 | 71,965,017 | 123,915,704 | 158,523,307 | 389,701,988 | 95,281,122 |
| Loan Companies (Provincial)— | | | | | | | |
| 42 | Assets. \$ | .. | .. | .. | .. | .. | 86,144,153 ¹¹ |
| 43 | Liabilities. \$ | .. | .. | .. | .. | .. | 87,385,807 ¹¹ |

¹ Unless otherwise stated, figures are for fiscal years ended within years given.² Figures for years commencing with 1953 are not comparable with those prior to that year as they exclude refunds applicable to otherexcise duties. ³ Fiscal years ended nearest Dec. 31, 1950, i.e., Mar. 31, 1951 for most provinces. ⁴ Includes Yukon Territory in this and subsequent years. ⁵ Includes the Northwest Territories in this and subsequent years.⁶ In January 1950, the chartered banks' liability for such of their notes as then remained

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

| 1931 | 1941 | 1951 | 1953 | 1954 | 1955 | 1956 | |
|---------------|--------------------------|------------------------------|--------------------------|-----------------------------|----------------------------|----------------|----|
| 134,433 | 171,835 | 542,641 ● | 488,368 | 540,289 | 567,475 | 628,777 | 1 |
| 28,630 | 34,846 | 125,562 ● | 88,227 | 85,412 | 107,802 | 122,154 | 2 |
| 90,152 | 161,139 | 483,520 ● | 387,115 | 333,324 | 381,613 | 416,390 | 3 |
| 34,923 | 36,739 | 137,047 ● | 160,951 | 166,001 | 195,958 | 228,208 | 4 |
| 116,209 | 431,622 | 1,332,251 ● | 1,531,556 | 1,322,497 | 1,605,968 | 2,231,354 | 5 |
| 38,667 | 94,758 | 290,848 ● | 364,571 | 357,185 | 398,793 | 491,539 | 6 |
| 106,088 | 189,954 | 684,535 ● | 658,476 | 599,216 | 663,684 | 765,971 | 7 |
| 31,337 | 65,352 | 191,813 ● | 221,834 | 220,406 | 260,499 | 288,587 | 8 |
| 47,659 | 262,516 | 296,638 ● | 481,733 | 468,866 | 530,578 | 532,469 | 9 |
| 628,098 | 1,448,792 | 4,084,856 ● | 4,382,830 | 4,093,196 | 4,712,370 | 5,705,449 | |
| 94.0 | 116.4 | 240.2 | 220.7 | 217.0 | 218.9 | 225.6 | 10 |
| 67.9 | 69.6 | 113.7 | 115.5 | 116.2 | 116.4 | 118.1 | 11 |
| 131,208,955 | 130,757,011 | 295,721,750 ● | 389,442,109 | 407,312,241 | 397,228,330 | 481,239,668 | 12 |
| 57,746,808 | 88,607,559 | 241,046,174 ● | 241,360,370 | 226,732,460 | 226,458,438 | 249,383,313 | 13 |
| 71,048,022 | 248,143,022 | 1,513,135,510 ● | 2,473,790,089 | 2,432,603,505 | 2,265,297,267 | 2,279,503,232 | 14 |
| 20,783,944 | 179,701,224 | 460,120,405 ● | 566,233,167 ² | 587,331,544 | 572,214,713 | 641,510,469 | 15 |
| 296,276,396 | 778,175,450 | 2,785,349,899 ● | 3,997,592,937 | 4,003,584,453 | 3,773,438,080 | 3,995,721,170 | 16 |
| 29.02 | 68.37 | 203.13 ● | 277.03 | 270.86 | 248.33 | 256.12 | 17 |
| 356,160,876 | 872,169,645 | 3,112,535,948 ● | 4,360,822,789 | 4,396,319,583 | 4,123,513,300 | 4,400,046,639 | 18 |
| 35.94 | 76.63 | 226.99 ● | 302.21 | 297.43 | 271.37 | 282.04 | 19 |
| 440,008,855 | 1,249,601,446 | 2,901,241,698 ● | 4,337,275,512 | 4,350,522,378 | 4,275,362,888 | 4,433,127,636 | 20 |
| 43.26 | 109.80 | 211.58 ● | 300.57 | 294.33 | 281.36 | 284.16 | 21 |
| 2,610,265,699 | 5,018,928,037 | 16,923,307,028 ● | 17,918,490,812 | 17,923,189,502 | 17,951,491,464 | 19,124,232,779 | 22 |
| 348,653,762 | 1,370,236,588 | 5,489,992,080 ● | 6,756,756,543 | 6,807,252,438 | 6,688,411,310 | 7,843,863,815 | 23 |
| 2,261,611,937 | 3,648,691,449 | 11,433,314,948 ● | 11,161,734,269 | 11,115,937,064 | 11,263,080,154 | 11,280,368,964 | 24 |
| 179,143,480 | 404,791,000 ^a | 1,139,026,000 ^{a,4} | 1,369,183,000 | 1,465,614,000 | 1,558,734,000 ^b | 1,771,239,000 | 25 |
| 190,754,202 | 349,818,000 ^a | 1,040,871,000 ^{a,4} | 1,207,475,000 | 1,295,194,000 | 1,411,740,000 ^b | 1,588,396,000 | 26 |
| 3,333 | 6,563 | 17,138 ● | 19,133 | 18,794 | 20,740 | 23,049 | 27 |
| 128,881,241 | 78,761,049 | " | " | " | " | " | 28 |
| 153,079,362 | 406,433,409 | 1,360,679,422 | 1,530,102,146 | 1,623,456,907 | 1,738,490,823 | 1,868,703,781 | 29 |
| 144,674,853 | 145,500,000 | 146,502,115 ● | 149,954,371 | 168,218,000 ^a | 180,998,000 | 195,348,000 | 30 |
| 3,066,018,472 | 4,008,381,256 | 9,384,800,263 ● | 10,334,778,308 | 11,433,157,000 ^a | 12,701,736,000 | 13,427,896,000 | 31 |
| 2,741,554,219 | 3,711,870,680 | 9,019,780,755 ● | 9,945,599,866 | 10,920,704,000 ^a | 12,146,344,000 | 12,780,895,000 | 32 |
| 578,604,394 | 1,088,198,370 | 2,711,524,845 ● | 3,081,380,359 | 3,597,243,000 ^a | 3,915,196,000 | 4,180,355,000 | 33 |
| 1,437,976,832 | 1,616,129,007 | 4,592,929,318 ● | 5,098,833,001 | 5,615,070,000 ^a | 6,096,401,000 | 6,451,347,000 | 34 |
| 2,422,834,828 | 3,464,781,844 | 8,464,510,837 ● | 9,482,574,676 | 10,713,131,000 ^a | 11,904,011,000 | 12,531,329,000 | 35 |
| 31,586,468 | 39,242,957 | 112,184,633 ● | 137,416,847 | 148,062,796 | 161,350,878 | 192,289,896 | 36 |
| 24,750,227 | 22,176,633 | 37,661,921 | 39,322,230 | 37,792,914 | 36,780,667 | 36,164,460 | 37 |
| 69,820,422 | 76,391,775 | 193,982,871 | 214,122,001 | 219,372,081 | 237,816,198 | 256,526,482 | 38 |
| 147,094,183 | 130,795,391 | 203,103,850 | 217,019,970 | 255,446,553 | 281,004,269 | 296,715,805 | 40 |
| 146,046,087 | 130,787,116 | 165,768,886 | 184,448,041 | 221,612,649 | 245,606,324 | 258,245,799 | 41 |
| 65,728,238 | 58,220,073 | 88,991,635 | 106,571,244 | 117,936,572 | 129,589,371 | 140,453,366 | 42 |
| 66,387,987 | 58,220,073 | 63,699,805 | 78,117,467 | 88,083,833 | 97,917,400 | 105,577,295 | 43 |

outstanding was transferred to the Bank of Canada.

¹ As at June 30 from 1871 to 1901. Annual averages of month-end figures from 1911 to 1953. As at Dec. 31 for 1954 and subsequent years.² Includes deposits of Federal and Provincial Governments and also deposits elsewhere than in Canada from 1901.³ 1924.⁴ 1922.

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—concluded

| | Item | 1871 | 1881 | 1891 | 1901 | 1911 | 1921 |
|--|--------------------------------------|----------------|----------------|----------------|------------------|------------------|------------------|
| Licenses under the Small Loans Act— | | | | | | | |
| SMALL LOANS COMPANIES— | | | | | | | |
| 1 | Assets..... | .. | .. | .. | .. | .. | .. |
| 2 | Liabilities..... | .. | .. | .. | .. | .. | .. |
| MONEYLENDERS— | | | | | | | |
| 3 | Assets..... | .. | .. | .. | .. | .. | .. |
| 4 | Liabilities..... | .. | .. | .. | .. | .. | .. |
| Trust Companies (Federal)— | | | | | | | |
| ASSETS— | | | | | | | |
| 5 | Company funds..... | .. | .. | .. | .. | .. | 10,237,930 |
| 6 | Guaranteed funds..... | .. | .. | .. | .. | .. | 8,774,185 |
| LIABILITIES— | | | | | | | |
| 7 | Company funds..... | .. | .. | .. | .. | .. | 9,907,331 |
| 8 | Guaranteed funds..... | .. | .. | .. | .. | .. | 8,549,642 |
| 9 | ESTATES, TRUST AND AGENCY FUNDS..... | .. | .. | .. | .. | .. | 79,252,639 |
| Trust Companies (Provincial)—³ | | | | | | | |
| ASSETS— | | | | | | | |
| 10 | Company funds (par value).... | .. | .. | .. | .. | .. | 31,418,403 |
| 11 | Guaranteed funds (par value)... | .. | .. | .. | .. | .. | 32,885,302 |
| 12 | ESTATES, TRUST AND AGENCY FUNDS..... | .. | .. | .. | .. | .. | 629,953,917 |
| Dominion Fire Insurance—⁴ | | | | | | | |
| 13 | Amounts at risk, Dec. 31..... | \$ 228,453,784 | \$ 462,210,968 | \$ 759,602,191 | \$ 1,038,687,619 | \$ 2,279,868,346 | \$ 6,020,513,832 |
| 14 | Premium income for each year | \$ 2,321,716 | \$ 3,827,116 | \$ 6,168,716 | \$ 9,650,348 | \$ 20,575,255 | \$ 47,312,564 |
| 15 | Claims paid during each year.. | \$ 1,549,199 | \$ 3,169,824 | \$ 3,905,697 | \$ 6,774,956 | \$ 10,936,948 | \$ 27,572,560 |
| Provincial Fire Insurance— | | | | | | | |
| 16 | Amounts at risk, Dec. 31..... | .. | .. | .. | .. | .. | 1,269,764,435 |
| 17 | Premium income for each year. | .. | .. | .. | .. | .. | 5,545,549 |
| 18 | Claims paid during each year.. | .. | .. | .. | .. | .. | 3,544,820 |
| Dominion Life Insurance—⁴ | | | | | | | |
| 19 | Amounts in force, Dec. 31..... | \$ 45,825,935 | \$ 103,290,932 | \$ 261,475,229 | \$ 463,769,034 | \$ 950,220,771 | \$ 2,934,843,848 |
| 20 | Premium income for each year. | \$ 1,852,974 | \$ 3,094,689 | \$ 8,417,702 | \$ 15,189,854 | \$ 31,619,626 | \$ 98,864,371 |
| 21 | Claims paid during each year.. | .. | .. | .. | \$ 6,845,941 | \$ 11,051,679 | \$ 23,997,262 |
| Provincial Life Insurance— | | | | | | | |
| 22 | Amounts in force, Dec. 31..... | .. | .. | .. | .. | .. | 222,871,178 |
| 23 | Premium income for each year. | .. | .. | .. | .. | .. | 4,389,008 |
| 24 | Claims paid during each year.. | .. | .. | .. | .. | .. | 2,812,077 |

¹ Includes moneylenders.² Included with small loans companies.³ Compiled from data supplied voluntarily to the Superintendent of Insurance by provincial companies and estimated to cover about 90 p.c. of all

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—concluded

| 1931 | 1941 | 1951 | 1953 | 1954 | 1955 | 1956 | |
|--|--|--|--|---|--|--|-------------------------------------|
| 827,373 823,120 | 7,918,926 7,918,926 | 73,980,068 ● 73,980,068 ● | 154,737,883 ¹ 154,737,883 ¹ | 172,173,681 ¹ 172,173,681 ¹ | 208,517,770 ¹ 208,517,770 ¹ | 262,386,415 ¹ 262,386,415 ¹ | 1 2 |
| .. | 11,351,467 11,351,467 | 30,570,466 ● 30,570,466 ● | 2 2 | 2 2 | 2 2 | 2 2 | 3 4 |
| 15,459,347 25,718,219 | 20,596,781 38,570,855 | 28,446,331 ● 93,565,917 ● | 29,629,779 110,366,037 | 29,451,872 140,601,795 | 32,090,504 159,235,891 | 36,690,878 170,344,746 | 5 6 |
| 15,066,431 25,718,221 | 20,086,776 38,570,855 | 26,658,321 ● 93,565,917 ● | 29,048,202 110,366,037 | 28,850,642 140,601,795 | 31,905,971 159,235,891 | 36,381,834 170,344,746 | 7 8 |
| 215,698,469 | 268,596,524 | 543,983,754 ● | 631,231,540 | 663,520,956 | 734,670,479 | 815,367,349 | 9 |
| 66,338,148 125,829,165 | 58,165,471 108,912,208 | 74,399,404 ● 258,413,136 ● | 81,569,089 268,175,625 | 83,140,092 383,697,760 | 88,360,564 437,168,231 | 91,554,381 446,448,674 | 10 11 |
| 1,961,948,175 | 2,418,950,841 | 3,282,558,573 ● | 3,470,781,614 | 3,734,874,516 | 3,985,662,299 | 4,318,560,879 | 12 |
| 9,544,641,293 50,342,669 29,938,409 | 11,386,819,286 49,305,539 17,814,322 | 33,490,653,184 ● 134,496,218 ● 52,086,541 ● | 41,703,092,570 145,937,546 66,787,604 | 45,605,786,183 148,446,105 70,445,644 | 146,444,845 77,836,245 | 155,506,787 86,088,850 | 13 14 15 |
| 1,341,184,333 7,185,066 4,985,605 | 1,120,181,968 3,992,765 2,237,832 | 2,887,564,984 ● 11,614,247 ● 6,174,914 ● | 3,394,406,231 13,552,440 7,041,774 | 3,063,622,286 13,217,519 7,257,343 | 15,071,988 9,299,116 | 16,068,792 9,790,651 | 16 17 18 |
| 6,622,267,793 225,100,571 56,579,358 | 7,348,550,742 203,459,238 75,082,008 | 17,235,583,302 ● 394,019,379 ● 128,489,084 ● | 21,226,905,619 454,763,007 136,748,240 | 23,134,578,868 486,409,812 154,481,756 ² | 25,451,571,525 520,098,190 161,883,205 | 29,087,416,143 564,723,434 180,852,023 | 19 20 21 |
| 202,094,301 5,178,615 2,603,453 | 164,451,218 3,988,952 2,583,958 | 708,733,573 ● 16,806,502 ● 6,727,241 ● | 1,093,568,633 23,653,050 8,146,839 | 1,290,183,490 27,842,856 8,932,337 ² | 1,497,587,789 29,182,573 8,520,674 | 1,779,673,222 33,082,660 10,369,482 | 22 23 24 |

provincial business. The figures included all the large and most of the small provincial companies.
fraternal insurance.

² Includes annuity contracts for 1954 and subsequent years.

⁴ Excludes

APPENDIX

Certain information given in Chapter II on Constitution and Government is brought up to the date of going to press (July 1, 1958) in this Appendix.

Page 44, Table 4

Members of the Eighteenth Ministry as at July 1, 1958

(According to precedence of Ministers)

| | |
|--|----------------------------------|
| Prime Minister..... | Rt. Hon. JOHN GEORGE DIEFENBAKER |
| Minister of Public Works..... | Hon. HOWARD CHARLES GREEN |
| Minister of Finance and Receiver General..... | Hon. DONALD METHUEN FLEMING |
| Minister of Veterans Affairs..... | Hon. ALFRED JOHNSON BROOKS |
| Minister of Transport..... | Hon. GEORGE HEES |
| Solicitor General of Canada..... | Hon. LEON BALCEZ |
| Minister of National Defence..... | Hon. GEORGE RANDOLPH PEARKE |
| Minister of Trade and Commerce..... | Hon. GORDON CHURCHILL |
| Minister of Justice and Attorney General..... | Hon. EDMUND DAVEY FULTON |
| Minister of National Revenue..... | Hon. GEORGE CLYDE NOWLAN |
| Minister of Agriculture..... | Hon. DOUGLAS SCOTT HARKNESS |
| Minister of Citizenship and Immigration..... | Hon. ELLEN LOUKS FAIRCLOUGH |
| Minister of Fisheries..... | Hon. J. ANGUS MACLEAN |
| Minister of Labour..... | Hon. MICHAEL STARR |
| Postmaster General..... | Hon. WILLIAM McLEAN HAMILTON |
| Minister without Portfolio..... | Hon. JAMES MACKERRAS MACDONNELL |
| Minister without Portfolio..... | Hon. WILLIAM J. BROWNE |
| Minister of Mines and Technical Surveys..... | Hon. PAUL COMTOIS |
| Minister of National Health and Welfare..... | Hon. JAY WALDO MONTEITH |
| Minister of Northern Affairs and National Resources..... | Hon. FRANCIS ALVIN G. HAMILTON |
| Secretary of State for External Affairs..... | Hon. SIDNEY EARLE SMITH |
| Minister of Defence Production..... | Hon. RAYMOND O'HURLEY |
| Secretary of State..... | Hon. HENRI COURTEMANCE |

Page 46, Table 6

Information in continuance of the table on duration and sessions of Parliament is as follows:—

| | |
|----------------------|---|
| 23rd Parliament..... | Date of Opening, Oct. 14, 1957 Date of Dissolution, Feb. 1, 1958 |
| 24th Parliament..... | Date of Election, Mar. 31, 1958 Date of Opening of 1st Session, May 12, 1958 |

Page 51, Table 10

Members of the House of Commons, elected at the General Election of Mar. 31, 1958 are listed as follows:—

Electoral Districts, Names and Addresses of Members of the House of Commons as Elected at the Twenty-Fourth General Election, Mar. 31, 1958

NOTE.—Information supplied by the Chief Electoral Officer; Party affiliations are unofficial. P.C.=Progressive Conservative; Lib.=Liberal; C.C.F.=Co-operative Commonwealth Federation; L.-Lab.=Liberal Labour.

| Province and Electoral District | Name of Member | P.O. Address | Party Affiliation |
|-------------------------------------|-----------------------------|-------------------|-------------------|
| Newfoundland— (7 members) | | | |
| Bonavista-Twillingate..... | Hon. J. W. PICKERSGILL..... | Ottawa, Ont..... | Lib. |
| Burin-Burgeo..... | C. W. CARTER..... | Ottawa, Ont..... | Lib. |
| Grand Falls-White Bay-Labrador..... | C. R. M. GRANGER..... | St. John's..... | Lib. |
| Humber-St. George's..... | H. M. BATTEN..... | Corner Brook..... | Lib. |
| St. John's East..... | J. A. McGRATH..... | St. John's..... | P.C. |
| St. John's West..... | Hon. W. J. BROWNE..... | Ottawa, Ont..... | P.C. |
| Trinity-Conception..... | J. R. TUCKER..... | St. John's..... | Lib. |

Electoral Districts, Names and Addresses of Members of the House of Commons as Elected at the Twenty-Fourth General Election, Mar. 31, 1958—continued

| Province and Electoral District | Name of Member | P.O. Address | Party Affiliation |
|---|---------------------------|--------------------------------|-------------------|
| Prince Edward Island— (4 members) | | | |
| Kings..... | J. A. MACDONALD..... | Cardigan..... | P.C. |
| Prince..... | O. H. PHILLIPS..... | Alberton..... | P.C. |
| Queens..... | Hon. J. A. MACLEAN..... | Ottawa, Ont..... | P.C. |
| | H. MACQUARRIE..... | Victoria..... | P.C. |
| Nova Scotia— (12 members) | | | |
| Antigonish-Guysborough..... | C. A. O'LEARY..... | Antigonish..... | P.C. |
| Cape Breton North and Victoria..... | R. MUIR..... | Sydney Mines..... | P.C. |
| Cape Breton South..... | D. MACINNIS..... | Glace Bay..... | P.C. |
| Colchester-Hants..... | C. F. KENNEDY..... | Truro..... | P.C. |
| Cumberland..... | R. C. COATES..... | Amherst..... | P.C. |
| Digby-Annapolis-Kings..... | Hon. G. C. NOWLAN..... | Ottawa, Ont..... | P.C. |
| Halifax..... | R. J. MCLEAVE..... | Halifax..... | P.C. |
| | E. L. MORRIS..... | Halifax..... | P.C. |
| Inverness-Richmond..... | R. S. MACLELLAN..... | Sydney..... | P.C. |
| Pictou..... | H. R. MACEWAN..... | New Glasgow..... | P.C. |
| Queens-Lunenburg..... | L. R. CROUSE..... | Lunenburg..... | P.C. |
| Shelburne-Yarmouth-Clare..... | F. F. LEGERE..... | Pinkney's Point..... | P.C. |
| New Brunswick— (10 members) | | | |
| Charlotte..... | R. D. C. STEWART..... | St. George..... | P.C. |
| Gloucester..... | H. J. RORICHAUD..... | Caraquet..... | Lib. |
| Kent..... | H. J. MICHAUD..... | Buctouche..... | Lib. |
| Northumberland-Miramichi..... | G. R. MCWILLIAM..... | Newcastle..... | Lib. |
| Restigouche-Madawaska..... | J. C. VAN HORNE..... | Campbellton..... | P.C. |
| Royal..... | Hon. A. J. BROOKS..... | Ottawa, Ont..... | P.C. |
| Saint John-Albert..... | T. M. BELL..... | Saint John..... | P.C. |
| Victoria-Carleton..... | G. W. MONTGOMERY..... | Woodstock..... | P.C. |
| Westmorland..... | W. L. M. CREAGHAN..... | Moncton..... | P.C. |
| York-Sunbury..... | J. C. MACRAE..... | Fredericton..... | P.C. |
| Quebec— (75 members) | | | |
| Argenteuil-Deux-Montagnes..... | J.-O. LATOUR..... | St. Benoit..... | P.C. |
| Beauce..... | J.-P. RACINE..... | St. Honoré de Shenley..... | Lib. |
| Beauharnois-Salaberry..... | G. BRUCHÉSI..... | Châteauguay..... | P.C. |
| Bellechasse..... | N. DORION..... | Ottawa, Ont..... | P.C. |
| Berthier-Maskinongé-Delanaudière..... | R. PAUL..... | Louiseville..... | P.C. |
| Bonaventure..... | L. GRENIER..... | New Carlisle..... | P.C. |
| Brome-Missisquoi..... | W. H. GRAFFEY..... | Knowlton..... | P.C. |
| Chambly-Rouville..... | M. JOHNSON..... | Montreal..... | P.C. |
| Champlain..... | P. LAHAYE..... | Batiscan..... | P.C. |
| Chapleau..... | J.-J. MARTEL..... | Amos..... | P.C. |
| Charlevoix..... | M. ASSELIN..... | La Malbaie..... | P.C. |
| Châteauguay-Huntingdon- Laprairie..... | M. E. BARRINGTON..... | Ormstown..... | P.C. |
| Chicoutimi..... | V. BRASSARD..... | Chicoutimi..... | P.C. |
| Compton-Frontenac..... | G. M. STEARNS..... | Lac Mégantic..... | P.C. |
| Dorchester..... | N. DROUIN..... | St. Maxime..... | P.C. |
| Drummond-Arthabaska..... | S. BOULANGER..... | Victoriaville..... | Lib. |
| Gaspé..... | R. ENGLISH..... | Quebec..... | P.C. |
| Gatineau..... | R. LEDUC..... | Maniwaki..... | Lib. |
| Hull..... | A. CARON..... | Hull..... | Lib. |
| Îles-de-la-Madeleine..... | J. R. KEAYS..... | Gaspé..... | P.C. |
| Joliette-L'Assomption-Montcalm..... | L.-J. PIGEON..... | Joliette..... | P.C. |
| Kamouraska..... | C. RICHARD..... | Ste. Anne de la Pocatière..... | P.C. |
| Labelle..... | Hon. H. COURTEMANCHE..... | Ottawa, Ont..... | P.C. |
| Lac-Saint-Jean..... | R. PARIZEAU..... | Alma..... | P.C. |
| Lapointe..... | A. BRASSARD..... | Jonquière..... | Lib. |
| Lévis..... | M. BOURGET..... | Lévis..... | Lib. |
| Longueuil..... | P. SEVIGNY..... | St. Lambert..... | P.C. |
| Lotbinière..... | Hon. R. O'HURLEY..... | Ottawa, Ont..... | P.C. |
| Matapédia-Matane..... | J.-A. BELZILE..... | St. Léon le Grand..... | P.C. |
| Mégantic..... | G. RORERGE..... | Theftford Mines..... | Lib. |
| Montmagny-L'Islet..... | Hon. J. LESAGE..... | Quebec..... | Lib. |
| Nicolet-Yamaska..... | Hon. P. COMTOIS..... | Ottawa, Ont..... | P.C. |
| Pontiac-Témiscamingue..... | P. MARTINEAU..... | Campbell's Bay..... | P.C. |

¹ Resigned June 11, 1958 to assume leadership of Liberal Party in Quebec; seat vacant at July 1, 1958.

Electoral Districts, Names and Addresses of Members of the House of Commons as Elected at the Twenty-Fourth General Election, Mar. 31, 1958—continued

| Province and Electoral District | Name of Member | P.O. Address | Party Affiliation |
|--|------------------------------------|------------------------|-------------------|
| Quebec—concluded | | | |
| Portneuf..... | A. ROMPRÉ..... | St. Ubald..... | P.C. |
| Quebec East..... | Y.-R. TASSÉ..... | Sillery..... | P.C. |
| Quebec South..... | J. FLYNN..... | Quebec..... | P.C. |
| Quebec West..... | J.-E. BISSENETTE..... | Quebec..... | P.C. |
| Quebec-Montmorency..... | R. LAFRENIÈRE..... | Ottawa, Ont..... | P.C. |
| Richelieu-Verchères..... | L. CARDIN..... | Sorel..... | Lib. |
| Richmond-Wolfe..... | V.-F. DUROIS..... | Asbestos..... | P.C. |
| Rimouski..... | E. MORISSETTE..... | Mont Joli..... | P.C. |
| Roberval..... | J.-N. TREMBLAY..... | Ottawa, Ont..... | P.C. |
| Saint-Hyacinthe-Bagot..... | J.-H.-T. RICARD..... | St. Hyacinthe..... | P.C. |
| Saint-Jean-Iberville-Napierville..... | Y. DUFOIS..... | St. Johns..... | Lib. |
| Saint-Maurice-Lafleche..... | J.-A. RICHARD..... | Shawinigan..... | Lib. |
| Saguenay..... | P. LARUE..... | Baie Comeau..... | P.C. |
| Shefford..... | M. BOIVIN..... | Granby..... | Lib. |
| Sherbrooke..... | M. ALLARD..... | Sherbrooke..... | P.C. |
| Stanstead..... | R. LÉTOURNEAU..... | Stanstead..... | P.C. |
| Témiscouata..... | A. FRÉCHETTE..... | Cabano..... | P.C. |
| Terrebonne..... | M. DESCHAMBAULT..... | St. Jérôme..... | P.C. |
| Trois Rivières..... | Hon. L. BALGER..... | Ottawa, Ont..... | P.C. |
| Vaudreuil-Soulanges..... | J.-M. BOURRONNAIS..... | Vaudreuil..... | P.C. |
| Villeuve..... | A. DUMAS..... | Malartic..... | Lib. |
| Island of Montreal and Île Jésus— | | | |
| Cartier..... | L. CRESTOHL..... | Montreal..... | Lib. |
| Dollard..... | G. ROULEAU..... | Montreal..... | Lib. |
| Hochelaga..... | R. ETDES..... | Montreal..... | Lib. |
| Jacques Cartier-Lasalle..... | R. J. PRATT..... | Dorval..... | P.C. |
| Lafontaine..... | J. G. RATELLE..... | Montreal..... | Lib. |
| Laurier..... | Hon. L. CHEVRIER..... | Ottawa, Ont..... | Lib. |
| Laval..... | R. BOURDAGES..... | Montreal..... | P.C. |
| Maisonneuve-Rosemont..... | J.-P. DESCHATELETS..... | Montreal..... | Lib. |
| Mercier..... | A. GILLET..... | Montreal..... | P.C. |
| Mount Royal..... | A. A. MACNAUGHTON..... | Montreal..... | Lib. |
| Notre-Dame-de-Grâce..... | Hon. W. M. HAMILTON..... | Ottawa, Ont..... | P.C. |
| Outremont-Saint-Jean..... | R. BOURQUE..... | Outremont..... | Lib. |
| Papineau..... | A. MEUNIER..... | Montreal..... | Lib. |
| St. Ann..... | G. LOISELLE..... | Montreal..... | Lib. |
| Saint-Antoine-Westmount..... | A. R. WEBSTER..... | Westmount..... | P.C. |
| Saint-Denis..... | A. DENIS..... | Montreal..... | Lib. |
| Saint-Henri..... | H. "Pip" LESSARD..... | Montreal..... | Lib. |
| Saint-Jacques..... | C.-E. CAMPEAU..... | Montreal..... | P.C. |
| St. Lawrence-St. George..... | E. E. CHAMBERS..... | Montreal..... | P.C. |
| Sainte-Marie..... | G.-J. VALADE..... | Montreal..... | P.C. |
| Verdun..... | H. E. MONTEITH..... | Verdun..... | P.C. |
| Ontario— | | | |
| (85 members) | | | |
| Algoma East..... | Hon. L. B. PEARSON..... | Ottawa..... | Lib. |
| Algoma West..... | G. E. NIXON..... | Sault Ste. Marie..... | Lib. |
| Brantford..... | J. WRATEN..... | Brantford..... | P.C. |
| Brant-Haldimand..... | J. A. CHARLTON..... | Paris..... | P.C. |
| Bruce..... | A. E. ROBINSON..... | Kincardine..... | P.C. |
| Carleton..... | R. A. BELL..... | Britannia Heights..... | P.C. |
| Cochrane..... | J.-A. HAREL..... | Kapuskasing..... | Lib. |
| Dufferin-Simcoe..... | Hon. W. E. ROWE..... | Newton Robinson..... | P.C. |
| Durham..... | R. P. VIVIAN..... | Port Hope..... | P.C. |
| Elgin..... | J. A. MCBAIN..... | St. Thomas..... | P.C. |
| Essex East..... | Hon. P. J. MARTIN..... | Windsor..... | Lib. |
| Essex South..... | R. D. THRASHER..... | Windsor..... | P.C. |
| Essex West..... | N. L. SPENCER..... | Windsor..... | P.C. |
| Fort William..... | H. BADANAI..... | Port William..... | Lib. |
| Glengarry-Prescott..... | O.-F. VILLENEUVE..... | Maxville..... | P.C. |
| Grenville-Dundas..... | A. C. CASSELMAN ¹ | Prescott..... | P.C. |
| Grey-Bruce..... | E. A. WINKLER..... | Hanover..... | P.C. |
| Grey North..... | P. V. NORLE..... | Shallow Lake..... | P.C. |
| Halton..... | A. BEST..... | Georgetown..... | P.C. |
| Hamilton East..... | Q. A. MARTINI..... | Hamilton..... | P.C. |
| Hamilton South..... | R. M. T. McDONALD..... | Hamilton..... | P.C. |
| Hamilton West..... | Hon. E. L. FAIRCLOUGH..... | Ottawa..... | P.C. |
| Hastings-Frontenac..... | Hon. S. E. SMITH..... | Ottawa..... | P.C. |
| Hastings South..... | L. E. GRILLS..... | Belleville..... | P.C. |

¹ Died May 11, 1958; seat vacant at July 1, 1958.

Electoral Districts, Names and Addresses of Members of the House of Commons as Elected at the Twenty-Fourth General Election, Mar. 31, 1958—continued

| Province and Electoral District | Name of Member | P.O. Address | Party Affiliation |
|---------------------------------|----------------------------|-------------------------|-------------------|
| Ontario—concluded | | | |
| Huron..... | L. E. CARDIFF..... | Brussels..... | P.C. |
| Kenora-Rainy River..... | W. M. BENEDICKSON..... | Kenora..... | L.-Lab. |
| Kent..... | H. W. DANFORTH..... | Blenheim..... | P.C. |
| Kingston..... | B. G. ALLMARK..... | Kingston..... | P.C. |
| Lambton-Kent..... | E. J. CAMPBELL..... | Wallaceburg..... | P.C. |
| Lambton West..... | J. W. MURPHY..... | Carnlachie..... | P.C. |
| Lanark..... | G. H. DOUCETT..... | Carleton Place..... | P.C. |
| Leeds..... | H. STANTON..... | Seeley's Bay..... | P.C. |
| Lincoln..... | J. SMITH..... | St. Catharines..... | P.C. |
| London..... | G. E. HALPENNY..... | Ottawa..... | P.C. |
| Middlesex East..... | H. O. WHITE..... | Glanworth..... | P.C. |
| Middlesex West..... | W. H. A. THOMAS..... | Strathroy..... | P.C. |
| Niagara Falls..... | W. L. HOUCK..... | Niagara Falls..... | Lib. |
| Nickel Belt..... | O.-J. GODIN..... | Sudbury..... | Lib. |
| Nipissing..... | J. R. GARLAND..... | North Bay..... | Lib. |
| Norfolk..... | J. E. KNOWLES..... | Langton..... | P.C. |
| Northumberland..... | B. C. THOMPSON..... | Brighton..... | P.C. |
| Ontario..... | Hon. M. STARR..... | Ottawa..... | P.C. |
| Ottawa East..... | J.-T. RICHARD..... | Ottawa..... | Lib. |
| Ottawa West..... | G. J. McILRAITH..... | Ottawa..... | Lib. |
| Oxford..... | W. B. NESBITT..... | Woodstock..... | P.C. |
| Parry Sound-Muskoka..... | G. H. AITKEN..... | Gravenhurst..... | P.C. |
| Peel..... | J. C. PALLET..... | Erindale..... | P.C. |
| Perth..... | Hon. J. W. MONTEITH..... | Ottawa..... | P.C. |
| Peterborough..... | G. K. FRASER..... | Burleigh Falls..... | P.C. |
| Port Arthur..... | D. M. FISHER..... | Port Arthur..... | C.C.F. |
| Prince Edward-Lennox..... | C. A. MILLIGAN..... | Napanee..... | P.C. |
| Renfrew North..... | J. M. FORGIE..... | Pembroke..... | Lib. |
| Renfrew South..... | J. W. BASKIN..... | Ottawa..... | P.C. |
| Russell..... | J. O. GOUR..... | Casselman..... | Lib. |
| Simcoe East..... | P. B. RYNARD..... | Orillia..... | P.C. |
| Simcoe North..... | H. E. SMITH..... | Barrie..... | P.C. |
| Stormont..... | G. CAMPBELL..... | Ottawa..... | P.C. |
| Sudbury..... | D. R. MITCHELL..... | Sudbury..... | Lib. |
| Timiskaming..... | A. PETERS..... | New Liskeard..... | C.C.F. |
| Timmins..... | M. W. MARTIN..... | Toronto..... | C.C.F. |
| Victoria..... | C. W. HODGSON..... | Lindsay..... | P.C. |
| Waterloo North..... | O. W. WEICHEL..... | Elmira..... | P.C. |
| Waterloo South..... | W. ANDERSON..... | Galt..... | P.C. |
| Welland..... | W. H. McMILLAN..... | Thorold..... | Lib. |
| Wellington-Huron..... | W. M. HOWE..... | Arthur..... | P.C. |
| Wellington South..... | A. D. HALES..... | Guelph..... | P.C. |
| Wentworth..... | F. E. LENNARD..... | Dundas..... | P.C. |
| York Centre..... | F. C. STINSON..... | Willowdale..... | P.C. |
| York East..... | R. H. MCGREGOR..... | Toronto..... | P.C. |
| York-Humber..... | Miss M. AITKEN..... | Toronto..... | P.C. |
| York North..... | C. A. CATHERS..... | Newmarket..... | P.C. |
| York-Scarborough..... | F. McGEE..... | Don Mills..... | P.C. |
| York South..... | W. G. BEECH..... | Toronto..... | P.C. |
| York West..... | J. B. HAMILTON..... | Toronto..... | P.C. |
| City of Toronto— | | | |
| Broadview..... | Hon. G. H. HEES..... | Ottawa..... | P.C. |
| Danforth..... | R. H. SMALL..... | Toronto..... | P.C. |
| Davenport..... | M. D. MORTON..... | Toronto..... | P.C. |
| Eglinton..... | Hon. D. M. FLEMING..... | Ottawa..... | P.C. |
| Greenwood..... | Hon. J. M. MACDONNELL..... | Ottawa..... | P.C. |
| High Park..... | J. W. KUCHEREPA..... | Toronto..... | P.C. |
| Parkdale..... | A. MALONEY..... | Toronto..... | P.C. |
| Rosedale..... | D. J. WALKER..... | Toronto..... | P.C. |
| St. Paul's..... | Hon. R. MICHENER..... | Toronto..... | P.C. |
| Spadina..... | C. E. REA..... | Toronto..... | P.C. |
| Trinity..... | E. R. LOCKYER..... | Toronto..... | P.C. |
| Manitoba— | | | |
| (14 members) | | | |
| Brandon-Souris..... | W. G. DINSDALE..... | Brandon..... | P.C. |
| Churchill..... | R. SIMPSON..... | Flin Flon..... | P.C. |
| Dauphin..... | R. E. FORBES..... | Dauphin..... | P.C. |
| Lisgar..... | R. MUIR..... | Roland..... | P.C. |
| Marquette..... | J. N. MANDZIUK..... | Oakburn..... | P.C. |
| Portage-Neepawa..... | G. C. FAIRFIELD..... | Portage la Prairie..... | P.C. |
| Provencher..... | W. H. JORGENSEN..... | Morris..... | P.C. |

**Electoral Districts, Names and Addresses of Members of the House of Commons as Elected
at the Twenty-Fourth General Election, Mar. 31, 1958—continued**

| Province and Electoral District | Name of Member | P.O. Address | Party Affiliation |
|---------------------------------|----------------------------|-----------------|----------------------|
| Manitoba—concluded | | | |
| St. Boniface | L. RÉGNIER | St. Boniface | P.C. |
| Selkirk | E. STEFANSON | Gimli | P.C. |
| Springfield | W. V. YACULA | Winnipeg | P.C. |
| Winnipeg North | W. M. SMITH | Winnipeg | P.C. |
| Winnipeg North Centre | J. MACLEAN | Winnipeg | P.C. |
| Winnipeg South | G. C. CHOWN | Winnipeg | P.C. |
| Winnipeg South Centre | Hon. G. CHURCHILL | Ottawa, Ont. | P.C. |
| Saskatchewan— | | | |
| (17 members) | | | |
| Assiniboia | H. R. ARGUE | Kayville | C.C.F. |
| Humboldt-Melfort | R. RAPP | Spalding | P.C. |
| Kindersley | R. L. HANBIDGE | Kerrobert | P.C. |
| MacKenzie | S. J. KORCHINSKI | Rama | P.C. |
| Meadow Lake | A. C. CADIEU | Spiritwood | P.C. |
| Melville | J. N. ORMISTON | Cupar | P.C. |
| Moose Jaw-Lake Centre | J. E. PASCOE | Moose Jaw | P.C. |
| Moose Mountain | R. R. SOUTHAM | Gainsborough | P.C. |
| Prince Albert | Rt. Hon. J. G. DIEPENRAKER | Ottawa, Ont. | P.C. |
| Qu'Appelle | Hon. F. A. G. HAMILTON | Ottawa, Ont. | P.C. |
| Regina City | K. H. MORE | Regina | P.C. |
| Rosetown-Biggar | C. O. COOPER | Hawarden | P.C. |
| Rosthern | E. NASSERDEN | Warman | P.C. |
| Saskatoon | H. F. JONES | Saskatoon | P.C. |
| Swift Current-Maple Creek | J. MCINTOSH | Swift Current | P.C. |
| The Battlefords | A. R. HORNER | Blaine Lake | P.C. |
| Yorkton | G. D. CLANCY | Raymore | P.C. |
| Alberta— | | | |
| (17 members) | | | |
| Acadia | J. H. HORNER | Pollockville | P.C. |
| Athabasca | F. J. BIGG | Westlock | P.C. |
| Battle River-Camrose | C. S. SMALLWOOD | Irma | P.C. |
| Bow River | E. M. WOOLLIAMS | Calgary | P.C. |
| Calgary North | Hon. D. S. HARKNESS | Ottawa, Ont. | P.C. |
| Calgary South | A. R. SMITH | Calgary | P.C. |
| Edmonton East | W. SKOREYKO | Edmonton | P.C. |
| Edmonton-Strathcona | T. J. NUGENT | Edmonton | P.C. |
| Edmonton West | M.-J.-A. LAMBERT | Ottawa, Ont. | P.C. |
| Jasper-Edson | H. M. HORNER | Barhead | P.C. |
| Lethbridge | D. R. GUNDLOCK | Warner | P.C. |
| Macleod | L. E. KINDT | High River | P.C. |
| Medicine Hat | E. W. BRUNSDEN | Brooks | P.C. |
| Peace River | G. W. BALDWIN | Peace River | P.C. |
| Red Deer | H. G. C. ROGERS | Red Deer | P.C. |
| Vegreville | F. J. W. FANE | Mundare | P.C. |
| Wetaskiwin | J. S. SPEAKMAN | Wetaskiwin | P.C. |
| British Columbia— | | | |
| (22 members) | | | |
| Burnaby-Coquitlam | E. REGIER | East Burnaby | C.C.F. |
| Burnaby-Richmond | J. A. W. DRYSDALE | Vancouver | P.C. |
| Cariboo | W. C. HENDERSON | Rolla | P.C. |
| Coast-Capilano | W. H. PAYNE | West Vancouver | P.C. |
| Comox-Alberni | H. C. MCQUILLAN | Courtenay | P.C. |
| Esquimalt-Saanich | Hon. G. R. PEARKES | Ottawa, Ont. | P.C. |
| Fraser Valley | W. H. HICKS | Chilliwack | P.C. |
| Kamloops | Hon. E. D. FULTON | Ottawa, Ont. | P.C. |
| Kootenay East | M. L. McFARLANE | Cranbrook | P.C. |
| Kootenay West | H. W. HERRIDGE | Nasikusp | C.C.F. |
| Nanaimo | W. F. MATTHEWS | Nanaimo | P.C. |
| New Westminster | W. A. McLENNAN | New Westminster | P.C. |
| Okanagan Boundary | D. V. PUGH | Oliver | P.C. |
| Okanagan-Revelstoke | S. A. FLEMING | Vernon | P.C. |
| Skeena | F. HOWARD | Terrace | C.C.F. |
| Vancouver-Burrard | J. R. TAYLOR | Vancouver | P.C. |
| Vancouver Centre | D. JUNG | Vancouver | P.C. |
| Vancouver East | H. E. WINCH | Vancouver | C.C.F. |
| Vancouver-Kingsway | J. F. BROWNE | Vancouver | P.C. |
| Vancouver-Quadra | Hon. H. C. GREEN | Ottawa, Ont. | P.C. |
| Vancouver South | E. J. BROOME | Vancouver | P.C. |
| Victoria | A. D. McPHILLIPS | Victoria | P.C. |

Electoral Districts, Names and Addresses of Members of the House of Commons as Elected at the Twenty-Fourth General Election, Mar. 31, 1958—concluded

| Province and Electoral District | Name of Member | P.O. Address | Party Affiliation |
|---|-------------------|------------------|-------------------|
| Yukon Territory— (1 member) Yukon..... | E. NIELSEN..... | Whitehorse..... | P.C. |
| Northwest Territories— (1 member) Mackenzie River..... | M. A. HARDIE..... | Yellowknife..... | Lib. |

Page 60, Provincial Governments

With reference to the footnote to page 60, a provincial election was held in only one province between Mar. 31, 1957, and the date of going to press (July 1, 1958)—Manitoba on June 16, 1958. The Ministry as at July 1 was as follows:—

Fifteenth Ministry—Manitoba

(Party standing at latest General Election, June 16, 1958: 26 Progressive Conservatives, 19 Liberal-Progressives, 11 Co-operative Commonwealth Federation and 1 Independent.)

| | |
|---|------------------------------|
| Premier and Acting Provincial Treasurer..... | Hon. CHARLES DUFFERIN ROBLIN |
| Deputy Premier, Minister of Agriculture and Acting Minister of Public Works..... | Hon. ERRICK F. WILLIS |
| Attorney General..... | Hon. STERLING LYON |
| Provincial Secretary..... | Hon. MARCEL BOULIC |
| Minister of Labour and Acting Minister of Municipal Affairs.... | Hon. JOHN W. W. THOMPSON |
| Minister of Education..... | Hon. STEWART McLEAN |
| Minister of Health and Public Welfare..... | Hon. GEORGE JOHNSON |
| Minister of Mines and Resources and Acting Minister of Industry and Commerce..... | Hon. GURNEY EVANS |
| Minister of Public Utilities..... | Hon. JACK CARROLL |

Page 76, Federal Royal Commissions

| Nature of Commission | Commissioners | Date |
|---|---|---------------|
| To inquire into the Export of Energy and sources of energy in Canada. | HENRY BORDEN, Chairman J.-LOUIS LEVESQUE GEORGE EDWIN BRITNELL GORDON G. CUSHING ROBERT D. HOWLAND LEON J. LADNER R. M. HARDY | Oct. 15, 1957 |
| To inquire into the extent and causes of the price spreads on fish and farm products between producer and consumer. | ANDREW STEWART, Chairman DORTHY WALTON HOWARD MAC KICHAN ROMEO MARTIN W. M. DRUMMOND CLEVE KIDD BERNARD COUVRETTE | Dec. 10, 1957 |
| To inquire into the dispute between the Canadian Pacific Railway and the Brotherhood of Locomotive Firemen and Enginemen. | Hon. Mr. Justice ROY LINDSAY KELLOCK, Chairman Hon. Mr. Justice CAMPBELL C. McLAURIN Hon. Mr. Justice JEAN MARTINEAU | Jan. 17, 1958 |
| To inquire into the distribution of railway box-cars for prairie grain movement. | Hon. JOHN BRACKEN | Jan. 31, 1958 |

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NOTE.—This Index does not include references to Special Articles published in previous editions of the Year Book. These are listed at pp. 1247-1253.

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1 Sherrell Co. Inc. Miami FL 33134 (305) 355-1000 Co.
2 Hubert Inc. Mining and Shelling Co. Ltd. Cuba 727-1111 ext.

Consolidated National Warehouse **UNION**
 Kansas City, Mo. 64108
 (816) 431-1000

1. **Eastern Mining Ltd.** (NYSE:EMD) - **Copper, Zinc, Gold, Silver**
 2. **National Lead Inc.** (NYSE:LEAD) - **Lead, Zinc, Silver**
 3. **Placer Dome Inc.** (NYSE:PLD) - **Copper, Zinc, Gold, Silver**
 4. **Placer Dome Inc.** (NYSE:PLD) - **Copper, Zinc, Gold, Silver**
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ALBERTA
Canadian Sul Co Ltd The Sul

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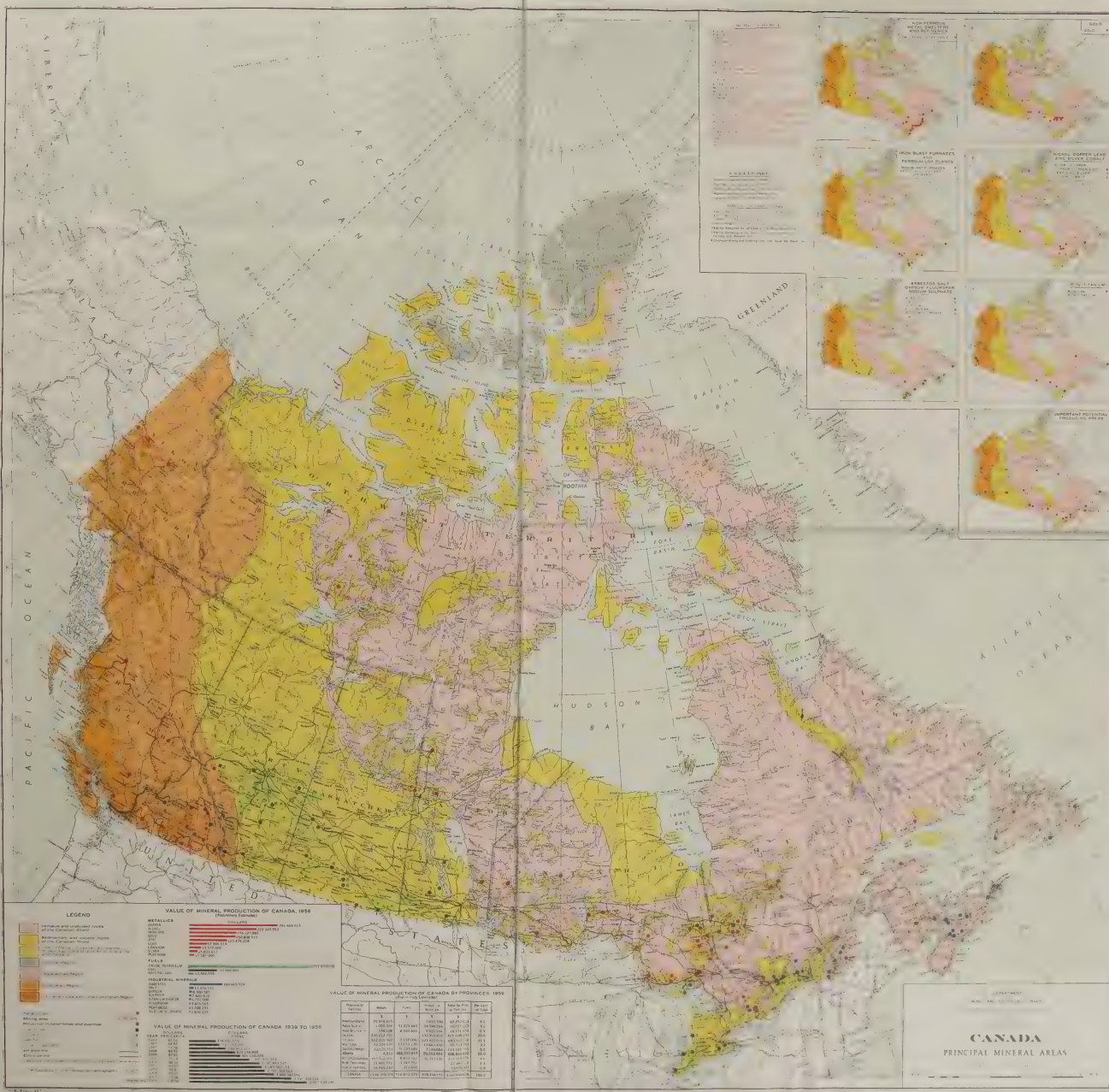
² Yekah Consolidated Gold Corp. Ltd., The Gold

NORTHWEST TERRITORIES

- 1 **Extensive Mining and Refining Ltd.** Uranium, Radium, Silver
- 2 **Consolidated Discovery Yellowknife Mines Ltd.** Gold
- 3 **Consolidated Mining and Smelting Co. of Canada Ltd.** The (Cops)
- 4 **Giant Yellowknife Gold Mines Ltd.** Gold

† Mild at the hole gold level is about the property name used.

2 Clay Products and Structural Materials not shown



DECISION 1976

NEW BRUNSWICK
1. Stary Creek (in Glen)

ONTARIO

MANITOBA
North, Centre
South, West

SASKATCHEWAN

94

100

A L I
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DR

COLUMBIA
 1964

100



Répartition de la population Canada 1956

Prepared from Census 1956 data by the Dominion Bureau of Statistics.
To be used as an overlay on the accompanying Principal Mineral Areas map.





